Archaeology of Early Iron Age in India with Special Reference to Vidarbha Region

Early Iron Age cultural remains besides settlements are prominently represented by burial remains. Archaeological vestiges of this period scattered in India can be divided into two broad groups. Group I includes the ancient remains buried underground while group II incorporates the remains of monuments visible above earth which mainly constitutes burials of early Iron Age/megalithic period. These megalithic monuments are dispersed in various landscapes and can be easily identified above the surface. During the colonial period many officials, priests, armature researches who a liking about Indian culture attempted to investigate various parts of India for search of remains. The investigation of megalithic monuments in India started nearly a hundred and ninety years ago by Babington in Malabar Coast in Kerala (Babington 1823: 324-330). Since then, megalithic monuments were reported from Jammu Kashmir, Kumaun, Uttar Pradesh, Bengal, Madhya Pradesh, Chhattisgarh and Peninsular India (Brubaker 2001: 253-283). Col. Meadows Taylor explored and excavated a few stone circles where, he compared these megaliths with those of Scythians (1841; 1851: 179-193). Consequent inquiries into these megalithic monuments were carried out by Fergusson (1871), Wallhouse (1874: 17-34), Rea (1903: 11-14), Hunt (1924: 156), Slater (1924: 66) and Ghurye (1926: 26-57) and many amateur archeologist (for detail see Leshnik 1974; Mohanty and Selvakumar 2002: 315-351). The main objective of aforesaid early attempts was to know the author and to establish contact and disposal element of the builders of these megaliths. The excavations at Bramhagiri by Wheeler (1944: 181-308) proved to be one of the first systematic excavations in India pertaining to this period. The excavations provided for the first time a relative chronological framework of the Indian megaliths.

The emergence of Iron Age in India a remains a subject of debate in terms of date and traits of appearance of iron across the country. It has assumed different regional characteristic features and date of occurrence. It was observed that megalithic burials don’t get represented as an important feature of early Iron Age throughout the subcontinent. For example, the early Iron Age culture of northern India is not totally

Cairn circle with or without chamber and stone circle are main megalithic types observed in Vindhyananchal and Ganga-Karmanasa river valley. Excavations carried out in Kakoria and Kotia megaliths revealed single culture remains of early Iron Age in form of megaliths. (Sharma 1985: 477-480; Singh 1985: 473-476; Mishra 1989: 191-193). These megaliths belong to pre Iron Age and Iron Age and dated respectively 1500 B.C. to 1000 BC., and 800 BC. to 3rd century BC. (Singh 1985: 475,480). Early Iron Age in Ganga valley is also associated with PGW culture.
(Tripathi 2001). The Painted grey ware culture is denoted by settlements having a hierarchy of large and small sites, structures both circular and rectangular, beads of semi-precious stones, glass, as well as remains of rice (Lal 1984, 1988; Erdoesy 1985: 66-79; Tripathi 2001). In Painted grey ware phase at Atranjikheda, many iron implements and tools were recovered, showing high advancement in iron technology (Gaur 1983). The excavations at Bhagwanpura (Joshi 1976: 178-80) yielded an overlap between Late Harrapan and Painted grey ware suggesting beginning of early Iron Age in this region to be around 1300 BCE.

Interestingly, Black and red culture of northern India, characterized as rural in nature is also associated with early iron in middle Ganga plains (Lal 1993; Lal and Dixit 1997: 303-307). Recent investigations at sites like Lahurdeva, Raja Nal Ka Tila, Dadupaur and Malhar have brought to light early beginning and usage of iron going back to around first half of second millennium BC. (Tewari 2003:536-544). These evidence highlight not only a well-developed iron technology in the black and red ware phase, but also suggests the use of iron for agricultural and domestic purposes as well. It is also noteworthy to mention here that similar black and red ware is also found from the megaliths excavated in Adwa valley (Mishra and Mishra 2002: 133-143).

The southern Indian megalithic tradition has a distinct regional cultural trait both in terms of burial type and associated ceramic industry. In the south Indian megalithic tradition, black and red ware along with russet coated ware constitutes the main ceramic type. It is important to note here that Deccan megalithic traditions too have black and red ware as component ware; nevertheless their predominant and characteristic ceramic is micaceous red ware. Same is the case with burial type. The principal burial type of south India are cist and dolmens whereas stone circles and cairn circles are the main megalithic type in Vidarbha. The megalithic tradition of Kerala is also notable for varied megalithic architecture despite the similarities in pottery with Tamilnadu and Karnataka.

Study pertaining to early Iron Age/megalithic period carried out in India deals with plethora of issues related to this period like distribution and typology (Krishnaswamy 1949; Sundara 1979; Leshnik 1972; V.D. Misra et al. 1977; A.K.

**Early Iron Age Investigations in Vidarbha**

An investigation of megalithic culture of the Vidarbha started in the early decades of nineteenth century mainly by British officials and priests. However, these early efforts were curiosity driven as these aimed only at the collection of the antiquarian remains from the graves. Different terms such as “barrow”, “mounds” etc. were used for these megalithic burials by the early explorers. First reporting of megalithic graves from Vidarbha was by Reverend Hislop who was a Scottish missionary and a geologist (Wilkinson 1982: 15-18). He excavated “good many” megaliths near Takalghat Khapa, in Nagpur district (Pearse1867: 207-217). Though, the details of his excavations were not published but reference to his works were cited by later day explorers and excavators such as Pearse (1867: 207-217) and Carnac (1879: 1-16) in their papers. Work started by Hislop was carried forward by Rivet Carnac who was then in Bengal civil services. He excavated a few stone circles at Junapani in the periphery of the Nagpur city. He carried out systematic explorations at the site and prepared a detailed distribution map of the
megalithic burials at Junapani (Carnac 1867: 1-16). Excavations at Junapani yielded spearheads, knives, daggers, axes and arrowheads of iron. Five months after the Rivett Carnac’s excavations at Jhunapani, Colonel Godfrey Pearse carried out excavations at Wurregaon, near Kamptee cantonment area in 1867. Pearse was well familiar with the ancient remains of Stonehenge in his own country. The stone circle he excavated lay a quarter mile east of Wurregaon village and measured 75 yards in circumference. He mentions 35000 cubic meter deposit of earth of the burial. Before he started the excavations, he asked a few questions to the local villagers regarding the author and antiquity of the stone circles but he was not satisfied by their answers. He carried on excavations from 4th July 1867 to 13th July 1867. In course of excavations, he found double skeleton remains of human along with iron ploughshare, spatula, and sickle. Scanty remains of gold and copper were also mentioned by him as finds. Most noteworthy feature of his excavations was the conclusive remark made by him; he observed that the builders of this burial were not civilized. According to him, they were tall and strong people, they also made best of steel and could smelt copper; they burnt oil and they were horse riders (Pearse 1869: 207-217). After Pearse, J.J. Carrey excavated a few stone circles at Khairwada in Wardha district (Carrey 1871: 238-239). He describes “mound” of each stone circle and observed that there were nearly 150 such barrows in and around the site. He mentions in his published work in Asiatic Society of Bengal that the stone circles were hollow at the top but he believed they had a chamber inside them. In course of excavations, he recovered pieces of pottery, two copper bells, two ear rings and an iron axe (Carrey 1871: 238-239).

Other than excavations a few reporting of megaliths in the region also found mention in the exploration reports. Hunter carried out explorations near Mahurjhari and reported the presence of megalithic burial at Mahurjhari (Hunter 1933: 30-35). During his archaeological tour in Central Provinces in 1873, Alexander Cunningham recorded a dolmen type of burial near Keljhar, in Chandrapur (Cunningham 1966: 140-141). Henry Cousens who carried out a detail survey of Central Provinces and Berar, while describing the other monuments, mentions villages having megaliths such as Tilotakhairi, Pipalgaon (Cousens 1971: 3-31). After the independence, new researches were done by the Indian archaeologists in the field of megalithic studies. The first megalithic burial excavation

First decade of twenty-first century witnessed problem oriented scientific work in the field of megalithic studies. Attention was given to the micro level studies of the burial and habitation sites of megalithic community. Ethno-archaeological studies focusing upon new perceptions in the beliefs and burial customs behind the erection of megalithic monuments were encouraged. However, lack of detailed excavation reports with insufficient description of the excavation results posed a challenge and thus restricted the study of concerned period. Brief review of excavated site in the Wainganga valley on the basis of available information is presented below.

**Burial sites**

**Borgaon** (21° 20' N; 78° 58' E)

The department of Archaeology and Museums, Government of Maharashtra and the Deccan College Post Graduate and Research Institute, Pune carried out excavations of megalithic stone circles at Borgaon during 1980-81 (IAR 1980-81: 40). Out of forty eight documented circles, five megalithic burials were chosen for excavations. Very little
Evidence of human skeleton remains was found from these burials. Antiquities found during excavations primarily consisted of iron sickles, chisels, adzes, arrowheads, tridents, horse bits, nail parers and axes. Besides bangles, copper antiquities included a dish with lid having a knob of peacock motif. Semi-precious stone beads of agate, carnelian (both etched and non-etched variety) were also found from the excavations of burial. Pottery was mainly black and red ware, black burnished ware and typical micaceous red ware. Most significant find of the excavations was that of a stone trough. This rectangular stone trough was found inside the burial. This was the only evidence of stone trough reported from Vidarbha megalithic complex.

**Davlameti** (21° 9.55’ N; 78° 51’ E)

The excavations at megalithic burial site of Davlameti are rather a recent one, carried out by Nagpur University during 2004-05. The site is located on the outskirts of the Nagpur city, to the south of national highway no. 6 on a land under Ministry of Defense. In total fourteen megaliths were documented here. They were situated on the bank of a small non-perennial nulla. One stone circle type of burial was taken up for excavations. The burial revealed fragmentary remains of bones and metal objects of iron and copper. Copper horse ornaments constituted important antiquities recovered from the burial (Ismail 2011).

**DhamanaLinga** (21° 8.30’ N; 78° 51’E)

This megalithic burial site falls under the industrial zone of Nagpur district. It is situated in Hingana taluka of Nagpur district and is located on the south-east and south-west bank of Wenna reservoir between Peth and Linga. It was excavated by Nagpur University in two sessions during 2000 and 2001 (IAR 2000-01: 97-107). Megaliths here belong to stone and cairn circle type.

Out of 50 megaliths documented here, twelve megalithic burials were taken up for excavations. The most significant discovery of the excavations was the discovery of an ill fired terracotta sarcophagus. It was found towards the south-east of megalith no19. The dull red sarcophagus was oval or boat shaped. It measured 45 cm x 15 cm x 12 cm and contained fragmentary remains of child burial. Megalith no. 1, 8, 10 and 17 of
Dhamnalinga possessed evidence of peripheral burial. Furthermore, megalith no 14 alone yielded fourteen peripheral burials. Eight of them were found in north-west quadrant, three were reported from north-east quadrant while one each was found in south-west and north-west quadrant. Dhamnalinga is an important site of Vidarbha as most of the burials here had human skeleton remains, though fragmentary in nature. Antiquities found in the burial were lamp stand, axes with cross ring fasteners, nail parers, double edge axes, chisels etc. Ceramic industry was typically megalithic, similar to those found from other sites in Vidarbha.

**Gangapur (20° 55' N; 78° 56' E)**

The megalithic burial site Gangapur was further extension of well-known site Takalghat-Khapa. The site was located about 1.5 km towards west of Khapa (Deo1970a). Three megalithic circles at Gangapur were excavated by Nagpur University with an aim to find out their similarities and differences with megaliths at Khapa. Stone circle having a diameter of 11 meters was chosen for scientific investigations. Excavations revealed ceramics of coarse variety of micaceous red ware which was very similar with that recovered at Khapa. Iron objects found were axes with ring fasteners, dagger, swords, nail parers. Evidence of copper was suggested from the bowls, shallow lamps, bangles and series of interlocked thin rings. Semi-precious beads of agate, jasper and carnelian (both etched and non-etched variety) were also found at Gangapur (Deo 1970). Chronologically, the site can be taken as contemporary with Khapa.

**Junapani (21° 12' N; 79° 52E)**

Junapani is located about 11 km north-west from Nagpur on Nagpur-Katol state highway. The site marks its importance as one of the earliest explored and excavated site in Vidarbha (IAR 1961-62:32-34). In 1867, Rivett Carnac visited Junapani and carried out detail explorations at the site. He himself prepared a rough survey map of the “barrow” (stone circle) and excavated few megaliths of the Junapani (Carnac 1879: 1-16). After independence, the site was again investigated by Archeological Survey of India under the direction of B. K. Thapa (IAR- 1961-62: 32-34). Over hundred and fifty burials scattered in an area of almost six square km were documented. These were mostly stone circles with cairn filling cairn circles. These circles were made of undressed trap
boulders and their diameter ranged from 7 to 18 meters. Many of the burials had cup marks. Only three megalithic burials were taken for excavations. Amongst them, megalithic 1 and 2 gave evidence of skeleton remains inside them. Burial furniture included etched carnelian beads, stone pounders and iron, copper and gold objects. Ceramics were mainly red ware and black and red ware. Important finding was occurrence of painted pottery. The antiquities obtained from the burials indicate the richness of the material culture of the megalithic people of Junapani.

**Khairwada** (21° 1’N; 78° 29’ E)

Khairwada is amongst the few sites of megalithic Vidarbha which was excavated in nineteenth century. The site Khairwada is located in Wardha district, on both the banks of river Dham. It is nearly 118 km from Nagpur and 25 km east from Arvi. J.J. Carrey, a British executive engineer, excavated the burials of Khairwada in 1869 (Carrey 1871: 238-239). He also published a brief report of his excavations at Khairwada in the proceedings of Asiatic Society of Bengal. Carrey reported the evidence of horse teeth and metal objects from the excavated burial. However, he did not write anything about the habitation deposit which lies on the other side of the river.

The site was reinvestigated by Deccan College, Pune and State department of Archaeology, Govt. of Maharashtra, during 1980-81 (IAR 1981-82: 51-52). The megalithic site of Khairwada is considered to have the highest number of burials in Vidarbha. It has yielded about 1400 megalithic burials. Two varieties of megalithic circles were observed here. The first one was stone circle with pebble and clay filling within a circle of boulders and second type was stone circle with loose pebble piled up without use of clay within a circle of boulders (IAR 1981-82: 51-52). Ceramics collected from excavated megaliths were comparable to those found from other excavated habitation sites of Vidarbha. Human skeletal remains were fragmentary in nature and consisted of few long bones and human teeth. Antiquities found from the burial incorporated hoes, blades along with axes with cross ring fasteners. Birds finials of copper lids were also found from the burial.

A small trial trench was laid on habitation mound. It gave the evidence of a threefold cultural sequence. Lowermost level gave evidence of Megalithic period which
was succeeded by early historic period. The next and final phase of occupation was medieval period. Remains from megalithic period consisted of house floors with lime plaster, circular post-holes and saddle and legged querns which throws light on the settlement of the megalithic society of Khairwada. Ceramics similar to those encountered in the burials at the same site and other megalithic sites in Vidarbha were recovered. These ceramics were categorized into four types- Black-and-red, micaceous red, burnished black and black-on-red ware. The common pottery shapes were variety of bowls prominently rimless bowls, lids with knobbed or bud-like hold, pots with globular body and funnel mouth besides basins. Painted black-on-red ware occurred in the late phase of Megalithic habitation. Antiquarian remains mainly included copper bangles, iron axes with cross-ring fasteners.

**Nagalwadi (21° 07′15″N; 78° 57′45″E)**

The megalithic burial site Nagalwadi is located 16 km west from Nagpur in Hingana taluka of Nagpur district. Here, nine megaliths were located on the bank of rainy nulla near the present village. Two megalithic burials were taken up for excavations during 2002-2003 by State department of Archaeology, Government of Maharashtra (Bhoyar 2003-2004: 155-184). Megalith no 1 which was a stone circle with cairn filling, measured 17.70 meters. It was constructed over the natural soil. The lowermost level of the burial was identified as a proper layer of sticky black cotton soil. Medium size stones were used for filling the burial. Small stones were used for making the burial heap at uppermost level. Skeleton remains found inside the burial were in very fragile condition and could not be identified. Ceramics recovered from this burial were micaceous red ware and black and red ware. Common pottery shapes identified were bowls, basins and pots. Copper and iron objects were also found.

Megalithic no. 2 measured 14.85 meters north-south and 15.00 meters east-west. Burial construction pattern was similar to that of megalith no 1 with three phases of deposition. No special inner architecture was reported during the excavations. Fragmentary skeleton remains were found. Pottery included coarse red ware and micaceous red ware. Typical megalithic axes with cross ring fasteners, adzes, chisels were found from the burial.
Raipur (21° 43′ N; 78° 58′)

The megalithic burial site at Raipur lie 15 km south-west of Nagpur city, on the left side of Nagpur-Hingna road. The site is located on a barren land on the left bank of river Wenna, a tributary of Wardha. Total 262 stone circles were documented here. The immense importance of megaliths at Raipur was first identified by Prof. S.B. Deo who excavated the site in 1984 (IAR 1984-85: 48-50). The site was again subjected to excavations in-between 1987-1990 by Deccan College (Deglurkar and Lad 1992). Total eight megalithic stone circles were excavated at Raipur. A significant feature found in megaliths of Raipur was that the stone circles were concentrated on the either side of a huge extensive dyke. This was probably purposely done in order to draw boulders from the dyke for construction of burials. Most important evidence regarding the process of arranging a stone circle was found at Raipur. Five stone circles in process of burial construction without any deposit were noticed. These boulders were placed on virgin rock surface and there were absolutely no filling marks or any trace of pebble filling. It was, therefore, obvious that these stone circles were kept ready but were not used (IAR 1984-85: 48-50). Excavations of megalithic burial revealed different types of inner architecture for the first time in megalithic complex of Vidarbha. The megalithic 1 incorporated a cist made up of schist slab in center of the circle. Megalith 2 consisted of a chamber in center of the circle made up of 7 huge basalt stones. These basalt boulders were erected vertically and a packing of small stones with flat base was found at the base of the chamber. The biggest megalith i.e. megalith no. 7 also yielded a central chamber made up of 9 huge boulders. All these cists and chambers were filled by loose brownish soil.

Ceramic assemblage comprised of the black-and-red ware, black burnished ware, micaceous red ware, coarse red ware and interestingly painted black on red ware. Micaceous red ware was prominently found in typical funnel shape and globular body. Few sherds bearing painted designs were also obtained during the excavations. Variety of iron objects like nail-parers, lamps, adzes, arrowheads; horse gears, horse bits, knives, adzes, axes with cross ring fasteners etc. were found from the excavated megaliths. The copper antiquities were represented by bangles, necklaces of interlocked tiny and thin
rings etc. A lid with the finial of bird motif similar to that at Mahurjhari and Takalghat were also found.

The Habitation and Burial Sites

This category includes those sites where both habitation and burial of early Iron Age are documented.

Bhagimohari (21° 24' N; 78° 51' E)

The Department of Archaeology, Deccan College and Dept. of Archaeology and Museum, Govt. of Maharashtra jointly carried out excavations at Bhagimohari, a burial and habitation site during two seasons in 1982-83 and 1983-84 respectively (IAR 1982-83: 61-62; 1983-84: 57-58). The ancient cultural vestiges at Bhagimohari are located on the banks of Kolar river nearly 45 km. north of the Nagpur. Excavations of the burial site revealed new type of inner architecture inside the burial. The first circle gave the evidence of a chamber inside the circle which was made from medium size uneven boulders resting over black cotton soil. This chamber was divided in two by a common middle wall in between. However, no skeleton remains were found inside the chamber. Another evidence of inner architecture was found in form of a circular arrangement of small stones in center of the burial. An irregular but approximately circular alignment of medium size stones was other architectural variation noticed at the site. Availability of Gondwana stone slab in some of the stone circle was another rare occurrence observed in the Megalithic burials at Bhagimohari. Iron antiquities found inside the burial included typical megalithic axe with cross ring fasteners, arrowheads, daggers, knives etc. Copper objects included bangles and fragments of decorative lids. It is significant to note that almost similar variety of iron objects like axes with cross-ring fasteners, knives, daggers, arrowheads, and bangles, along with objects of copper such as bangles and fragments of decorative lid finials were also reported quite similar with that of Takalghat and Mahurjhari. Ceramics found from the megalithic burial were black and red ware, micaceous red ware, black burnished ware and painted black on red ware. Beads of semi-precious stones like agate and jasper were associated findings.
About two meter thick habitation deposit of early Iron Age was noticed at Bhagimohari. Excavations suggested that lower stratum belonged to early phase of megalithic period. The megalithic people of Bhagimohari lived in wattle and daub houses with clay plastered flooring. According to the excavator, successive habitation floors were prepared by ramming black clay and fine sand over pebbles bed and surface was usually plastered with lime. Few post holes were also documented along with horse shoe shape hearths three. Circular bins of clay and lot of grains and animal bones on the house floor were also documented (IAR 1983-84: 57-58). The evidence of a few houses burned due to fire was also encountered during excavations. The remains of burnt houses were identified in form of impression of completely burnt and fallen remains of the wall on the floor. Painted black on red ware with thin fabric and burnished red ware were also documented along with black and red ware, micaceous red ware.

**Bhawar (20° 52’ N; 79° 44’ E)**

Excavations at Bhawar were carried out by Nagpur excavations branch, Archaeological Survey of India, under the direction of Amrendra Nath during 1991-92 (IAR 1992-93: 55-62). The site is located in Pauni taluka of Bhandara district and the ancient habitation mound lies on a meander of Somnala. The site yielded megalithic burials along with settlement remains. Megalithic circle no. 27 located on mound V was taken up for excavations to know the details of burial process. No skeleton remains were found in the excavated burial however; spear head, dagger, blade, nail parers and adzes of iron were found at different places within the burial.

The habitation mound is highly disturbed as a major portion of the site is under occupation by the present villagers. Moreover, a portion of the site is also disturbed by a brick manufacturing activity. Excavations at Bhawar revealed four different periods of occupation. No evidence of iron was found from period I and therefore it was called an iron-free horizon. Period II witnessed no major change in the ceramic industry however it gave the evidence of iron. Painted designs on black and red ware were dominated by horizontal bands, lattice diamonds, oblique lines, series of dotted oblique lines, brush designs etc. Iron antiquities consisted of knives and points. Ceramic assemblage of Period III was characterized by micaceous red ware, black and red ware, red ware with slip and
perforated red ware. Settlement remains were found in excavations in the form of successive floor levels. Hearth along with scattered animal bones and grains were also found on the habitation floor.

**Pachkhedi (20° 55' N; 79° 30' E)**

This site is located about 60 km south east of Nagpur district in Kuhi taluka. The site is noteworthy due to the presence of Menhirs of megalithic period along with habitation mound. The excavations at the site were carried out by Nagpur excavations branch, Archaeological Survey of India, under the direction of Amrendra Nath (1992-93:64-73; Nath 2002: 81-88). In total five menhirs were excavated. This was the first site of the Vidarbha where excavations of menhir was carried out. Menhirs of Pachkhedi were made up of undressed rock erected in pits of various shapes and sizes dug into the natural soil. Packing of stones around menhir was also witnessed. Unlike Maski, no cultural material was reported from the excavations of menhirs at Pachkhedi. A circle having diameter of 16 meter was also taken for excavations and it yielded a copper bowl and an iron axe with ring fastener.

Excavations at habitation deposit at Pachkhedi revealed fourfold cultural sequence. Period I was assigned to the period of microlithic assemblage. Period II denoted the cultural traits of megalithic in form of black and red ware, red ware with and without painting, black slipped ware. Painted designs mostly consisted of vertical lines, lattice diamonds, and comb patterns. Settlement evidence was documented in form of occurrence of mud floors, “U” shape kiln.

**Mahurjhari (21° 14' N; 79° 30' E)**

Mahurjhari is one of the sites which were explored during the nineteenth century. The site was reported by Hunter in 1833 during his survey of the region (Hunter 1933: 30-35). Though, Hunter’s main aim was to find out early historic remains yet he gave a short description of stone circle at Mahurjhari village. After hunter, a series of systematic surveys carried out by Archaeological survey of India under N.R. Banerjee brought to light over 300 megalithic circles mostly stone circle type of burials at Mahurjhari. An important feature of the megaliths of Mahurjhari was the filling and use of huge
peripheral boulders in the circles. Benerjee observes that the average height of the cairn filling was over 3 fit from ground level (IAR 1958-59: 21). During 1970-71 the site was subjected to excavation by Nagpur University (IAR 1970-71: 24-25; 1971-72: 33-35; Deo 1973a). However, the excavations carried out at the site were limited to the burials only due to non-finding of habitation remains related to megalithic period. Hitherto, large numbers of megalith burials are excavated at Mahurjhari. Not only this, Mahurjhari has the largest number of Megalith burials excavated at any site in the Megalithic culture of Vidarbha. Evidence of double burial of male and female buried together was found for the first time in Vidarbha megalithic complex from Mahurjhari. Besides this, a rare evidence of a full human skeleton burial (except lower portion of legs below thigh) was found from Mahurjhari. Another noteworthy feature of burials at Mahurjhari was the incorporation of a lot of burial goods and ware exceptionally rich. The richness of burial appendages found in the circle has also thrown light on socio economic perspectives of the society. Large numbers of beads were found from the burials. Such a large quantity of beads from burials probably suggests their local origin as Mahurjhari was a bead manufacturing center (Hunter 1933: 30-35; Deo 1973a; Mohanty 2003, 2008; Thakuria 2010). Numerous iron objects were also found in the burial ranging from weapons to carpentry tools, from agricultural items to items of everyday use. These included arrowheads, spearheads, axes with double ring fasteners, chisels, daggers, horse bits etc. Horse ornaments made out of a thin sheet of copper were noteworthy. Seldom items of gold were also recovered from excavations including thin gold wires and thin gold sheets. Ceramic industry of burials at Maurjhari was characterized by black and red ware, micaceous red ware, red ware etc. The shapes and types of the pottery were similar to those documented at other excavated sites of the region (Deo 1973). Skeleton remains were also found in a good number from burials at Mahurjhari. Recent excavations yielded significant finding of peripheral burials outside the stone circles at Mahurjhari (Mohanty 2005).

The credit of discovering the megalithic habitation mound at Mahurjhari goes to Dr. Mohanty. The habitation remains which eluded the previous investigators, contrary to the rich antiquity remains from the burials were first brought to light by him only. His participation in the excavations carried out by Deo in 70s and 80s besides his interest in
the concept of the non-habitation sites made Mohanty to undertake an intensive explorations and excavations at the early historic mound at Mahurjhari along with the burials. It was aimed at locating habitation of early Iron Age people close to the burial sites and to see that they were sedentary having a multi economic system to support. He discovered the habitation mound on the southern side of Mahurjhari village on the bank of a rainy nulla. Excavations brought to light successive floor levels and typical megalithic pottery (Mohanty 2002:45-47; 2003a: 41-48; 2004: 50-52; 2005a: 76-77). This changed the notion that megalithic people were non - settled and mobile. The excavations have revealed floors generally made out of compact brownish clay with lime plaster over it. Remains of a U shaped hearth along with storage pits were also documented. Habitation at Mahurjhari also gave evidence of zoological and palaeo-botanical remains. Similar to that has been recorded from Naikund and Bhagimohari (Kajale 1982; 1989; Thomas 1992a; 1992b)

**Vyahad (21° 7’ 30" N; 78° 53’ E)**

Vyahad is one of the megalithic burial and habitation site recently excavated by Nagpur University under the directions of Ismail Kellellu during 2005-06. The site is situated 24 km east of Nagpur and 2 km south from Nagpur-Bombay national highway no. 6. The megalith habitation site is located on the right bank of river Vena whereas the burial site is located on the opposite side of the habitation on the left bank of river Vena (Ismail 2006). Megalithic burials at Vyahad were divided into two categories- stone circles and cairn circles. Peripheral boulders of the circles were not big in size as compared to other megalithic sites of the region. One burial was taken up for excavations which yielded new type of inner architectural variation in the center of the circle. This double stone circle incorporated another oval central chamber. Fragmentary skeleton remains of human and horse bones were found inside the burial. Besides other typical megalithic wares coarse variety of micaceous red ware was main ceramic recovered from burial. Metal objects bear a resemblance with the findings at other excavated sites of the region.

The habitation mound is highly disturbed by occupation of the present village on the ancient mound. Ceramic assemblage consisted of typical megalithic pottery in form
of black and red ware, micaceous red ware, red ware with \ without paintings etc. The ceramics of Vyahad were similar to those recovered from other excavated megalithic sites of Nagpur district. Structural remains of the site were found in form of successive floor levels and hearths.

**Naikund** (21° 20' N; 79° 10' E)

The habitation-cum-burial site Naikund is located 42 km north east from Nagpur in Ramtek taluka of Nagpur District. It is situated on the bank of river Pench. This site was jointly excavated by Deccan College and Dept. of Archaeology and Museum, Govt. of Maharashtra under the guidance of Deo and Jamkhedkar during two seasons 1977-78 and 1979-80 (IAR 1978-79: 39; 1979-80:50; Deo and Jamkhedkar 1982). More than seventy stone circles of megalithic period were documented here. Only six stones circles were taken up for excavations in both seasons. Their pattern was similar with those of excavated burials of the region. Fragments of human and animal skeleton remains were found inside the burial. Ceramics included typical black and red ware, black burnished ware, micaceous red ware and painted black on red ware. Antiquity remains included a large number of iron objects followed by copper objects. A few gold objects were also noticed.

The habitation mound at Naikund spreads in a five hectares area with a deposit of 2.4 meters. Excavations at habitation mound brought to light two sub- phases designated as IA and IB of megalithic period. Structural remains found in excavations revealed a complete plan of a circular hut along with post holes and a circular hearth. The successive floor levels were prepared by rammed clay. Traces of lime plaster were also identified over the surface of floor. A significant discovery of the excavations of habitation was finding of an iron smelting workshop of Megalithic period. On the basis of scientific examination of the furnace and associated items, it has been calculated that the smelters of Naikund used about 10 to 12 kg of iron ore for a single operation producing 3 kg to about 4.2 kg pure iron (Gogte 1982a; 1982b; Gogte *et al* 1984). Raw material which was used for extracting iron was locally available in the vicinity of the site. Furthermore, it also suggests that the Naikund was one of iron smelting center amongst the megalithic community of Vidarbha.
Takalghat–Khapa (20° 54’ N; 78° 54’ E)

The site Takalght and Khapa are located twenty miles west of Nagpur city. Takalght is the habitation site whereas Khapa incorporates burial cemetery of Takalght’s megalithic people. The Habitation and burial sites are located on the banks of river Krishna. The site was first reported by Hislop prior to 1864 (Pearse 1869: 207-17). The site was again explored in 1968 and was excavated by S.B. Deo (Deo 1970). Excavations of habitation mound revealed single period occupation of early Iron Age which was further divided into three sub phases IA, IB and IC. Flimsy deposit of phase IA was encountered in lowest level. Occupation remains of phase IB in form of postholes and lime plastered flooring and successive floor levels was documented. Phase IC was noticed in the upper horizon of the mound. However this level was badly disturbed. The ceramic assemblage at Takalghat has been divided into seven categories. The foremost and important tradition was painted black and red ware. This was the first time in megalith context painted ceramics bearing dissimilarity with preceding chalcolithic culture and succeeding early historical cultures were found. Few pot sherds of black and red ware bears graffiti like many other sites in Vidarbha have come into light of recent times. Other important wares were black burnished ware, tan slipped ware, micaceous red ware and coarse red ware. Micaceous red ware was documented in all the phases of Takalghat. Typical funnel shaped pots with globular body and basins were the common shapes met with in this type of ware.

Total nine burials were taken for excavations at Khapa. No full skeleton remains were found in any of the excavated megalith. Only fragments of human bones, some of them charred, were found inside a pot in the center of a stone circle. Interestingly, fragments of animal bones especially horse were prominently found in four out of nine excavated burials. The burials revealed a variety of iron and copper antiquities. Iron implements included ladle, nail parer, fishhooks, chisels, arrowheads, knives, spearheads etc. Copper antiquities mainly comprised of bangles, pots and horse ornaments. Variety of semi-precious stone beads of carnelian (etched / without etching), agate and crystal were found from the excavations of these burial. Abundant ceramics were recovered during the excavations of burials. The prominent type was micaceous red ware and coarse
red ware (Deo 1970a). The most noteworthy discovery of the excavations was the confirmation of relationship between habitations at Takalghat with burials at Khapa.

**Only Habitation Sites**

This category consists of sites which have yielded only habitation deposit of early Iron Age. No remains of megalithic burials were found nearby these sites.

**Arni (20° 4' N; 78° 59' E)**

The Ancient site Arni is located on the bank of Arunavati river in Darvataluka of Yavatmal district. The excavations at the site were conducted by Nagpur University under the direction of Ajay Mitra Shashtri during two seasons; first in 1978 and six years later in 1984 (IAR 1978-79: 71-72; IAR 1984-85: 55). A three-fold cultural sequence was revealed during the excavations. The lowermost occupation at the habitation site belonged to megalithic culture. Ceramic assemblages of this period were painted tan ware, black and red ware, micaceous red ware etc. No cemetery of megalithic period was found in or around habitation site.

**Adam (21° 00' N; 79° 27' E)**

This fortified settlement of the region is located on the left bank of Waghor river of the Wainganga drainage system. It is located nearly 60 km south east from Nagpur in Kuhitaluka of Nagpur district. The site spread in an area of eight hundred meter east-west and five hundred meters north-south and had an eight meter deposit. The site was excavated by Amrendra Nath from Archaeological survey of India during five consecutive sessions from 1987-88 to 1991-92 (IAR 1988-89: 50-61).

The excavations at the habitation mound at Adam revealed fivefold culture sequence. Period I was microlithic cultural deposit identified by a ceramic level with stone tools. This was succeeded by Vidarbha Chalcolithic culture which was identified as period II. Period III at the site was Early Iron Age / Megalithic period with finding of iron. This period dated between circa 1000 BC and 500 BC (IAR 1988-89: 50-61). The layers assigned to this period belonged to one compositional class of ash-deposit occasionally mixed with soft clayey earth and charcoal-bits. The ceramic types of this
period includes medium to coarse red ware which predominated black and red ware while the latter outnumbered the black slipped ware. Few black on red ware consisted of a variety of painted designs. It is also noteworthy that designs of earlier period continued with the addition of a few new types. Coarse micaceous red ware was also painted with a thick brush over a chocolate-slipped base. The painted motifs comprised of vertical parallel dashes, parallel horizontal lines, flame designs, chequre board pattern, horizontal and vertical strokes etc. These designs generally occur on the shoulders and body part of the pot but base of some table wares like dish or bowl also bore painted designs. Paintings were generally done in black color but few specimen having painted designs in white were also documented from the upper phase of this period. Graffiti marks were also found on few sherds.

Evidence of settlement was identified from the remains of post holes and a semi-circular mud-floor. The most notable feature of the excavations was the discovery of a rampart of early Iron Age period as testified in stratified context. The rampart wall running north-south was exposed at a stretch up to ten meters showing on an average height of 1-40 meters and a width of 7 meters. It was built out of yellow murrum and earth. This rampart also yielded pieces of iron slag and rammed sherds of black-and-red, black-on-red and other wares. Antiquities of early Iron Age included beads of semi precious stones, bone points, stylus and fragments of shell bangles. Special mention may be made of etched carnelian beads and terracotta beads. Iron arrowheads, chisels, knives, ploughshares, rods and points were also found. Copper objects included antimony rods and figure rings. No remains of burial were found near the site.

**Arambha (20° 34’ N; 78° 59’ E)**

Arambha is located 72 km. south west of Nagpur in Samudrapur taluka of Wardha district. This site was excavated by ASI, Nagpur branch under the direction of Amrendra Nath (IAR 1991-92: 73-74). The excavations revealed fivefold cultural sequence. Period I was assigned to Chalcolithic-megalithic deposit. Total 65 cm deposit of brown color with patches of black cotton soil was identified as belonging to this period. A “U” shape
hearth with an opening (25 cm wide) was one of the important finding of the period. The walls of the hearth on an average were 13 cm in thickness while its back wall was 20 cm thick. This hearth contained ash, charcoal bits and potsherds. The diagnostic painted potteries of the period were black painted black-and-red ware and white painted black-and-red ware. The paintings were done on the rim and shoulder portion of the pots. Painted designs were variants of comb and palm leaf patterns and vertical strokes. Besides hopscotches, no other antiquarian remains were unearthed from this deposit as a major portion of the stratified deposit was disturbed due to a later pit activity. No burial monuments were found near this habitation site.

**Kachgad** (21° 77’ N; 80° 36’ E)

This is an important cave in Darekasa group of natural caves located on Bombay-Hawrah railway route, passing through Gondia. The site is located in Gondia district on the border of Maharashtra and Chhattisgarh. The site was explored and excavated by Archaeological Survey of India Prehistory Branch, Nagpur. This cave is located at a height of 518 meters. Four groups of cave were identified in Kachgad cave locality and the biggest one measured 58 meter north-south and 57 meter east-west. The opening width of the cave was 25 meters and the minimum height of the cave was 94 meters (Sharma 2005).

Trench measuring 3 x 3 meter was taken in the center of the cave to find out the habitation remains. Excavations yielded deposits right from middle Paleolithic age to early historic times. At a depth of 35 cm. layer no 3 was assigned to megalithic period. The deposit of this layer composed of ashy material. Small hearths were also noticed in this deposit. Ceramics assemblage consisted of typical black and red ware sherds with paintings. Common shapes identified were bowls with featureless rim. The painted designs generally consisted of wavy parallel lines and vertical lines on the outer surface of the pots. Antiquities include hop scotches, carved out of potsherds and stones and iron bangle pieces. No burial of megalithic period were found in the vicinity of the site (Sharma 2005).
It is significant to note that the caves provide an ideal place for habitation and offers protection from rain and sun. However, except Kachgad cave, no settlement of Iron Age period has been hitherto reported from a cave in Vidarbha. In this case, present site assumes importance. But some scholars doubt the early Iron Age affinity of the site.

**Koundinyapur (20° 55' N; 78° 05' E)**

The site Koudinyapur is located on the eastern bank of Wardha river in Amravati district. The site has a puranic history as it is mentioned in ancient literature. The excavations at Koudinyapur were an attempt to verify the literary data with archaeological evidence. The site was excavated in two seasons during 1962 and 1964 by M.G. Dixit from Nagpur University in collaboration with the Education and Social welfare department, Government of Maharashtra (Dixit 1964). Excavations at Koudinyapur revealed six different cultural assemblages. Period I was assigned to Megalithic period. The finding of early Iron Age / megalithic deposit from the lowest level was similar with eastern Vidarbha megalithic sites. The pottery found in the excavations mainly constituted of black and red ware and red ware. Common shapes were bowl, dishes and different types of pots. Large numbers of sherds bearing graffiti marks on both interior and exterior portion of the body especially on the black and red ware were found. Beads of semi-precious stones were also found from the excavations. A small scale excavation at the site was also carried out by Deccan College in 2000-2001 (IAR 2000-2001: 92). Throughout the sequence black-and-red ware, micaceous red and red-slipped wares were present as the major ceramic types. Black-and-red ware of megalithic type was found from the lowermost level. Botanical remains along with rice husk collected from excavations indicate the dominance of rice cultivation in Vidarbha (*Oriza sp.*). No remains of burials were found nearby the habitation mound.

**Tharsa (20° 15' N; 78° 21'E)**

The well-known habitation site of Tharsa is located 42 km. north east from Nagpur and about 7 km. from Tharsa railway station. This site was excavated under the direction of Ajay Mitra Shashtri during 1985-86 (IAR 1985-86: 58-60). The limited
excavations conducted on the western slope of the mound revealed a habitation deposit of megalithic culture of about 0.85 meters. The ceramic assemblage consisted of black ware, black and red ware, red ware, micaceous red ware and black-painted red ware. All these wares included both slipped and un-slipped varieties. The common types included bowls, dishes and vases. The paintings were done in black, and rarely in violet on red slipped surface. A few black and red ware sherds also bore paintings. The painted designs included vertical and oblique strokes, horizontal bands followed by slanting lines in groups, hatched diamonds framed in horizontal lines, etc. In most of the cases, the rim of the vases was decorated with groups of vertical or oblique lines on both internal and external sides. Other antiquities included an iron nail, oval iron ring fastener, terracotta beads and bone points.

**Shrikhanda (21° 15’ N; 79° 20’ E)**

The hamlet Shirkanda is situated about 75 km. north-east of Nagpur district on the left bank of the river Sur which is a tributary of Wainganga. The site was excavated by the Nagpur University under the direction of Ajay Mitra Shastri during 1991-92 (IAR 1991-92: 68-69). According to the excavator, a 10 x 10 meter trial excavation at the site revealed a series of well-made floor levels with post-holes, kilns/ furnaces, pottery and a few other minor antiquities thus indicating the continuation of occupation for a considerable time during Chalcolithic-Megalithic period. Ceramic assemblage of this period included micaceous red ware, black and red ware etc. The main pottery types were vases, jars, basins, dishes, bowls, lids. The painted designs included groups of vertical lines on both sides of the rim, groups of horizontal lines, horizontal bands running round the shoulder with hatched diamonds joined to the lowest horizontal line. It is also observed that the paintings were invariably done on rims, shoulders and waists, mostly on outer surfaces, but sometimes they were also executed on the inner surface, particularly of bowls.

Evidence of kiln or furnace of megalithic period was recovered in excavations. In the southwestern corner of quadrant III, three inter-connected depressions bounded with clay walls/ridges with thoroughly burnt marks were noticed. Iron slag and ash was also
found from this formation. Second such structure was found in quadrant IV. It had a well-defined raised ridge with four openings to the east. The third structure was a circular hearth-like formation, about 10 cm thick, with burnt clay ridge on all sides except on the east. It also yielded ash and a small iron chisel-like object lying on the right side of the opening. The presence of slag, iron object, thoroughly burnt patches and lots of ash suggest the probable use of these structures as smelting furnaces (IAR 1991-92: 68-69).

**Chandankheda (20°16' N; 79°12' E)**

The ancient site of Chandankhera is situated 25 km. north from Bhadravati in Chandrapur district in Maharashtra. The site was jointly excavated by the Nagpur University, State Department of Archaeology, Nagpur, Maharashtra and INTACH Chandrapur Chapter in 2009-10 under the direction of P.S. Meshram (Sontakke and Meshram 2010). The total area of site was about 500 x 500 meters while the deposit ranged from 3 to 5 meters. The northern area of the site is occupied by the present day village and most of southern part is disturbed by the local brick manufacturing activities. The lowermost stratum of the excavations revealed Early Iron Age / Megalithic period occupation. The remains of this first settlement were evidenced by shreds of the black and red ware, micaceous red ware and the coarse red ware along with a few very heavily encrusted pieces of iron of indeterminate use. The floors were found not evenly rammed nor well finished. However, in course of time, the settlement seems to have prospered as the evidence of pottery and other antiquity remains increased in quantity and quality in the subsequent deposits. Towards the upper part of this period, greater amount of fine black and red ware pot and better fired red and red slipped ware came to light. The shapes encountered were variety of bowls, dishes cum bowl in black and red ware and pots and basins in micaceous red ware (Sontakke and Meshram 2010).

**Material Culture of Early Iron Age of Vidarbha**

**Ceramic Assemblage**

The megalithic builders of Vidarbha used wheel turned and kiln fired ceramics (Deo 1985: 89-99). The main ceramics found in megalithic habitation and burials are
black and red ware, micaceous red ware, coarse red ware and black burnished ware besides other minor varieties. The black and red ware has its beginning from protohistoric period in urban Harrapan civilization (Rajan 1969: 67-89). The study pertaining to black and red ware revealed that its association throughout the cultural period is mainly because of its production of technique. A typical black and red ware is completely black from inside up to the rim portion of the pot on its outer surface, whereas the rest of the outer surface of the pot has reddish slip. The color combination of this ware has been ascribed to a process called inverted firing (Majumdar 1969: 90-93). The process of oxidizing played important role in this ceramic. Firing a pot upside down with close contact to fuel created a reducing atmosphere in the inner part of pot which gave it black color while the outer surface turned red due to its exposure to oxidizing conditions. The main shape of this ware as noticed from megalithic period in Vidarbha is restricted to only table ware (Deo 1970a; Shete 2009: 66-76). The common shapes are bowls, dishes and pots with lids. Varieties of bowls are found in this category which includes rimless bowls, shallow bowls, bowls cum dishes, bowls with carination etc. Dishes of this ware generally have convex sides. Lids with animal/bird finial are the characteristic feature of this variety reported from megalithic burials. These are found in form of birds, goat and animal figures (Deo1970a; 1973a).

Painted black and red ware is yet another characteristic feature of megalithic Vidarbha. The painted sherds are generally reported from the habitation sites and rarely found in burials like at Naikund and Raipur (Deo & Jamkhedkar 1982; Deglurkar & Lad 1992). However, burials of Mahurjhari, Junapani, and Raipur also yielded painted shreds though in less number as compared to habitation. The paintings are done on various shades of red such as matt red, chocolate red and bright red. The painted designs includes pair of horizontal lines, vertical strokes generally over the rim (both on the exterior and interior), wavy parallel lines, hatched diamonds, grilled squares and comb pattern. It is observed that the paintings are generally done over body and shoulder portion of the pottery. Excavations at Raipur yielded two sherds of white painted black and red ware (Joshi 1992).
After black and red ware, micaceous red ware forms the dominant pottery type in megalithic community of Vidarbha. This ware is closely associated with the Vidarbha megalithic society and it gained a special regional significance due to its occurrence in all the excavated burials and habitation sites of Vidarbha that too in huge quantities. As its name suggests, the ceramic of this ware have a thick section and the clay is often mixed with mica flakes varying from small to big flakes. Occasionally, the pottery of this ware is ill-fired and sometimes the flakes of mica are so big that they led to pot breakage (Deo 1973a). But the smaller flakes of mica resulted in imparting a glittering finish to the pot’s surface (Deo and Jamkhedkar 1982). The micaceous red ware is generally found from both the stone circles and settlements. It is significant to note here that Nagpur region has a good source of mica. Its local abundance was probably responsible for its large scale usage by the Megalithic community for ritual or shining purposes. The common shapes of this ware include large size storage vessels, pots with globular body and funnel mouth, basins and dish on stand. Along with typical micaceous red ware, presence of mica slipped ware is also found in many excavations in Vidarbha (Deo 1973a). Mica slipped red ware has a medium to thick mica coating. It is well fired and more importantly its core does not contain any trace of mica flakes. Pots with funnel mouth, pots with concave neck and constricted neck are main ware in mica slip red ware. Black burnished ware resembles black and red ware thus, it is not possible sometimes to distinguish between both the wares until the availability of base of the bowl or dishes (Deo 1973a). This ware is black from interior and its exterior portion has a shiny outer surface. The bright shining on black surface is the result of post firing process. Black burnished ware shapes prominently include bowls and dishes. The bowls are generally rimless with convex body besides a variety of dishes. Apart from bowls and dishes, lids with animal bird finials and lids with cylindrical knobbed holding also figure as an important find in this ware. Other than above mentioned ceramics of black and red ware, micaceous red ware and coarse red ware, red burnished ware is also found from Early Iron Age sites of Vidarbha (Deglurkar and Lad 1992; Shete 2009: 66-76).
Stone Artifacts

The stone objects can be divided into two broad categories. The first consists of stone objects of domestic purpose while the second category includes ornamental objects. The domestic stone objects are found from both habitation and burial. They generally include mullers, pestles, querns and pounders made out of sandstone. Pounders have a cylindrical body with flat or circular surface. Such pounders are documented from stone circles of Junapani (IAR 1961-62: 32-33), Mahurjhari (Deo 1973a) and Raipur (Deglurkar and Lad 1992) and from habitation deposit at Naikund (Deo and Jamkhedkar 1982).

The most noteworthy objects found from the megalithic burials are variety of beads of semi-precious stones. The megalithic burials of this region in particular and Vidarbha in general produced beads of agate, carnelian, Jasper, garnet and quarts (Deo 1973a, Mohanty 1999a, 1999b, Thakuria 2010). Mahurjhari, Junapani and Raipur yielded a large number of beads of circular, square, rectangular, tabular and hexagonal (Thakuria, 2010). In fact, Mahurjhari was identified as a centralized bead manufacturing center of the central India during megalithic period (Mohanty 2003b; 2008). The source of raw material for bead manufacturing in this area was identified in the dykes in Deccan trap available in the vicinity of Mahurjhari.

Metal and Metallurgy

A variety of iron, copper and gold items were recovered from excavations of megalithic sites in Vidarbha which probably indicates the technological and metallurgical advancement of the society. Megalithic culture of Vidarbha is mainly associated with early Iron Age. The early usage of iron is reported from the excavations of megalithic burial and habitation sites. Iron objects relating to various usages are identified. Dishes, ladle, lamps, nail, clamps etc. were used for domestic purposes while daggers and knives were probably utilized for offensive purpose. Adzes, hoes and sickles were meant for purely agriculture purposes and axes and chisel were mainly used for carpentry purposes (Deo 1970a; Deo 1973a; Deo and Jamkhedkar 1982; Deglurkar and Lad 1992). The excavations at Naikund brought to light a clay furnace having a diameter of 30 cm and height of 25 cm in the habitation area (Gogte 1982a; 1982b). Two tuyeres were found.
near the furnace. It appears that they were used to pass the air into furnace from the bellow. Furthermore, slag weighing about 40 kg was also found in situ in the vicinity of the furnace. All these evidence point that probably this furnace was an iron smelting furnace.

Moreover, it is also estimated that the Naikund megalithic smelters used about 10 to 12 kg iron ore for single smelting operation which produced about 3 to 4.2 kg pure iron (Gogte 1982a). The source of iron was located nearly 1 km away from the site. The micro analysis of the ore from the smelting area revealed the presence of crystalline to microcrystalline micaceous hematite quartzite which is generally associated with the manganese ores lying 3 km away from the site. It is suggested that due to the availability of raw material for iron smelting at Naikund, this site was consciously chosen as a settlement by megalithians. Scientific studies also confirms that Naikund was the major manufacturing and distribution center of the region which probably supplied its finished iron items to the neighboring sites like Takalghat and Mahurjhari (Gogte et.al. 1984: 49-52).

Besides iron, plenty of copper items were also found from the excavations at burial and habitation sites of Vidarbha. Copper antiquities may be classified into groups on the basis of probable usage. Bowls, lids and dishes were used for domestic purposes. Bangles, finger rings, antimony rods for personal ornamentation. Besides, a majority of copper objects found from megalithic period constitutes of horse ornaments like bells and horse face ornaments. It is important to note that more usage of copper as compared to preceding chalcolithic culture is seen in this period. But there is also a marked technological enhancement in copper technology represented in bird motifs on lids, daggers and especially in horse ornaments seen during this period (Deo 1973a). However, no copper smelting evidence is hitherto found from Vidarbha megalithic complex. Scientific studies of copper objects from megaliths have revealed that copper antiquities are mainly made of bronze and gunmetal alloy. For hardness, 1 to 1.3 % iron was mixed in it (Munshi et al. 1970). The source of copper for megalithic people is uncertain. Sporadic evidence of copper mineralization is found in Chandrapur, Bhandara and Nagpur districts (Soitkar 1999). But it is not yet clear if these sources were utilized by megalithic community of Vidarbha. There is also a probability that the megalithic people
of Vidarbha exchanged their iron implements for copper with their south Indian counterparts.

Not much occurrence of gold as compared to iron and copper is observed in megalithic context of Vidarbha. Gold is found in form of ornaments of personal use like necklaces and ear rings and wires. There is no solid deposit of gold in the Vidarbha region but gold can be extracted from the river alluvium. In Vidarbha, especially in the eastern part of it, alluvial of “Son” river, which is a tributary of Wainganga river, is famous for gold particles. The nomenclature of the river is also derived from gold Son means gold in Marathi. It is questionable up to what extent this gold was utilized by Vidarbha megalithic people.

**Settlement Pattern**

The remains of houses in form of huts are found from excavations at Takalghat (Deo 1970a), Naikund (Deo and Jamkhedkar 1982), Bhagimohari(IAR 1982: 61-62; IAR 1983-84: 57-58), Mahurjhari (Mohanty 2005b: 106-07) and Vyahad (Ismail 2006). The repeated use of floor and evidence of plaster is found from all these excavations. Generally, the floors were made by capping kankar over a hard rammed black soil at the base. On this capping, a plaster of fine soil topped by lime plaster was applied. Excavations at Naikund revealed the house pattern of megalithic community in form of a circular hut with a diameter of 4.9 meters and post holes encircling the hut. This hut also gave the evidence of a hearth and kitchen artifacts like pounder along with botanical remains. Takalghat has furnished the remains of a floor made of rammed clay plastered with lime with wooden post sunk in it. Excavations at Bhagimohari furnished a circular plan of house with diameter between 3.25 and 3.80 meter. Post holes were found around the periphery of the hut (IAR 1983-84: 57-58). They were meant for supporting the superstructure. A semicircular hearth was found placed inside the hut. Besides this, a number of floor levels, each made of a bedding of black clay, covered over by compact brownish clay, the surface of which was plastered with lime occurred in the excavations. Similarly further excavation at the site has revealed rectangular house plans having courtyard in the front (Mohanty: Pers. Comm.) Successive floor levels indicate the
continuation of habitation of early Iron Age community. An evidence of mud wall was also documented from the excavations at habitation in Vyahad.

**Mortuary Practices**

Burial customs have always represented a collective effort of society. However, archaeological vestiges suggest that the most emphasis to the burial custom was given by megalithic people as witnessed in their burial monuments spreading over the length and breadth of the country. Different modes of disposing the dead were prevalent in the society. It is noticed that most of the excavated burial of the Vidarbha did not yield full skeleton remains save a few cases like Mahurjhari where double and extended burial has been found (Deo 1973a). It is also significant to note that the incorporating secondary skeleton remains are high in number. The tradition of burying multiple burials in single circle was also in vogue. Recent excavations at Dhamnalinga (IAR 2000-01: 97-107) and excavation on the cemetery area at Mahurjhari (Mohanty 2005b:106-107) yielded peripheral and normal burial practices which throws light on the probable family affiliation of the deceased and the usage of burials by many general people. This evidence also shows that the burials were not made specifically for every member of the megalithic society. The skeletal remains bearing burnt mark suggest that cremation mode of disposing dead was also popular in the society. The main burial goods observed were pottery especially micaceous red ware. These pots are reported from most of the stone circles in Vidarbha. Metal objects as mentioned above including iron, copper and gold were also found as burial goods in the megalithic burials.

**Subsistence Strategies**

There are various views pertaining to subsistence strategies of megalithic culture ranging from pastoral economy with pastoral agricultural mode of subsistence, to complete agricultural mode of subsistence and finally that of specialized pastoral mode of subsistence (Deo 1970b; 1985: 89-99). These views are based on the paucity of agricultural implements, scanty botanical remains, small area of excavation, a few habitation sites as compared to burial sites and large occurrence of bones of domesticated animals in the excavations. However, the excavations at Naikund gave a breakthrough to the subsistence strategy of Vidarbha megaliths as it provided a great variety of botanical
remains like wheat, lentil, common pea, black gram and Indian jujube which were recovered during flotation technique (Kajale 1982). Excavations at Bhagimohari also documented a large number of burnt grains including wheat, barley, black gram, rice etc. these crops indicate the production of double crop during rabi and kharif seasons (Kajale 1989). Availability of agricultural tools such as hoes, sickles also indicates agricultural practice. Stone pounders and mullers along with circular bins are found from the habitation floors at Naikund, Bhagimohari and Mahurjhari which suggests the storage of surplus food grains in house (Deo and Jamkhedkar 1982; IAR 1982: 61-62; IAR 1983-84: 57-58; Mohanty 2005b). Burial making too seems as an important work in megalithic community. Numerous people were involved in it. It is still not clear if it was a conscious collective effort mandatory for members of megalithic society or it was a result of paid labour? Hypothesis made by Mohanty reports an off season burial construction. Experimental re-construction of megalithic burials in Bhagimohari shows that a burial with 13.5 meter diameter and 0.82 meter deposit needed almost 185 men a day to erect such a complete circle (Mohanty et al. 1996: 136-149). If this was the level of effort put in burial making then it appears that a section of society was actively involved in burial making. Empty burial found at Raipur and Davalameti may be taken to indicate the construction of burial in advance by megalithic people during the off season when agricultural work was not carried out (Thakuria 2010).

Animals served various demands of megalithic society such as agricultural, milk and meat consumption and transportation. The animal bones recovered from the excavations are mainly of horses, cattle, sheep, goats and pigs. Numerous cattle bones indicate they were the most preferred animal probably for domestication and agricultural purposes followed by sheep and goats. Besides these, a large amount of bones of wild animals and birds were recovered from various stages of the occupation thus suggesting animal consumption in the society (IAR 1982: 61-62; 1983-84: 57-58; Badam 1982, Thomas 1992a; 1992b; 1993; 1995).

**Date of Early Iron Age in Vidarbha**

As indicated earlier, the early usage of iron in Vidarbha is mainly associated with Megalithic culture. The first attempt to impart a time frame to megalithic period in India
by was done by Wheeler for south Indian megaliths (Wheeler 1947: 181-308). In Vidarbha, first scientific C-14 dating of megalithic period was done by Deo at Takalghat where the date of middle phase of the occupation came out to be 2505±100 = 555 BCE. Taking this into consideration, the excavator believed that the early Iron Age in Takalghat possibly began in 7th Century BCE (Deo 1970a). He also pointed out that since the date of Hallur was 1000 BCE (1030 ±105 BCE.), therefore, cultural affiliation of Hallur to Takalghat could be possibly earlier than 7th century BCE. C-14 samples collected from excavations at Naikund have given various dates range between 690 ± 110 BCE. and 300 BCE. According to the excavator, the megalithic remains at Naikund can be placed between 6th Century BC and 4th century BCE. (Deo and Jamkhedkar 1982). Khairwada provides a C 14 date 510 ± 100 and 420 ± 100 BC. range between 6th century BCE. to 4th century BCE. It is significant to note that these dates are from the mid phase of the megalithic habitation. Bhagimohari also gives plenty of C-14 dates from various depths of the habitation (Thakuria 2010). The earliest date at Bhagimohari goes back to 8th century BCE. as result of C-14 dates of the middle phase of the occupation BS 536: 750 ± 100 BCE. Therefore it is suggested that these dates could go earlier.

Some Early Iron Age sites have been relatively dated on the basis of respective material culture mainly ceramic assemblage. Excavations at Kaudinyapur revealed six fold culture sequences wherein earliest stratum belonged to early Iron Age. Non availability of coins and NBPW assemblage in this stratum, led the excavator to put this period somewhere between 800-600 BCE. The main characteristic features of this period were black and red ware ceramics and etched carnelian beads. On the basis of available C14 dates from Hallur, the date of Early Iron Age in south India was taken back to around 1200 BCE. Recent dates from Veerapuram give a time frame of 1500 BCE. (Chakrabarti 2006). Adam has also provided few C-14 dates which take the date of iron prior 1400 BCE. Recent studies carried out in Middle Ganga Plain clearly show Early Iron Age going back to the second millennium BCE (Tewari 2003). In light of above advances, it is that suggested that the beginning of early Iron Age in Vidarbha can also be pushed back to around middle of second millennium BCE.