CHAPTER II

"AUTO-HISTORY"

(Including Rock-Paintings)
Prehistoric Background

Stone Age Cultures:— "The history of man began when he first appeared on the face of this earth. The geologists and the paleontologists tell us that this incident took place about two million years ago."¹ After studying the glacial and inter-glacial deposits in India, and having correlated them with the human cultures, PATERSON and STEELE came to the provisional conclusion that the earliest man in the Sohan valley lived sometime towards the end of the second glacial period, or about 4,35,000 years ago.² In the opinion of H.D. Sankalia the Early Stone Age Culture can be dated back about 1,50,000 years.³

Mālwā is an important region for the study of stone Age culture. Like the Siwaliks, the Narmadā valley yielded potential pleistocene fossils and human artifacts. In the chambal valley and the Shīvnā valley also, a large number of palaeoliths have been discovered. The Hand-Axe culture remained dominant in this area. From the remains of the Lower Palaeolithic, Middle Palaeolithic and Microlithic cultures, it is possible to form some idea of the evolution of the stone Age cultures. Those of Mālwā were related to those of other regions, but they are also possessed their own individuality. About the origin of these cultures, nothing can be definitively stated.⁴
I. LOWER PALAEOLITHIC CULTURES:

The Lower Palaeolithic culture of India may be divided into two groups with distinct geographical features - (1) The Sohanian culture or the Pebble culture, or the chopper-chopping culture, and (2) The Hand-Axe culture. The Sohanian culture seems to have originated in the Punjab and was generally confined within its boundary, where as the Hand-Axe culture, though of equal antiquity, is centred in Peninsular India. In Tulwa the Hand-Axe culture remained dominant, though traces some places. Hand-axes and cleavers were the main components of the Tulwaian Lower Palaeolithic industry. It is an industry in which core and flake techniques are immediately associated with each other.  

1. Exploration of Narmada Valley: - DE TERRA and PATERSON has been explored the Narmada valley in the year 1873 A.D. A Palaeolithic tool was found at Shutra in association with fossil mammals. Later, the Narmada basin between Hosangabad and Narsinghpur was also surveyed by them in 1935, and a correlation of the stratigraphy, the tools, and fossil evidence, was attempted.  

The first palaeolithic tool was discovered in India in 1863 by Robert Bruce Foote. In 1866 W.L. Wilson collected palaeoliths from Saugar, Damoh, Bundelkhand and Samesh and Rewa. During the past 122 years, a large number of stone age sites all over the country have been brought to light and two
distinct palaeolithic industries of north and peninsular India had been identified. Madhya Pradesh has been their meeting ground. The Vindhayas have become important for the study of stone Age because of its uniform stratigraphy as revealed by the river-sections and cutting in the nullahs. The entire area is rich both in implements and fossils. Many fossils have also been collected by various explorers from the Narmada particularly from the Barmanghāt.

A fossilised tusk of an extinct elephant from Hoshangabad collected by A.P. Khatri, now in the Natural History Museum, New Delhi, is the largest. Khatri's other discoveries include skulls of hippopotamus, old horse, ancestral bull, primitive swine and a tooth (Molar) of a man who lived 5,00,000 years ago. But the skull of an elephant discovered by V.S. Wankar from Devākachhār in the year 1980, appears to be the largest in the world. He also picked up a lower jaw of hippopotamus from Barmanghāt (Sāgar-Narsinghpur Road). Even three fossils have been found in a large area of Mandla district in Madhya Pradesh.

Dr. H.D. Sankalia and J.G. Supekar previously surveyed stretches of the Narmadā and its tributaries in the districts of Hoshangābād and Narsinghpur and identified three district traces at Sagunghāt on the Narmadā. The earlier two respectively yielded early and middle stone Age tools.
2. **Chambal Valley:** On the chambal basin, the first discovery was of a grey quartzite houcher from Neemuch, in the latter half of the last century, by an unknown geological explorer. V.S. Wakankar discovered a number of palaeoliths at Mandaur. Afterwards, the river chambal and its tributaries, particularly the Śivnā, have been carefully surveyed by A.P. Khatri. The most important sites are the two localities, Rāmghāt and Shamshāṅghāt, at Mandaur and Nāhargarh, on the Shivnā. The cemented grave has yielded large flakes with prominent bulbs of trap, as well as Abbevillian-Acheulian hand-axes. Other collections include a large percentage of hand-axes, cleavers, scrapers, cores with 'M' shaped jagged edges and flakes. The large flakes of trap with prominent bulbs lying right on the rock insitu prove the existence of the early clactonian technique and recall similar flakes on the Narmada.

The area comes under the category of hand-axe cleaver tradition, but pebble tools are found within the basins of the Gambhīr and Chambal, in association with hand-axes and cleavers, but their number is not very large. They are found at Jonita but are absent in the Shivnā.

3. **Betwā Valley:** A large number of pebble tools, choppers, hand-axes and cleavers were found on the surface of the Betwā. The tools of brown sandstone pebble were generally old, but
the hand axes and cleavers of red sandstone were fresh. Some cleavers and hand-axes belonging to the early Stone Age were collected at the top of Shyâmlâ hill in Bhopal and Koṭhâ, Korwâi, Khejurî, Gâmkâr, Gyâraspur (nalâh), Goâdwâsâ, Teelâ and Badoh-Pâthârî, all in Vidishâ district.11

**Different Types of Tools:** Besides hand-axes and cleavers, the other components of this culture are scrapers, cores, flakes and pebble tools. The hand-axes are found from the crudest Acheulian type to the most advanced Acheulian specimens, with complete symmetrical body, straight edges, and controlled, shallow and flat flaking. Their shapes include pear, pick, almond, ehorate, ovate, double pointed, single pointed, triangular and sub-triangular. The cleavers are either 'U' shaped, 'V' shaped, or rectangular, with their cutting edges varying from straight, oblique, convex to flaring types. They occur on core as well as on side or end flakes. Sometimes the nature of the flake is not distinguishable because of the complete chipping of the edge. The flakes have simple platform and obtuse angles.12

**Material of the Tools and Technique:** Generally, quartzite of a fine grained variety is the common raw material. Sometimes dolerite, trap and Jasper, were also used. Stone-on-stone technique and wood-on-stone technique, or wooden hammer technique were employed for preparing these implements. In
the stone-on-stone technique, Anvil or Block-on-Block, or direct rest percussion and direct free hand percussion methods have been employed.13

Discovery of similar tools in a similar context at Maheshwar, Mandsoor, Nāhargah on the Shivnā; Sasai, Sonīta and a few other places on the chambal; Morwan, Ratangana, Kalyānpura on the Kadmali and Gambhīra and Kothā, Korwā, Khejuri, Jamākar, Gondwāsā, Tealā and a few others on Betwā valley, enable us to say that the Mālwa including Vidishā region was also inhabited during the stone Age, and further, that it had witnessed the same climatic conditions as those existing on the Narmadā in the past. As known from the types of tools, the man on the Narmadā was perhaps not different from that on the chambal and Betwā.

The People And Their Habits:— The method of living and habits of the Lower Palaeolithic Man was seems to mainly based on the Geographic, climatic and ecological factors, which are helpful to know in this direction. European scholars have worked on these lines in Europe and Africa.

Zeuner14 thought that the hand-axe was an excellent tool for digging up roots, grubs and other food from the ground (though it can be useful for many other purposes as well, for instance, for making notches in trees to facilitate climbing). Hence the hand-axe (or the Abbévillio-Acheulian) culture was
of vegetable and grub gatherers. *J. D. Clark* has, however, suggested that these were used as meat mattocks, hence the edges of these tools are rarely found blunted.

Likewise *Zburner* associated the makers of the large clactonian flakes and hallow scrapers with forests, and the Levalloisian and the Mousterians, who made beautiful flakes in a specialized manner, as typical hunters. Such flakes would be extremely suitable for cutting and dressing carcasses.

*MacBurney,*¹⁵ after studying the distribution of hand-axes and flakes in western Europe, has postulated that the hand-axe makers preferred the low, maritime, and warm regions, whereas the flake fabricators — the Levalloisian, for instance, liked the uplands which was comparatively colder.

We do not have such sharp climatic and regional differences in India as found in Europe. We have two cultures, namely, (1) Pebble and flake culture, and (2) the hand-axe culture. Both are of equal antiquity. The former does not belong to a cold phase. The hand-axe people might have avoided thick forests, but it does not seem to be reasonable that they subsisted on vegetables and shrubs alone. They must have been hunters as well. Similarly, the people who used flakes were hunters and forest dwellers. They could not have lived in thick forests and flourished
on animal food alone.

The distribution of hand-axe suggests that the Lower Palaeolithic People lived on river banks in the open or in the edge of the forests. They avoided higher altitudes and heavily forested areas, because vegetables, animals and raw material for making tools were scarce at these places and were not easily available. Water was also prime necessity. 16

II. MIDDLE PALAEOLITHIC CULTURE:

The evidence for existence of a distinct second Palaeolithic industry was first obtained at Nevāsā. Before this it was not recognised, and was known by different names. At Narsinghpur and Hosangōṇḍā, PATRÉ and PATRÉSON discovered it in the basal gravels of the black soil of Harmedā and designated it as the 'Black Soil Industry' or Proto-Neolithic. 17 It was also called 'Proto-microlithic' 18 and Epi-Palaeolithic. 19 In order to avoid terminological confusion, the term series II was accepted. As definite proof of independent existence was obtained from Nevāsā, it was called Nevāsian after the type site Nevāsā. From both the chronological and typo-technological significance, it is now known as 'Middle Palaeolithic'.

Middle Palaeolithic Tools:— The middle palaeolithic culture is known from the discovery of two types of tools. One is
found in situ in the sections exposed on river boundary and another on the surface. The value of the former lies in the fact that they are next to hand-axes. DE TERRA and PATERSON found these tools in the basal gravels of the Black soil in the Narmada at Nashingpur and Hoshangabad.²⁰ H.D. Sankalia and Subba Rao tried to show that these tools occur in situ in terrace II of the Narmada at Maheshwar.²¹ Huge factory sites of this culture was discovered at Dongargaon and Choli on either side of the Narmada. Besides Narmada valley, the Chambal valley and Betwa valley have also yielded a large number of these tools at the various sites.²² On the surface and in situ Mandsor, Nāhargām, Shīvā, Smāshāngāt (Mandsor) etc. are located on the Chambal valley. A factory-site material was found at Mandsor on the Kharki-mātā site. Good specimens of tools of series I and II were found in the rivulet near Manotī and Āmrī. Some interesting Middle Stone Age tools were also reported from the Betwa and its tributaries.²³ Teśā, Gyāraspur and a few other sites in Vīdīshā district have proved the existence of the Middle Stone Age culture. Various types of tools have been also collected from these sites.²⁴

Characteristics of the Tools:— These tools are of typical flake nature. Flakes have simple platforms with obtuse striking angles and hence are cheltonian in technique. These are smaller than those of Early stone Age. No Levallois influence is observed so far. Typologically, the industry
consists of various types of scrapers, points, fluted and irregular cores, flake blades, etc. These are made of new material, such as jasper and chert. The tools found near the factory site are fresh, while those found in river bed are somewhat rolled. Scrapers were meant for dressing skins and handles of trees, knives for cutting and chopping, and pointed tools for piercing wood and bone.

The middle Palaeolithic culture of Malwa is related to this type of culture in other parts of India, though there are regional variations owing to ecological, geographical, and other factors. 25

Climatic Conditions And Environment 26: The climatic conditions and environment may be inferred from the study of the nature of deposits found in the rivers. The changes in the deposits may be due to the cycle of a heavy wet phase followed by a drier phase, and then a lighter wet phase. Gradually, the climate became drier. When the Narmada again raised to level and then once again dropped it, owing to a water climate, the first Stone Age Man left the valley. When the river rose again for the third time, and shed its load against other deposits, the Middle Stone Age Man occupied the region. He lived near the foot-hills, a region where raw material in the shape of nodules of agate, Jasper and other fine grained stones, was easily available. He made smaller tools known as scrapers, for dressing the skins of animals, and used
wood and bone for handles. There are also points and chisel-edged tools. These imply the invention of the bow and arrow for hunting.

III. MESOLITHIC CULTURE:

The term 'mesolithic' is used to distinguish a transitional phase from the Palaeolithic to Neolithic culture, and it bridges the gulf between the two. It is different from the early period in climate, technology, in economic and other spheres. The old glacial conditions had more or less gone, and the dry period had started with the climatic changes, the flora and fauna altered, as also the implements. Technologically, tiny tools known as 'microliths', highly improved upon the earlier ones, were devised. There is the continuation of the Palaeolithic economy, but the emphasis shifted from big game to small game hunting. The occupation of sites was more extensive and intensive than that of the two proceeding Stone Age cultures. All microliths do not suggest or stand for a Mesolithic stage of culture, but context and stratigraphy can only prove their genuineness. They may be placed between 10,000 and 4000 B.C.27

A.P. Khatri28 collected several microliths from the sites in the valley of the chambal and its tributaries. A mound at Ashtā on Pārvati, a tributary of chambal, yielded microliths.29 Several other sites in Mālwā have been noticed as Microlithic sites.30
PECULIARITIES OF MĀLWA MICROLITHS:

These Microliths found in Mālwa have their own peculiarities. They generally occur on whitish translucent chalcedony or carnelian, and rarely in pure quartz or crystal. They occur in an unstratified context. These are different types, such as fluted and irregular cores, scrapers, and points, and few blades. They have non-geometrical shapes. No pottery has been found in association with them.

It is probable that these microliths of Mālwa are of pre-chalcolithic times. As these are surface collections, it is difficult to assign any date to them. These tools occur in the area where we have a well stratified chalcolithic blade industry. These chalcolithic blade tools, like microliths, were prepared from chalcedony. Hence they bear a genetic relationship with the microliths. Thus, we may call them pre-chalcolithic. As well, a large number of microliths were located in the Banäs Basin of Rajasthān, adjacent to Mālwa, and some were excavated at Ahār and Gilaud. All these do not belong to the copper or chalcolithic deposits, but to an earlier phase of hunting and forest culture. Besides they are free from crested technique. The Microliths of Mālwa seem to be contemporaneous with those of Banäs. Like them, they belong to Mesolithic hunter–food gatherers, who occupied the area before the establishment of early peasant settlements there. We may say that this region too, the
Microlithic culture belongs to a period earlier than 2000 B.C. 31

MICROLITHS OF ROCK-SHELTERS AND CAVES:

Microliths have also been discovered in rock-shelters and caves. At Pachmarhi in the Mahadeo hills, HUNTER dug a rock-shelter and found microliths, and GHOSH obtained them from Bandh Bari cave near Pachmarhi. A large number of microliths consisting of blades, points, triangles, lunates, etc. most of them showing geometric shapes, were collected from the rock-shelters at Adamarh near Hoshangabad. 32 Tools from this region had been collected earlier by M. Ghosh and D.H. Gordon. They were found in the pointed rock-shelters at Kabre-Pahar. 33 These were also obtained in the Dharmapuri rock-shelters near Bhopal. 34 A few such tools were also collected from the vicinity of the rock-shelters at Chandigarh in Tahsil Burhanpur, and at Ghatak in Tahsil Khandwa. 35 In the opinion of H.D. Sankalia, 36 the whole Vindhy range from west to east, is not only a prolific source of microliths, but perhaps holds the key to the microlithic or mesolithic problem in central India.

A few trial trenches in the Auditorium rock-shelters at Barkhera (Bhimbaithakar, dist. Raisen in M.P.), 32 kms. south of Bhopal, has yielded an interesting sequence of the stone Ages. It is remarkable that this type of sequence in regard to rock-paintings has been revealed for the first
time in this country. The period I of rock-shelters yielded the palaeoliths. In period II, these tools were replaced by the Middle Stone Age tools. For preparation of these tools, only quartzite stone was selected. The third stage is represented by microliths having geometric and non-geometric forms. These tools were from flint stones. A large number of such tools were found in the excavated trench at Barkherā.

After the microlithic people, the area was occupied by those who were using pottery. The pottery revealed its close affinity with the Hālwa ware current during the chalcolithic period. It is significant that this period yielded a human burial with a complete human skeleton assignable to c. 2000 and 1900 B.C. on the basis of the associated material.

The man using the early stone-age tools lived in river valleys and in open forests. In the next stage of Mesolithic culture, man learnt to live in rocky cave-shelters and used tiny tools. Some of these rocky-shelters contain paintings. They furnish the idea of the cultural life of the people. The earliest paintings belong to a time when man was primarily a hunter and food-gatherer.

The excavations at the above sites show the evolution of microliths from a non-geometric and non-pottery level at the very lowest, to a pottery using geometric
microlithic level. This shows microliths were of early times. Their antiquity is further confirmed because at Adamgarh, numerous microliths were found in black soil. It seems that the microliths found in these rocks probably belong to a period earlier than 2000 B.C.

Sri M.D. Khare has discovered in Jan. 1977, a group of painted rock-shelters in the Ahmadpur hill, about 20 km. from Vidiša and 2 km. north-west of Bileri, on Vidiša-Berasia road. Besides paintings, another feature of this site is the abundance of microliths and total absence of palaeoliths on the slope in front of the shelters on south-eastern side and the presence of only palaeoliths on the south-eastern slope. Dr. Nakanka has brought to light a series of about 100 painted rock-shelters at Māraya, about 20 km. north-east from Ganj Bāsodā in Vidiša district. Some of these paintings belonging to the Stone Age cultures.

A large number of pre-pottery microliths, mostly of chalcedony, agate, quartz have been recovered from a deposit resting over the natural soil at Rangai (near Vidiša). As many as 300 artefacts including the flakes and cores have been collected from the control pit measuring 1x1 m.

Use of Microliths— Microliths were not only employed by the hunting and food producing Neolithic people, but were
common also among the food producing communities and urban societies. The reason was that there was a short supply of copper and bronze, and these metals were used only by the rich. The common people continued the use of microliths. There was a marked difference between the tool typology of the hunting-food-gathering communities. The relationship between the Mesolithic stone industries and the chalcolithic Neolithic blade industries in the different regions is a problem.43

**NEOLITHIC CULTURE**:

Neolithic culture means technological and economic changes in society. Technologically, it means the grinding and polishing of stones. Economically, it means the transition from food gathering to food production, involving husbandry. It took place in different areas over a great range of time. Manufacture of pottery and the use of metal, were not essential of this culture.

Childe44 defines this culture in an economic sense, meaning a self-sufficient food producing economy. According to V.N. Misra,45 economy rather than technology is the diagnostic trait of the Neolithic. In this way, he includes the chalcolithic cultures of Mālwa in this culture. He is of the opinion that the objects of copper did not change its economy. This view does not seem to be correct. One single copper object is sufficient to classify
the culture as chalcolithic. It means diffusion, and it breaks the isolation. It increases production, and replaces stone axes.  

In Mālwa, one polished axe was found at Navada Toli and one celt was discovered at Maheshwar. One neolithic hand-axe was discovered from the surface exploration and other three neoliths were recovered from excavations at Eran during 1960-61. The site yielded two lithic industries associated with the chālcolithic settlement—neolithic and microlithic. The valuable evidence of the neolithic association was proved by the discovery of three broken neolithic pieces—one from the lower level of the mud defence-wall and two from the habitation. These are well-ground and polished. One complete neolith collected from surface can also be associated with the chālcolithic period. In the absence of the neolithic artifacts in different stages of the manufacture, it is difficult to say whether the tools were manufactured locally or not. All the four tools are finished ones.

The evidence of neolithic settlement encountered in excavation at Eran during 1935-36. In Trench No. ERN 3, handmade corded ware, along with a broken stone celt have been unearthed from a thin graded layer immediately over the black cotton soil. "On account of the disturbance caused by erosion, it was not possible to ascertained whether
the Neolithic folk had any contact with the chalcolithic people."

Three neolithic celts have been collected from the surface at Ëran during 1985-86 and other one in the year 1988. All these evidences indicates towards the Neolithic settlement at Ëran. This phase is also characterised by the occurrence of thick smoky hand-made corded ware with a few sherds bearing finger impressions. Straw and rice-bush were mixed during the levigation. Washed black-on-red, black-and-red, handmade coarse red and thick grey ware are the associated ceramics.

At Rangai (Vidishā), a sterile layer was noticed over the pre-pottery microlithic yielding deposit. The sterile layer is overlain by about 200 cms. thick deposit yielding chalcolithic remains, represented by archaic bulbs of terracotta, microliths and cores, paste beads, painted pottery and neolithic burnished red ware. From the upper most levels of this deposit was also picked up a polished stone axe.51

Nothing can be said positively about the origin of the Neolithic culture. M. Wheeler52 tentatively suggested that it was a movement from north-east to south-east. He further suggested that the axes might have been derived via China from central Asia.53 R. Alchin,54 on the contrary, argues for an Iranian origin. According to B.K. Thapar,55
the south neolithic culture is indigenous, but the neolithic culture of North and East India, originated from China. V.N. Misra\textsuperscript{56} believes that the neolithic culture first developed in West Asia in about 7000 B.C. C. Krishna\textsuperscript{57} has tried to trace the neolithic cultural pattern in Madhya Pradesh, but the evidences are inadequate.

**PROTO HISTORY**

**Chalcolithic Culture**\textsuperscript{38}:

A glance at the physical features of the present Madhya Pradesh would indicate that the major parts of this extensive region are mostly covered with hillocks and thick forests. The Vindhyas and the Satpurās form the main mountain ranges here. The chief rivers of Madhya Pradesh, on the banks of which various cultures flourished from the pre-historic times, are Chambal, Betwā, Son, Tāpti and Mahanadi. The mountain ranges, rivers and thick forests, along with the climatic conditions, were responsible not only for the creation of the rich flora and fauna of Madhya Pradesh, but they had also their impact on the development of the cultural pattern of the region.

In the proto-historic times the present Malwa particularly its eastern and south-eastern parts, made a more rapid cultural development than the other parts of Madhya Pradesh. The chief region of this seems to be that
apart from enjoying a bracing climate, these parts of Malwa were on the direct north-western route on which were located the developed town like Anah, Kalibangan, Lothal, Roper and still further, Harappa, the chief centre of a great chalcolithic civilization.

The pre-historic face of Madhya Pradesh is much more distinct now than it was a half century ago. The recent explorations in the state have brought to light a very large number of prehistoric stone tools of various types. The recent discoveries of several thousands of rock-shelters, mostly having archaic paintings, are now utilized with great profit to unravel the mysteries of the cave-men. Quite a large number of painted rock-shelters have been found in the districts of Sehore, Bhopal, Kaisan, Hoshangabad and Sagar. These districts are located in the Narmada-Betwa Valleys. Very recently several hundred such shelters having interesting paintings in them have been discovered near Bhānpur in the Mandsaur district. Dr. V.S. Wakankar had reported a series of about 100 painted rock-shelters at Māser (dist. Vidishā), besides Ahmedpur rock-shelters (Vidishā) brought to light by Sri M.D. Knare in 1977. 59

The plentiful plethora of these rock-paintings is assignable to a very wide range of period, from the pre-historic times to about c. 1100 BCE. The colours used in the paintings are usually red, ochre, yellow, white, green
and blue. The scenes portrayed in most of the shelters show various types of animals, birds, snakes and other reptiles, rivers, trees, hunting scenes and animal fights. Domestic life is also represented in the paintings through music, dance, fire-worship, honey-collecting, etc.

With the beginning of the village life, after the proto-historic people had known the construction of huts and mud-houses, the dwellers of the rock-shelters came into contact with the villages. This gradually resulted in transactions of articles between the two. In some of the rock-paintings can be seen interesting depictions of carriers benaṅgīs (Sanskrit vinaṅgijās) used for carrying articles to some distant places. In quite a good number of rock-paintings are portrayed different types of weapons and other implements which was actually used by the cave-dwellers and the like of which have been discovered in several caves at Ābchand (dist. Sāgar), Bakkherā, Kharwāi (Raisen), Ādamgarh (Hoshangābād), Bānškherā, Jeeṃkherā, Annadpur and Māser (dist. Vidishā) and several other sites. They are usually the microlithic tools, such as blades, knives and stone arrow-heads.

The excavations conducted at some of the rock-shelters sites, such as Bhāmbaitnakā (near Bakkherā), Ādamgarh and Kharwāi, have brought to light very interesting results. The Bhāmbaitnakā excavations have revealed a
cultural sequence right from the late stone age to the early historical period. The palaeolithic phase here was followed by the people using microliths. They were succeeded by those using chalcolithic pottery known as the Malwa ware. At Adangarh microlithic tools, pottery and other objects have been found in rich quantities. At Kharwai, the chalcolithic phase has come to light apart from the fact that the people there had known good defence devices to protect themselves. The structures have also been discovered at Kharwai, which may be called the precursor of the later Megaliths. 61

The Proto-historic phase is undoubtedly very interesting. Apart from the painted rock-shelters, which have furnished a rich source for our knowledge, the excavations and explorations conducted at several sites in Madhya Pradesh have brought to light valuable material pertaining to the chalcolithic phase. The recent studies have shown that it was on the banks of three rivers - Chambal, Betwa and Narmada that various facts of culture had almost an unhindered growth from about the beginning of the 2nd millennium B.C. to C. 600 B.C. 62

The transition from stone age to chalcolithic is a great landmark in history, because it laid the foundation of civilization. It brought about great revolutionary changes in economy, from the hunting and food collecting stage to a pastoral and agricultural stage. The self-sufficiency
of the stone age people was broken and trade in raw material and finished goods started. As a result of this, relations between isolated regions were established. The discovery of metal is also an important factor, because it laid to get technological advancement.

General Characteristics:-

In chalcolithic culture, a few objects of copper in small quantities, are found together with pottery. Whether these few copper objects were locally made or imported, does not matter. The use of the copper is the leading characteristic of chalcolithic culture. Together with this, painted pottery and lithic industry are found.

Mālwā Chālcolithic:- Among the different kinds of painted pottery, red pottery painted with black designs is predominant. It is also called painted black-on-red ware, or Mālwā ware. Generally, it is found in abundance at all excavated sites. It is highly advanced and has various shapes and designs. An invariable concomitant of this pottery was a lithic industry, in which parallel-sided blades predominated. Hence, it is called the 'Short Blade Industry'. Beads, terracotta figurines, etc. are also associated with this culture.

Distribution of Chālcolithic Sites:- Several chalcolithic sites have been discovered in the valleys of Chambal, Narmādā,
Betwā and other rivers. This shows the wide spread of this culture in the area which was colonised by the people in a period from about 2000 B.C. to 800 B.C.

With a number of sites explored and excavated, central India has become a very crucial region for the study of chālcolithic culture. Some of the painted rock-shelter-sites, where the chālcolithic antiquities have been found, were also brought to light. Dr. Wākankar has classified and published in detail the names of these sites. The names of more than one hundred explored chālcolithic sites (mostly located in Malwa region) were listed by him.

Excavations:— Excavations at some of the chālcolithic sites such as Kāyathā, Maheshwar—Navdauli, Nāgdā, Xvra, Runījā, Daṅgwādā, Pipiyā—Lorkā, Xran, Basnagar—Xumjai, Silaulī Kunrā, Tripurī and Kākrentā, etc., have brought to light the stratified chālcolithic layers along with their respective antiquities. These excavated sites have their own peculiar features, but they give a fairly good picture of chālcolithic people spread over the Narmadā, Chambal, Betwā and the other adjacent river-valleys. Some important sites are as follows:

1. Kāyathā : Chinotī Kāli Singh valley
2. Runījā : Maleni and its tributary valleys
3. Nāgdā, Xvarā and Daṅgwādā : Lower Chambal valley
4. Silaulī Kunrā : Chambal valley (Kuwarī river)
5. 5. Shan, Basnaigor, Rangal, Piplya – Lorka  : Betwa Valley.

6. Maheshwar-Nadvatoli  
Tripuri, Kakrantha  : Narmada Valley.

The excavated sites adjacent to Vidian region will give an idea to the nature and extent of the Proto-historic (Chalcolithic settlement in the Eastern Malwa. A short description to some of the important excavated sites is given hereunder:

1. Kayathar  - Kayathar is situated on the bank of the Chhoti Kali Sindh river, about 30 km. east of Ujjain. A small scale excavation conducted during 1964-1965 revealed material of considerable interest here. The periods were noticed preceding the arrival of iron there.

   Period I, which started on the black cotton soil, showed two phases of cultural development. The earlier of these dated to 201 B.C. was distinguished by the use of wheel-made, well fired sturdy ware, often dressed with dark and brown, cream, mauve-purple or dull-red slip and bearing painted designs. The latter phase dated between 1963-1975 B.C. introduced the white-painted black-and-red ware of the Ahir fabric. The dull red ware of the preceding phase, however, continued side by side, though in diminishing order. The use of copper and microlithic blades including lunates and triangles was also noted. The other important finds from these phases included terracotta bulls, showing prominent
hump and horns without any head, ears or legs. These level
is also reported to have produced a Harappan seal. Period
II was represented by the assemblage of the central Indian
chalcolithic culture exemplified by the Black-and-Red and
other associated wares. Remains of houses showing all-round
burning were also exposed. While the floors of the houses
were generally made of burnt lumps of clay and lime, the
walls seemed to have been built of bamboo, plastered over
with mud. Other findings belonging to this period comprised
stone balls, querns, pasties and microlithic blades. The
samples from this period date it between 1675-1380 B.C.

The excavations were continued during the year
1967-68 and they yielded some more material of interest.
Three distinct periods related to proto-historic period were
noticed. In period-I, dated between c. 2200-2000 B.C., were
noticed mud-houses and three distinct ceramic industries
viz. (a) sturdy ware having broad zones of thick chocolate
slip and painted patterns in violet, (b) red painted buff
ware, and (c) plain red ware without slip or wash with
incised decorative patterns. Copper axes, copper bangles,
microliths and necklace beads were also found in the remains
of this period. Period-II dated between 1300-1600 B.C.
indicated the arrival of a new people using white painted
Black-and-Red pottery similar to that of Banás culture.
Abundance of terracotta figurines was a prominent feature
of this period. Large scale burning noticed in the remains of this phase was probably responsible for its decline. Period III was dated between 1700-1300 B.C. and an overlap was noticed between period II and III. Prevalence of black-painted red pottery with associated ware and microliths characteristic of Mālwa ware complex was the remarkable feature of this period. 67

Navdātolī:— Navdātolī is situated on the Narmada, about 93 km. south of Indore. Excavations carried on here by the Deccan college research institute, Poona and the university of Baroda during 1952-53 and 1957-59 have brought to light an important chalcolithic settlement. Detailed report of the first season's work has been published68, but only summaries have been published69 of the later season's work bringing to light a fairly good picture of the chalcolithic settlement of this place.

The excavations have divided the chalcolithic settlement here into four phases: III A, III B, III C and III D. During the first period (III A), the inhabitants used to build round and square or rectangular huts of wattle and daub with plastered floors. Copper was known to these people of which they used to make tools. A stone-blade industry was known to them. Stone-blades are particularly numerous and are very beautiful. There is regular minority of re-touched blades, giving backed or geometrical forms. The
inhabitants were breeding cattle, sheep, goat and pig. Cultivation of wheat, lentils and oilseeds was made by them. Their pottery included painted black-and-red ware, a distinctive red-slipped pottery with black-painted decoration, known as Mālwā ware. Then there was a creamy-white slipped ware with black painted decoration, also closely related to Mālwā ware. A grey ware similar to that of Karnatak and Mahārāṣṭhra was present throughout and it would appear to coincide with the earliest phase in southern Ḍājpūṭā (Arār I A). Among distinctive pottery forms are many hand-made bowls.

In the 2nd phase (III-I) at Navdātoll, which in parts of the site followed a minor burning, the first evidence of rice cultivation is encountered. In pottery, the absence of black-and-red painted ware and prevalence of a series of small goblets on solid pedestals are the main changes.

In the 3rd phase (III-II), more extensive burning may be noticed. The phase seems to have coincided with the arrival of new traits and perhaps also new elements of population from the west. In pottery, a fine red ware, frequently wheel-thrown, with black-painted decoration and with a metallic ring and having comparatively limited number of shapes and designs, technically known as 'Jorwe ware', is a new element. Along with it came a new vogue for spouted vessels,
recalling the 2nd phase of the Neolithic culture of the Karnā-tak region.

The 4th phase (III-D) saw the addition of channel spouted bowls, recalling similar wares in west Asia, and of further pottery recalling the lustrous red ware.

About the date of this culture, a series of eight radio carbon 14 dates have been published.70 The two extreme dates suggested are:

III-A : C. 1660 - 1330 B.C. and
III-D : Around 1440 B.C.

Tripūrī (near village Tewar):

Tripūrī is now represented by the modern village Tewar, about 16 km. to the west of Janalpur. Excavations were conducted here by the Department of Ancient Indian History, culture and Archaeology, University of Sagar in 1952-53. A few sherds of painted black-on-red ware were found in association with micromities from the lowest stratum in one of the trenches there.71 And that led late Dr. M.J. Dixit to postulate the existence of chalcolithic settlement at the site.

The matter was further pursued by Dr. H.D. Shankalia and under his direction excavation were carried jointly by Poona, Baroda and Sagar University in the year 1965-66. Further evidences of chalcolithic settlement at this place could not be confirmed by the excavation.
The excavations were continued by the University of Jagar during the years 1967-71 and it is reported that the latter year, some sherds of chālcolithic pottery have again come to notice. An interesting head-scratcher was discovered in a pit cut into the black cotton soil and has a hole at the top. The microliths, Grey ware, fine red ware having painting on the exterior surface with thick black bands, a piece of perforated pottery and semi-precious stone beads were also discovered.\(^{72}\)

Neatness of chālcolithic finds at Tripuri, may be due to turbulent rains which caused the settlement to be washed away.\(^{73}\)

**Sāra (Dist. Sāgar):** The excavation work at Sāra was started in the year 1960, by the Jagar University, Department of Ancient Indian History, Culture & Archaeology, under the direction Prof. K.D. Bajpai (1960-63), Prof. Sudhakar Pandey (1983-86) and Dr. V.D. Jha (1997-98). During these years several mounds were exposed yielding material of considerable archaeological interest. On the basis of the stratigraphy and the collected material a sequence of four cultures has been obtained.\(^{74}\)

The earliest culture, (Period-I - C. 2000 B.C. to 700 B.C.), chālcolithic in nature, is characterised by the presence of microliths, painted pottery and copper. Among the microliths the predominant type is the parallel-sided
blades, sometimes serrated, and other types, occurring less frequently, being lunates, points, fluted cores and flakes. The rare use of copper was attested to by two fragmentary celts. A Neolithic piece with a sharp edge has been found in surface and three more neoliths were recovered from the excavations.

PERIOD I (C. 2000 B.C. to 750 B.C.):-- The earliest settlers at the site were the people of the chalcolithic Age. They settled down immediately over the natural black cotton soil within the semi-circle provided by the sudden curve of river Binā (a tributary of Sīrār). They manufactured beautiful wheel-turned pottery and used microliths, copper (in meagre quantity) and neolithic implements. On the basis of the pottery, the period can be divided into early, middle and late phases. In all the three phases occurred the Red Ware, painted in black coarse and are usually with incised decorations, Black-and-Red Ware, painted in white over the black interior, and Grey Ware, mostly painted in black. In addition to these, the introduction of a Red Ware, with a deep red slip and shining surface, and the channel-sprouts (sometimes painted in black) characterised the middle and late phases respectively. The other finds of the period included terracotta figurines, bowls in different materials, two fragments of copper celts, a thin round gold piece (plain) and various terracotta human and animal figurines and stone
objects etc.

The floors were made of yellow clay mixed with white Kañkar. No regular plan of the houses could be obtained. Two sets of twin hearths, with raised walls and circular fire pits with rammed floor and slightly raised walls were noticed in this period. However, the most significant discovery of the period was a mud-defence wall and a moat. The mud-wall, made of black and yellow clays, enclosed the semi-circular habitation of the town from the south, other sides having been enclosed by the river. Originally the wall had a basal width of about 30.30 metres and a gap of about 16.47 metres existed between the wall and the moat. The existing maximum height of the wall is 6.41 metres. To the south of the mud-defence wall, and adding another line of defence in that direction, was discovered the ancient moat, caused by digging the clay to level the former. Its width and maximum depth are 36.60 and 3.43 metres respectively.

The evidence described above amply proves that Êran had a rich chalcolithic settlement. The houses were furnished with rammed mud-floors and hearths. On the analogy of other chalcolithic sites, it can be presumed that at Êran also these people lived in houses having mud-walls and thatched roofs. Above all, they lived in a town well defended by the river and massive mud-wall.

The inhabitants excelled in manufacturing fine
pottery, beads and microliths. Their artistic sense is evident from the paintings executed on pots and the use of ornaments of various materials. 78

Reassessment: Some important Carbon 14 dates of the chalcolithic phase of Eran are known to us vis-a-vis the dates of other chalcolithic sites in Madhya Pradesh and Rajasthan. The detailed study of the cultural sequence at Eran, with particular reference to the chalcolithic phase obtained there, has been made by Dr. Bajpai 79 and Dr. Shyam Kumar Pandey. 80

In the light of the c.14 dates, the chalcolithic phase (Period I) has been bracketted between c.2100 B.C. and 1300 B.C. Due to an early date for Iron, known to us, the term "Chalcolithic" at Eran have been restricted upto 1300 B.C. The introduction of Iron at Eran has been taken as a distinctive feature to mark the beginning of the new cultural phase in Central India. In view of the above facts Prof. Bajpai and Pandey have suggested the revised cultural phases of Eran as follows:

Period I (A) - Early chalcolithic C. 2100 B.C. to 1700 B.C.

Period I (B) - Late chalcolithic - C. 1700 B.C. to 1300 B.C.

Period II (A) - Introduction of Iron C. 1300 B.C. to 700 B.C.

Early Chalcolithic ware - revised: (C. 2100 B.C. to 1700 BC)

The early chalcolithic phase is marked by the presence of four types of ceramics (pottery) with the plain Red Ware. These are as follows:
(a) Eran De- Luxe Wares;
(b) Eran Painted Grey Wares;
(c) Kāyāthā Wares, and
(d) Black-and-Red Wares.

**Late Chālcolithic Phase**: (c. 1700 B.C. - 1300 B.C.)

In the late chālcolithic phase at Eran, the following changes in wares noticed:

(a) Construction of a mud-defence wall and moat;
(b) Use of the alāwā ware (orange colour) along with deluxe pottery;
(c) Introduction of channel spouts in the ceramics, and
(d) Increase in the use of alāwā-on-stand.

According to Mr. Sajpai, the chālcolithic complex at Eran is somewhat peculiar in comparison to other chālcolithic sites recently excavated by the Vikram University, Ujjain and the directorate of Archaeology & Museums, M.P., Shapal (i.e. Kāyāthā, Gāsīkā, Bānījā, Rājpālī, and a few other sites like Bāndhūjāmerā (Morenā) and Rāknēthā (Jabalpur).

Period I (both I and II) at Eran has furnished painted black-on-red ware. In fabric and shape, it is much superior to the wares found at Taneswar - Navālotī, Kāyāthā and other chālcolithic sites. This superior ware at Eran can be termed as the 'de-lux alāwā ware'. Besides this ware,
period I at Eran has yielded painted Grey ware, thick sturdy ware akin to that of Kāyaṭhā ware (but not similar to Kāyaṭhā) and Black and Red ware. The painted Grey Ware at Eran is different from that of the Gangetic Valley and has its distinct fabric, shapes and Paintings. The early chalcolithic phase is marked by the presence of Eran De-Lux ware, Painted Grey Ware, Kāyaṭhā ware and the Black-and-Red ware.

In the second phase of the chalcolithic period I (3), the remarkable changes in ceramics were noticed. A distinct feature of the chalcolithic culture under period I(3) was the construction of a mud-defence wall and a moat. Apart from the pot-sherds, copper coins, various types of semi-precious stone beads, microliths and terracotta human and animal figurines were recovered. The shapes are in change colour along with De-Lux type. Introduction of Channel spouts and increase in the use of Dish-on-Stand were the main ceramics of the Late chalcolithic period at Eran. The geometrical designs and other motifs on these ware represent the flora and fauna of eastern Kālvā portrayed tastefully by the potter-artists. Some of the Red ware sherds show incised decorations. It is interesting to note here that potter of Eran during the chalcolithic phase, were past masters in preparing excellent wheel-made pots in good fabric and designs.

The pottery types indicate that there were contacts
between the people of Kayathā with those of Ahār (near Udaipur in Rajasthan). The Ahār people, after establishing themselves at Kayathā may have migrated to Eran. The interrelations among these people can be ascertained after a thorough comparative study of the various chalcolithic sites in Madhya Pradesh and the contiguous regions of other states.

Re-excaVation At Eran (1996 and 98):

The re-excaVation work at Eran (dist. Sagar) con-
ducted under the direction of Dr. Sudhakar Pandey in 1996 and Dr. V.D. Jha (1998) have brought to light adequate chal-
colithic stratified material in the form of neoliths, micro-
liths of different shapes, terracotta human and animal
figurines, semi-precious stone beads, stone objects and the
painted chalcolithic pottery of various patterns, etc. The
evidence of neolithic settlement encountered in the lower
most level at Eran is one of the outstanding discovery. In
trench No. 5(a-3), handmaiden corad ware, along with a broken
celt have been recovered from a thin eroded layer immediately over the black cotton
soil. The excavators have a opinion that "Neolithic folk
had any contact with the chalcolithic people, is yet to be
confirmed in the further diggings at Eran."

On the basis of the ceramics and other associated
antiquities, the period-I (chalcolithic) at Eran has been
divided into three sub-periods (I-A to I-C) and bracketed
between c. 2150 B.C. to 700 B.C.
An oval pit cut into the natural soil contained in its bottom an incomplete skeletal burial of an animal, presumably of the horse. No grave furniture have been noticed. On the basis of the stratigraphy, it may be placed prior to c. 2150 B.C. 85 Three Neolithic celts have been collected from the surface exploration.

The excavations at Eran 86 conducted in the year 1988, have also yielded numerous chalcolithic material besides four floor levels of the chalcolithic period in trench No. 4. The remains of post-holes hearths, circular pits, skeletal burials, ovens etc. were noticed. A stone hand-axe was also found this year from the surface exploration. 87

**PIPALIYĀ-LORKĀ:**

The village of Pipaliyā is situated 25 Km. southeast of Bhopal on the right bank of the river Kaliāsoṭā (a tributary of Betwā), near the deserted Khārā of Lorkā. It is 5 Km. away from Mandīdeep.

This chalcolithic site was first explored by Prof. Shankar Tiwari 88 and has brought to light the archaeological significance.

This ancient site is a huge mound with circular base and conical top containing cultural deposits of about 15 M. above the flood plain level. Section of the mound provides an evidence of structural remains. Prof. Tiwari has
collected the pot-shards of different varieties. There was possible combination of नाहर, गिलुंड, जार्दार, नंदिल and गुरा.

The pot-shards consists of dishes, vases and bowls apart from vases with stands and dishes-on-stand of different shapes, colour and fabric which are painted on the exterior or in the inner surface. The sherds are of levigated clay, well-baked and with red buff, brick-red, dark tan and cream surface on which are the paintings of different designs with wavy lines, criss-cross patterns, concentric and other forms. On these designs, the matted-design is unique. This design is similar to designs found on Harappan pottery. There are a few sherds on which the designs have been painted with crimson violet. A few sherds-have painted designs together in black and white colours. The black and red ware is closely related to Eran and Vidiani. The Grey ware of chalcolithic type is equally important and can be related with Vidiani Grey ware on one side and early historic grey ware of Gaṅga-tic valley on the other side. Coarse ware with incised designs is of Kāyatha and Navātoli tradition.

The pottery is associated with lithic material of chert and chalcedony in the form of parallel sided blades, fragments of animal bones and polished pieces of hematite.

The systematic excavation work at this site was conducted by the Directorate of Archaeology & Museums, Madhya Pradesh, Bhopal during the years 1978-79 and 1983-84.
OTHER FINDS:—

Besides painted pottery of different patterns, human and animal figurines like mother goddess, bull and bull forms have come into light. Microliths encountered are fluted cores, created ridge blades, crescent, lunate, burins, parallel and single sided blades, borer and scraper of chert, chalcedony, Jasper and agate. It also yielded beads of different shapes, both terracotta and stone. Micro beads of semi-precious stones, earlopes, terracotta and stone disc both perforated or non-perforated. Skin rubbers, sling balls, saddle quern, polished stone cakes padding and padding stones pessals, terracotta animal figuires. The most interesting find of phase I includes a micro bead of gold.

Floor and Structures:— Except a few post-holes, no hutments have been closely observed but almost all the layers contain burnt-mud floors. The average thickness of the floor is 4 to 10 cm. In the earlier phases the houses were planned on single and circular allignment with mud plaster pasted on plants thatees. Later on it was replaced with mud plaster walls covered with plant roots. In the matured stage the mud brick wall or stone structure developed with the roofings.

Interesting Decorations on the Pottery:— The colours used in paintings of the pottery are mostly wite, pinkish, red, blue and black. The decorations on the pottery types included such as liner designs loops both in single and double
rows one over the other way in the later phases triangles, arches, cross, bands, check designs, matted black designs, diamonds with white and black designs, circles with dots, leaves, plant, pendants, Manidapada marks circles, square criss-cross, arrow-points, concentric arches, zig-zag lines, and lines in wavy, horizontal and vertical, with strokes on inside and outside of rims. Thick margined bands of multi-colours. Animal designs such as antelopes, black buck spiral designs. Besides the above many more designs formed, the decoration mostly on the rim, neck and globular body. On all types of wares covering almost in all common vases.

Besides, the painting, the graffiti marks such as geometrical designs, figures of animals, Tāntric symbols, such as svastik, triangles etc. formed the decorations of black and red ware and burnished ware. The painted pottery mainly included types such as decorated, storage and water pots, dish and vase-on-stand, shallow and deep bowls, carinated and undulated inverted funnel shaped jars, coated vessels, with or without head rest, longnecks, conservative rims, short mouthed jārs and globular sided vessels.

BESNAGAR (Vidishā):-

The ancient city of Besnagar had an ideal situation within the triangular confines of the two rivers Betwā and Bēs. A number of paleoliths have been collected from its banks in the vicinity of Vidishā as well. The quartzite
dykes in this region provided sufficient raw material for
the manufacture of tools of stone Age culture.

The excavation work at the site was conducted
by Sri M.D. Khare, during 1963-64 to 1965-66. The two
trenches, BSN - I and BSN -IV yielded chalcolithic material.
Both these mounds are situated on the two banks of the river
Betwa where it is joined by the Bet river. The average
thickness of the chalcolithic deposits, in each of the two
mounds was 200 cms. No structures were encountered in any
of the trenches and even the finds were limited perhaps
because of the very restricted digs, measuring 3 m.x2m. in
BSN-I and 4m.x2m in BSN-IV. The chalcolithic people appear
to have settled right on the black soil, which caps the yellow
natural soil in this region.

In a total deposit of 620 cms. in BSN -I nearly
200 cms. Consisting of two layers, belonged to period -I
(chalcolithic). Quite a few microlithic flakes, some cores
and an animal tooth were picked up from the lower levels.
A few red ware ochreous sherds and some pieces of painted
grey ware were also collected.

The other mound BSN-4, locally known as Navalakhī
mound, on the right bank (eastern) of Betwa was excavated to
a depth of 575 cms., out of which the chalcolithic deposit
was a little more than 200 cms. and consisted of two layers
only. A floor level was clearly demarcated by two horizontally
placed unknown stone slabs. This site yielded the maximum chalcolithic material. Plain red, Black-and-Red ware and all Black wares are the main ceramics of the chalcolithic period. Grey ware is also represented but feebly.

All the wares are made of fine clay and are well fired. Red ware is quite sturdy and naturally durable too. Turned on the fast wheel, it has been burnt to varies hues, ranging from cream, pale brown and brown to Indian red. A few sherds have black-on-red paintings. In some cases a design of hatched triangles; gratifying marks, often slipped on the exterior and part of the interior ware also noticed.

RANGAI EXCAVATIONS:

Shri M.D. Khare and Dr. V.S. Walankar have discovered a single culture chalcolithic site called Rangai mound, very close to and on the right bank of the river Betwa. This site is adjacent to the modern village Rangai, between Sanchi and Vidisha and about 100 metres from the railway bridge. The abundance of painted pottery from this mound close to the village called Rangai shows that the village still remains its old name, after the people, who were well versed in painting pottery. The following sequence has been revealed during the excavations conducted under the direction of Sri M.D. Khare in 1975-76:

Pre-Pottery Microliths: A large number of pre-pottery microliths, mostly of chalcedony, agate quartz, have been
recovered from a deposit resting over the natural soil. As many as 300 artefacts, including the flakes and cores have been collected from the control pit measuring 1m.x1m.

There is a sterile layer over the pre-pottery microlithic yielding deposit.

The sterile layer is overlain by about 200 cms. thick deposit, yielding chalcolithic remains, represented by archaic bulls of terracotta, microliths and cores, paste beads, painted pottery and neolithic burnished red ware. From the uppermost levels of this deposit was also picked up a polished stone axe.92

Floors:— Although no structures have been exposed in this site as well, a large number of post-holes have been discovered.

Pottery:— The pottery of this site consists of three wares, viz. red, black and red and grey, red ware carrying most of paintings in black, displaying horizontal or vertical bands, triangles, cheques, dots, horns of antelopes, bulls etc. The grey ware which forms about 10 percent of the total assemblage and is very often of thick section but fine fabric, is also painted in certain cases. The black-and-red ware, usually of thick section and represented by shallow basin types, some of which have white paintings. Of the neolithic pottery, noteworthy are the matt designs on its exterior and typical burnished vases with splayed out rims, all in
pale brown ware. It is note-worthy that no all black ware has been found from this site.

The entire pottery, except the neolithic vases, which are turned on a slow wheel, has been made of fine clay on a very fast wheel, as revealed from the striation marks, is well and uniformly fired and treated with a very pleasing and luxuriant variety of painted designs on red ware. The plain red ware has a sturdy appearance.

Miscellaneous: The other components of culture are a large number of micro-beads of paste and archaic bulls of terracotta with very long horns, prominent hump, short legs and very dedicately carved tail. Copper is however, conspicuous by its absence. The analogies come from Kāyathā, Nāgdā, Ahār, Eran and Navdātolī.

Conclusion: The foregoing account shows that the chālcolithic people inhabited this area for several years, but long after the disappearance of pre-proto microlith using people. The earliest chālcolithic occupation is contemporaneous with Kāyathā II, which has been dated to 19th-18th century B.C., while the latest, as revealed from the finds of 1963-65, with the painted Grey ware using culture, assinable to the beginning of the 1st millennium B.C. Secondly, the chālcolithic folk settled on the right bank of the river Betwa. Thirdly, the neolithic pottery here has a greater affinity with that of South India and Finally
the use of fine Grey ware, with occasional paintings in brown pigment on one side and the contemporaneity of P.G. ware with the last phase of this culture in another, has added new dimensions to the central India chalcolithic complex.²³

Proto-Historic Settlements in Betwā Valley: (With special reference to Besnagar and Rangai excavations)

During the last two decades several protohistoric (chalcolithic) sites have been excavated. Mention may be made of Eran on the river Bīnā (a tributary of Betwā), Vidishā and Rangai on the river Betwā and Pipalāi-Lorkā on the river Kaliyāsot (also a tributary of Betwā River). Though all these four sites have their own individuality, but the basic traits are the same. The picture that has emerged out of these excavations is interesting and through a welcome light on the Proto-historic complex of Betwā Valley culture.

From Rangai excavations, conducted by Sri M.D. Khare²⁴ it was revealed that the earliest settlers of Vidishā region were the pre-pottery microlithic people. They were hunters and nomades. They used microliths as their weapons. A similar sequence was obtained even in the rock-shelters of this region. The trial diggings at Patalīkarār, Kharwāi, Saneēdirār and Bhimbaithakā, all in Raisen and Shōpāl dist., have shown that before the advent of the chalcolithic people the region was inhabited by the Mesolithic hunters, whose
main source of subsistence was food gathering.

As far as the evidence reveals the first settlers of this land, who used pottery, were the chālcolithic people. The possibility of Neolithic settlements are not altogether ruled out. According to A.D. Shere\textsuperscript{95}, Rangai excavation yielded Neolithic pottery also. It appears that the Neolithic pottery at Rangai was a part of chālcolithic complex similar to those Neolithic celts which were unearthed in the Eran excavations from the chālcolithic levels. The random Neoliths in the form of celts, ringstones were also collected from the chālcolithic levels.—The random explorations at Eran.

The carbon 14 dates at Eran have indicated that in round about C. 2100 B.C. the chālcolithic people occupied the Betwā valley.\textsuperscript{96} This was the time when at Kāyāthā, Navdāholi and Kālibhangān, a similar type of culture was existing. The people who settled in period I–A (C. 2100 – 1700 B.C.) were using the pottery which is fine levigated, sturdy and is made on fast wheel. The pottery has shining red slip and is painted in black colour. The other ceramics associated with this period are Kāyāthā ware (not exactly but similar to Kāyāthā) and grey ware. The black-on-red ware at Eran has been termed as Eran De-Lux ware due to fineness. The painted designs on the pottery of Piplia-Lorka, Period-I are rather more advanced than the Eran pottery in fabric and designs. The people of Betwā valley
had their contacts with the Kāyaṭhā people, as has been indicated by the presence of Kāyaṭhā pottery at site I-A and Pipliā-Lorkā-I. The Kāyaṭhā culture has been proved to pre-Harappan by the excavator. In the opinion of Prof. Bajpai, the Proto-historic 'pre-Harappan' culture complex as known to us from Harappan and several other sites has almost nothing in common with the material of Period-I of Kāyaṭhā. The earliest phase at Kāyaṭhā, should be taken as the basic ingredient of the Mālwa chālcolithic culture. Prof. Bajpai suggested that 'it should better be termed as the 'Mālwa chālcolithic complex'. The regional variation in fabric, types and painted designs known from Kāyaṭhā and other chālcolithic sites, should be studied pertaining to nomenclature- and cultural defusion. It is clearly seen that the first phase at Kāyaṭhā represents the earliest rough Mālwa ware which was succeeded by the later Mālwa Complex.

Gradually a new ceramic variety came into existence which is known as black-and-red ware (site I-B and Rangai-II). This pottery belongs to Ahār or Hanās culture existed in Rajasthan. The black-and-red ware seems to be an import from Ahār, where it occurs in profusion, and it is dated 1300-1200 B.C. It was made on the inverted firing technique. In Kāyaṭhā, the people using this ware arrived, and lived from 1300 B.C. to 1600 B.C. As Āvra and
Manoti were a great distance from Ahār, it is found at the lowest level and in plenty. At Navdatoli this was comprising mostly bowls and cups, was confirmed only to period I. It has been also traced at Nagda and Erān. At Kāyaṭnā, there is a gap between Kāyaṭnā and Sanās culture, but in Betwā valley culture there seems to be no such demarcation. In this area the pottery of Erān, Kāyaṭnā and Sanās cultures have been found mixed together. This have been to be the peaceful co-existence of all these groups. The cultural contact between these groups took place near about C. 1900 B.C. This was the time when first settlement took place at Rangai near Vidishā, where it forms period-II. The pottery of Rangai has a close similarity with the Black- and-Red pottery of Erān.

The harmony of this land was disturbed near about 1700 B.C. by the Mālwā people. It appears that they spread over the Betwā and Dasārṇa region. The evidence of Erān, Piplyā-Lorkā, Rangai and Vidishā (Besnagar) is sufficient to prove the colonization of Mālwā chālicolithic culture in Betwā region.

The Mālwā chālicolithic culture continued for about 1000 years (upto 700 B.C.), when it was superseded by M.B.P. and other pottery cultures of historical period. At Rangai and Vidishā, this culture came into contact with the painted Grey ware culture in its upper levels, assignable to the beginning of the 1st millennium B.C.
To sum-up it can be said that the Betwā valley culture played a dominant role in the development of the chālcolithic culture in the central part of the country. We do not find any inter-relationship between the pre-pottery microlithic people. The chālcolithic cultures started here with certain pre-Harappan traits. There appears to some affinity with θ.C.P. people in a clear-cut relationship with the Kāyaṭhā people. This area also developed its contact with θhār people and tried to amalgate the chālcolithic cultures of different regions. In the middle phase the area was annexed by the Kāla culture which spread all over the region. After the introduction of iron in about C. 800-700 B.C. the new traits started in the cultural complex of this region.

In order to say something definite about it, there must be more triangible dātā, like pottery, particularly abundant sket-al material and other reliable source-material will adequately be prove the cultural contacts. From the existing material, it seems that this culture is not the result of one particular cause, but its different traits originated in different ways. It seems the people were indigenous. They adopted new ideas from Irān, and particularly their pottery in its forms and fabric was influenced by that of Irān. The Harappan culture and the other contemporary chālcolithic cultures also considerably contributed
to the origin and gradual development of this culture. 107

Authors of the Chalcolithic Culture: Dr. Wakanker 108 has mentioned a possible clue that the earliest people who brought agricultural settlements were Māṅdhātra Haihayas. They defeated the jungle tribes and established their settlements on Mālwā plateau and in the Narmada valley. They came in conflict, while expanding their sovereign rule over the part of Gujrat, with the Bhārgavas. The Bhārgavas vanquished not only the invasions of the Haihayas, but uprooted them from Mālwā under the leadership of Pāḍurāma. They feed eastward and established themselves in chhodi country beyond the Betwā. They returned after the mutual understanding and the Bhārgavas went southward. The Haihayas returned to Mālwā and from there they entered Mahārāṣṭra. By the mid of the 1st millennium B.C. the Pradyotisas came to Mālwā and thus chalcolithic Mālwā was transferred to iron using culture.

Prof. Bajpai, 109 suggested that "the pottery types indicate that there were contacts between the people of Kāyatha with those of Māhr people, after establishing themselves at Kāyatha may have migrated to Bhrā. The inter-relations among these people can be ascertained after a thorough comparative study of the material culture known from the various chalcolithic sites, in Madhya Pradesh and the contiguous regions of other states."

Sri M.D. Khare 110 concluded that "the foregoing
account shows that the châlcolithic people inhabited the area of Vidishâ-Rangai for several years, but long after the disappearance of the pre-pottery microlith using people."

Sri Trivedi has come to a conclusion that "C. 1200 B.C. is the probable date of reaching châlcolithic culture in Jabalpur region."\(^{111}\)

Prof. Tiwari's\(^{112}\) postulation is that "these châlcolithic people were the authors of the earlier paintings found in the rock-shelters surveyed by him in Raisen and Shopal area, and not the early Middle or Late stone Age man as is pre-supposed by some scholars. He is further inclined to believe that wherever in the Vindhyâna region rock-shelters are located, châlcolithic sites often succeeded by early historic remains are likely to be encountered within a reasonable distance."

Dr. Pandey\(^{113}\) concluded that "the châlcolithic culture at Eran is undoubtedly superior to that of other sites in Madhya Pradesh. The site is contemporary to Kayâthâ and earlier than Navuâtoli."

The pre-excavation work at Eran (dist. Sâgar) during the year 1986 has yielded more antiquities of archaeological interest. On the basis of the ceramics and other associated finds, the period I (châlcolithic) at Eran has been divided into three sub-periods ranging from C. 2130 B.C. to 700 B.C.\(^{114}\)
Besides the recent archaeological excavation work conducted at Ázādnagar,115 (Indore), Daṅgwāda,116 Runija,117 Atūdhās,118 Pagārá,119 Piplyā-Borkā,120 and other sites, Gilaulīkherā121 (dist. Morena) & Kakrahta122 (Jabalpur dist.), the excavation work at these two sites were conducted under the direction of Prof. R.K. Sharma. These two sites have yielded few painted sherds of Black-and-Red ware and Grey ware found at Kakrahta in the surface exploration made by Sri C.R. Trivedi.123

Prof. B.B. Lal, R.M. Loa124 R.A. Sharma125 have also brought to light the significant archaeological remains of the early historic period from Jadera and Goroān (both in Swālīr region).

End of the Chālcolithic Cultures:— The question then arises of how these chālcolithic cultures came to an end. Nothing definite can be said on this because of lack of sufficient evidence. It is held by some scholars that the iron-using people, who entered with their weapons and implements, might have been responsible for the destruction of these chālcolithic cultures in about 300 or 700 B.C. At several sites iron was found along with the painted Grey ware.126 This painted Grey ware has been ascribed by B.B. Lal127 and others, to the Āryans. This shows that the Āryans in their expansion towards the south from the Gaṅgetic Doāb, brought about the destruction of these cultures.
Prof. K.C. Jain concluded that no one destroyed these chalcolithic cultures. But in the 6th century B.C. it gradually disappeared when iron-minted money, houses of bricks and towns came into existence. All these factors led to the foundation of new economy. "It thus seems that the disappearance of the chalcolithic cultures was natural." 128
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