Chapter – I

The Study Area and Its Cultural Facets

The Early Iron Age culture is mostly represented in the form of Megalithic burials and at times in association with habitation remains in Vidarbha. However site like Tharsa have also revealed Early Iron Age remains with no associated Megaliths. The burial remains of the Megalithic people have been identified from the time of colonial rule by antiquarians such as Babington, in the Malabar Coast of Karnataka (Babington 1823: 324-330), Hislop (1857, 1861a, 1861b) and Rivett-Carnac (1879) in the Nagpur region, Rea in the region of Tamil Nadu (1902-03) and Meadows Taylor in the region of Karnataka (1841, 1841a, 1851, 1852 and 1862). However Early Iron Age culture should not always be associated only with Megalithic burials.

This chapter deals with the cultures that led to the development of Early Iron Age in Vidarbha. The association of the site location with its surrounding natural environment also has helped us to unravel the mechanism behind the procurement of raw materials and the methods adopted to make the final iron objects. Since all the representative iron objects studied here fall within the category of Megalithic Culture of Vidarbha, it would be helpful to study all the known sites as the development of cultures within this ecological zone provide a basis to understand the relationship between human beings and land.

1.1 Geographical, Legendary and Literary Background

Vidarbha region (20° 45’ 31.3” N to 20° 11’ 9.6” N and 76° 10’ 55” E to 80° 11’ 46” E) in the state of Maharashtra, encompassing the easternmost 11 districts of the state namely Nagpur, Chandrapur, Gadchiroli, Bhandara, Gondia, Wardha, Amravati, Akola, Buldana, Yavatmal and Washim (Fig.1.1.1). Vidarbha shares borders with Madhya Pradesh in the north, Chattisgarh in the east, Telangana in the south and Marathwada and Khandesh regions of Maharashtra to the west (Fig.1.1.2).

Several legends surround the origins of the name ‘Vidarbha’. One of the many legends refers to the Vedic sacrifices that were performed in Vidarbha which resulted in the exhaustion of all the *darbhas* (sacrificial grass), therefore an area without any *darbhas* came to be known as Vidarbha (Panashikar and Gore, 1925). Vidarbha has been mentioned in the later Vedic texts and

Mahabharata (Kane, 1917). In the *Naisadhiya* (poem written by Shri Harshavardhan) we have the mention of Damayanti, daughter of King Bheesmaka. King Bheesmaka belonged to Vidarbha. We also find the mention of Vidarbha in *Bhagavata Purana* 10.52.16 in the form of Vaidarbhi Rukmini which literally means "the one who is born in Vidarbha". Rukmini was the daughter of Bheesmaka, the King of Vidarbha, who was married to the famous mythological character Krishna.

Another legend refers to a large kingdom that was set up north of the Godavari by Vidarbha, the son of Risabhadeva. The capital of this kingdom was Kundinapura in Amravati District which has come to be identified as Kaundinyapura. Furthermore it is supposed that Agastya, a famous seer stated in some of the hymns of the *Rig Veda*, had crossed the Vindhyas and set up his hermitage on the banks of Godavari. It is said he had married Lopamudra the daughter of King Vidarbha and her name is mentioned in the *Rig Veda* (I. 179.4).

The importance of Vidarbha continued into the historical period. An Asokan inscription issued in the 14th regnal year by a Dharmamahamatya has been discovered from Devtek (Chandrapur District) (Mirashi, 1968), along with a Vakataka inscription executed in the Gupta nail-headed style Brahmi issued by the Royal Queen Prabhavati Gupta at the holy city of Ramtek. Ramtek is located in Nagpur District. It is well-known in the sphere of Sanskrit literature, as the play '*Meghdootum*' was possibly composed by Kalidasa here.

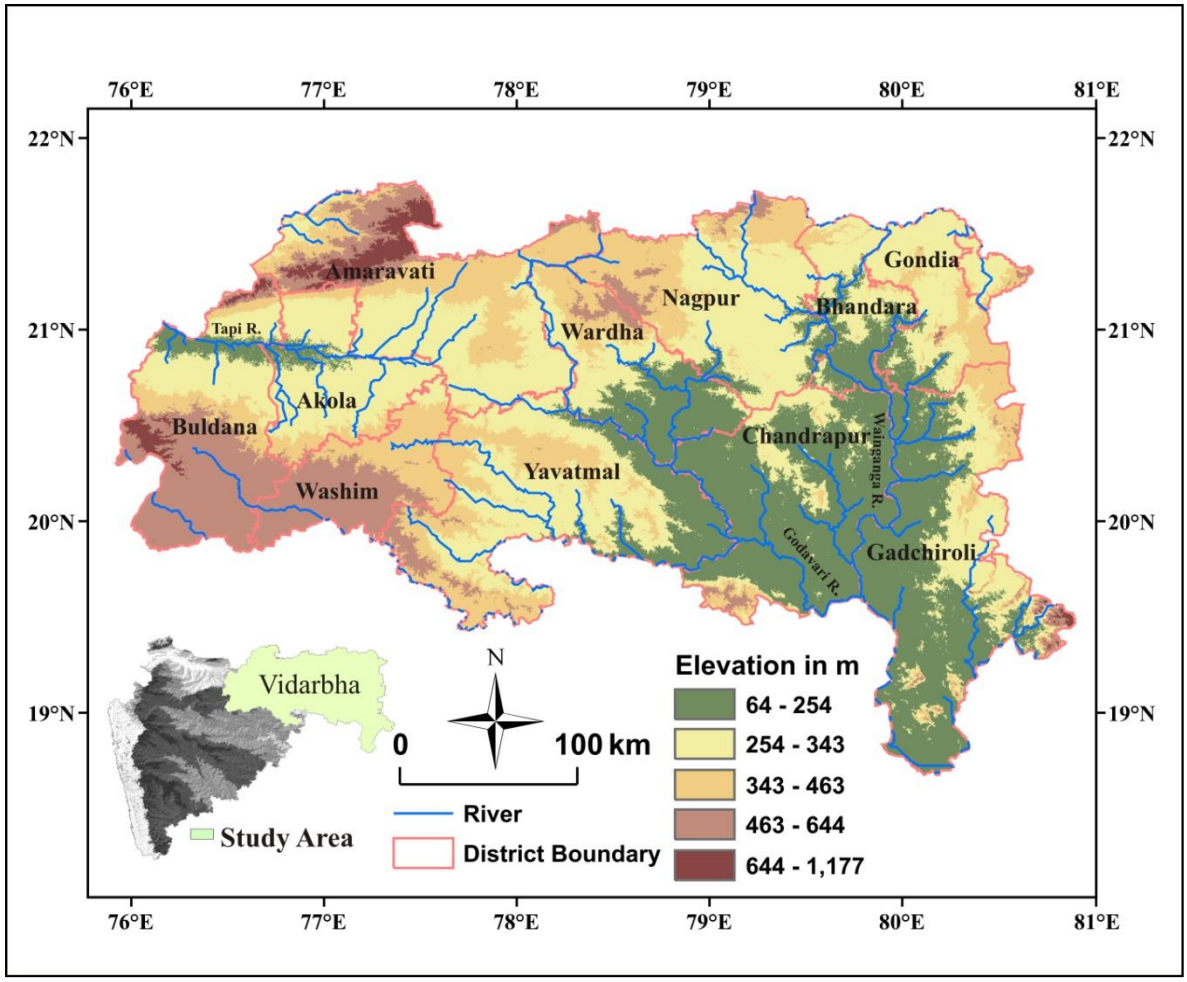

Fig.1.1.1: Map Showing the Study Area

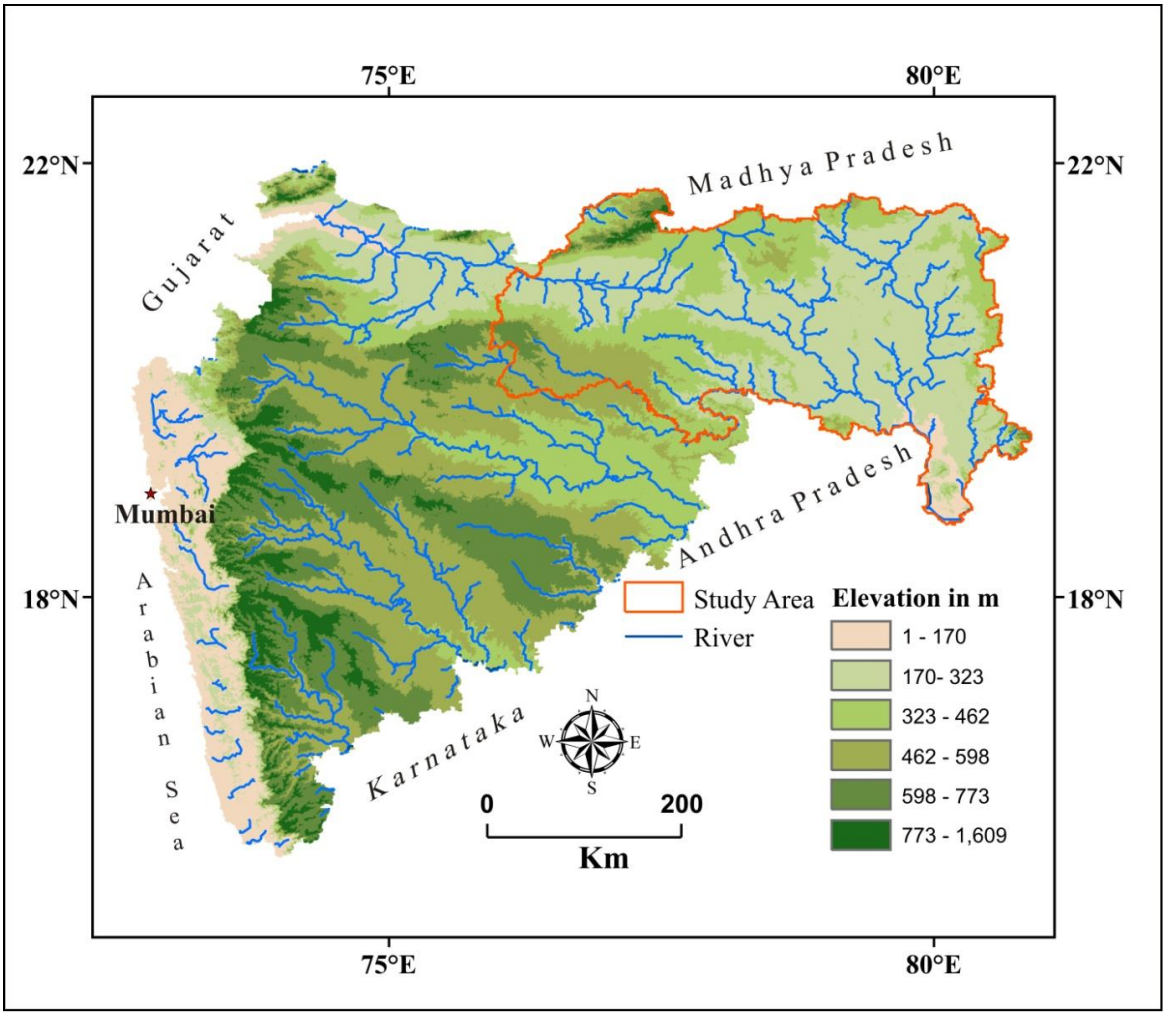

Fig. 1.1.2: Map Showing the Geographical Boundaries

1.2 Archaeological Background

The rich flora and fauna, abundance of water, favourable climate and a variety of raw materials for lithics needed for developing from one stage to another gave impetus to the prehistoric cultures here, right from the Paleolithic times. The formation of major river valleys has brought to light abundant stone tools representing Lower Paleolithic, Middle Paleolithic, Upper Paleolithic and Mesolithic cultures.

1.2.1 Lower Paleolithic Evidence

The Deccan traps formed by volcanic rocks characteristically unsuitable for use as stone tools has been cited as the main reason for the negligible presence of Lower Paleolithic cultures here. However areas abundant in quartzite such as seasonal streams, rivers and big streams brought to light a few Lower Paleolithic sites identifiable by the tools on the surface. A seasonal stream flowing a few hundred meters north-east of the present village of Mahurjhari, Nagpur District, yielded a few handaxes, cleavers and choppers from the associated gravel (I.A.R. 1979-80, p.l04). The site of Raipur Hingna well known as a megalithic site has also brought to light hand-axes made on chert (Personal Communication, Ismail Kellellu 2012). Typical Acheulean hand-axes from Nandanvan (Personal Communication, Ismail Kellellu 2012) near Sitabuldi and nearby areas reflects the first known Acheulean evidence in Nagpur .Sites such as Papamiya Tekdi (I.A.R.1960-61,p.22-24;1961-62, p.30;1962-63,p. 15; 1976-77,p. 78; 1986-87,p. 120-121; 1993-94,p. 78-79; 1994-95,p. 55) and Jhari-Mangrul (I.A.R. 1960-61,p. 24) from Chandrapur District also show similar Lower Paleolithic evidence. For instance, a Late Acheulean site was discovered along the northern banks of the Tadoba Lake in Chandrapur District (I.A.R. 1979-80, p.57). Although Gadchiroli has not been well explored, Bhamragadh a potentially important site was located here. A Lower Paleolithic factory site was noticed on the slopes of a hill and on the terrace of the river Pranhita (I.A.R. 1961-62, p.30; 1979-80, p.57). The Pranhita river section showed the Lower Paleolithic and Middle Paleolithic tools in stratified context for the first time in this region. . These finds have established that the Vidarbha region was inhabited during the Lower Paleolithic times and continued to be inhabited into modern times.

1.2.2 Middle Paleolithic Evidence

Vidarbha is very rich in Middle Paleolithic evidence because of the abundantly available trap rocks, which are fine-grained and crypto-crystalline in nature. The small flake tools are a marker of the Middle Paleolithic and were mainly made using this material which was abundantly available in the form of nodules, dykes and veins and all places wherever the contour runs between 320-335.28 m (*Personal Communication, Ismail Kellellu 2012*). It is important to note the areas generally preferred by the Middle Paleolithic people were later preferred by the Megalithic people too for construction of their burials. The naturally available raw material were

also used by them for bead manufacturing as evident in Mahurjhari (Thakuria, 2010).Thus the Megalithic sites of Nagpur too yield hundreds of specimens of Middle Paleolithic origin. Explorations during the year 1994 by Ismail Kellellu have brought to light 20 tool yielding localities within the city limits of Nagpur (*Personal Communication, Ismail Kellellu 2012*). The localities are mainly concentrated near the Ambajhari Lake, Futala (Telankhedi), Gorewada and on the slopes of the Seminary Hills, along the Nagpur – Amravati Road from the University Main Campus till Dattawadi (*Personal Communication, Ismail Kellellu 2012*). The Middle Paleolithic sites from Nagpur District are Nawegaon (I.A.R.I961-62.P.), Dhamangaon (I.A.R.1961-62,p.l01), Maroli (I.A.R. 1961-62,p.), Bhamiwara (I.A.R 1961-62, p. 101), Koradhi (I.A.R.1959-60,p.31-33), Khaira (I.A.R. 1959-60,p.33), Phetri (LA.R.1961-62,p.l01), Dhudhala (*Personal Communication, Ismail Kellellu 2012*), Jaipur (*Personal Communication, Ismail Kellellu 2012*), Kursapur (*Personal Communication, Ismail Kellellu 2012*), Kawdapur (*Personal Communication, Ismail Kellellu 2012*), Ridhora (*Personal Communication, Ismail Kellellu 2012*)and Salai Rani (*Personal Communication, Ismail Kellellu 2012*). At the sites of Jaitala and Ambajhari Middle Paleolithic tools such as scrapers, points, borers and blades are found embedded in the section (*Personal Communication, Ismail Kellellu 2012*). In the Chandrapur District Papamiya Tekdi (I.A.R. 1960-61,p. 22-24;1961-62,30 ;1976-77,p.78;1986-87,p.l20-121;1993-94,p.78-79;1994-95,p.55) and Jhari Mangrul (I.A.R. 1960-61,p.24) have brought to light a continuous sequence from Lower Paleolithic to Mesolithic. Similarly Bhamragadh in Gadchiroli District (I.A.R. 1961-62,p.30; 1979-80,p.57) have brought to light Middle Paleolithic deposits in stratified context. However mostly all the Middle Paleolithic tools have been random findings and have been found as surface occurrence without any stratified context.

1.2.3 Upper Paleolithic Evidence

Patne in Jalgaon District is a typical example of a Upper Paleolithic site (Sali, 1989) and it lies in Maharashtra. Similar sites were found from Vidarbha too, such as Papamiya Ki Tekadi and Jhari Mangrul in Chandrapur District (I.A.R. 1960-61,p. 24). In 1994, during the course of an extensive exploration in and around Nagpur an extensive Upper Paleolithic site at Dattawadi was noticed by Ismail Kellellu (*Personal Communication, Ismail Kellellu 2012*). Dattawadi is located 10 kms west of Nagpur on the right side of the Nagpur - Amravati Road. The site was identified based on the distribution of diverse tool scatters which included blades, borers, scrapers and

points made on blades of white chert (I.A.R.1994-95, p.55). Similar tools were also discovered from Borgaon in Nagpur District (*Personal Communication, Ismail Kellellu 2012*).

1.2.4 Mesolithic Culture

The major site falling in this techno-cultural phase is Adam (I.A.R.1987-88, p.;I.A.R.1988-89, p.50;I.A.R.1989-90, p.61) in Kuhi tehsil of Nagpur. The site was excavated by the Excavation Branch, Archaeological Survey of India, Nagpur. An aceramic Mesolithic level was discovered and distinct circular huts with rammed floors were discovered along with microlithic tools such as blades, scrapers, points, lunates and so forth. Similar tools made on chalcedony were documented from the campus of Vishveshwaraiya Regional College of Engineering (Personal Communication, Ismail Kellellu 2012).

1.2.5 Neolithic Culture

Few Neolithic Celts have been found from Adam, (I.A.R.1987-88, I.A.R.1988-89, p.50, I.A.R.1989-90, p.61) and Tharsa (I.A.R. 1984-85, I.A.R.1989-90, p.66-67), but they have been identified as isolated finds. Within the Indian sub-continent very few Neolithic sites have been found and the information is scanty about this culture.

1.2.6 Chalcolithic Culture

Evidence for Chalcolithic period of the region is still shrouded in darkness. Some sites indicate certain similarities with the Malwa and Jorwe Culture such as Tuljapur Garhi (Amravati District) located on the bank of River Purna a tributary of Tapi (I.A.R. 1965-66, p.27, 1984-85). This has pushed the limits of the Chalcolithic phase, and it now includes the entire Purna Valley. On the basis of the Black Painted Red Ware few more sites were identified such as Kaundinyapur in Amravati District (Dikkshit, 1968), Marda (I.A.R. 1959-60, p.31; 1963-64, p.22), Ashti (I.A.R.1973-74, p.2I) and Masalarith in Chandrapur District (I.A.R. 1959-60, p.31), Thameshwansa (I.A.R.1983-84, p.56) and Armori in Gadchiroli District (Personal Communication, Ismail Kellellu 2012), Paunar in Wardha District, Pachkhedi and Tharsa in Nagpur District (*I*.A.R. 1984-85, 1989-90, p.66-67). It is interesting to note that the identified Chalcolithic sites do not generally yield abundant lithic evidence.

The excavation at Tharsa in the season 1985-86 had yielded two urn-burials containing remains of a child at the same level as the remains of circular huts, bin platforms, hearths, bone points, terracotta beads, painted pottery, Black-and- Red Ware, Micaceous Red Ware along with both copper and iron objects. The presence of Micaceous Red Ware and Iron objects at an Urn Burial Chalcolithic site points towards a later period Chalcolithic settlement or a probable cultural contact between the existing Chalcolithic and Megalithic cultures. Tuljapur Garhi, is the only site in the Vidarbha which yielded Malwa and Jorwe phases similar to the Deccan Chalcolithic (Bopardikar, 1996). Excavations at Adam brought to light, for the first time, a cultural phase since then referred to coined as the 'Vidarbha Chalcolithic' (I.A.R.1987-88, p.85, 1988-89, p.50; 1989-90.p.62). According to the excavator, Period II of Adam is ascribed to the Vidarbha Chalcolithic as the ceramic industry did not correspond either in form or in description with any contemporary Chalcolithic cultures of the region adjoining Vidarbha. This was followed by the Early Iron Age and the Megalithic Culture, which is the main period of study in this dissertation. The sites falling under this category will be discussed in the latter half of the chapter. It is important to note that the period of second urbanization in this region associated with the origin of iron technology by scholars such as Vaidya (2014) have also suggested that the seeds of the second urbanization was sown during the Chalcolithic period.

1.2.7 Vidarbha During the Early Historic Period

Vidarbha has experienced both urbanization and de-urbanisation during the Early Historic period as reflected in the archaeological evidences from the major sites of Kaundinyapur, Adam and Paunar. Majority of the evidences are in the form of numismatic and epigraphic sources (Sawant, 2012). It is important to understand the formations during this period as the Early Iron Age centres developed into urban Early Historic centers such as Mahurjhari.

This segment deals with the Early Historic chronology of Vidarbha and it is important to note that during this phase for the first time, archaeological and literary evidences both play an important role.

1.2.7.1 Gleaning Numismatic Evidence from Vidarbha

During the Historical period, Vidarbha came under the rule of the Nandas, Mauryas and the Shungas for which, however no direct evidence is available. Few sites have yielded habitation deposits of the Mauryan period. These include Adam (IAR 1988-89: p. 50-62; 1989-1990: p. 61-65; 1990-91: p. 45-50; 1991-92: p. 63-68; Nath 1992a: 69-79), Arambha (IAR 1991-92: p. 73-74),Arni (IAR 1978-79: p. 71-72; 1984-85: 55-56), Bhawar(IAR 1992-93: p. 55-62), Bramhapuri (Sawant, 2006), Kaundinyapur (Dikshit 1968), Mansar (IAR 1995, 1998, 1999; Joshi and Sharma 2005: p. 1-16), Pachkheri (IAR 1991-92: p. 64-73), and Pauni (Deo and Joshi, 1972; Nath, 1998). A few punch-marked silver coins have been reported from Bhandara, Malegaon, Mangrul, Umrer and Salebhatti (Jain 1957). Apart from these hoards, a few coin specimens, assigned to the Mauryan period, are also reported from Kaundinyapur (Dikshit 1968: 136). A fairly large number of uninscribed cast and die-struck specie in cheap metals like copper, potin and lead were reported from Adam, Kaundinyapur, Pauni, Bhokardan, Nasik, Brahmpuri (Kolhapur), Kotalingala, amongst others. Archaeological remains of the Pre-Satavahana period are well represented at two sites Adam (IAR 1990-91: 45-50; 1991-92: 63-68) and Bhon (Deotare, 2007; Sawant, 2006, Shete, 2009). Both sites have unearthed large scale structural activities such as stupas, brick wells and ring wells and residential complexes along with other antiquities.

1.2.7.2 Vidarbha under the Satavahana Rule

The rule of the Satavahana dynasty in this region is established by various archaeological evidences, most importantly coins. Coins of Chimuka Satavahana have been reported from Chandrapur district and also from Akola District. Pauni had brought to light coins of Satakarni. Two hoards assigned to the Satvahana dynasty have been reported from Brahmapuri (Chandrapur District) and Tarhala (Akola District). Tarhala hoard is of great importance as it contains 1600 potin coins with the Ujjain symbol attributed to the later rulers of the dynasty (Gautamiputra Satakarni to Vasishthiputra Pulamavi). However, the numismatic evidence does not prove the existence of direct rule.

1.2.7.3 Vidarbha under the Vakataka Rule

The Vakatakas started ruling in Vidarbha and adjoining regions at the end of the Third Century ACE and continued to rule up to the close of the Fifth Century ACE. Sites such as Arambha (IAR 1991-92: p. 73-74; Nath 1992: p. 69-74), Arni (IAR 1984-85: p. 55-56), Hamalapuri (Sali 1998: 9), Kaundinyapur (Dikshit1968), Mahurjhari (Hunter 1933: 30-35; Mohanty 2002: 45-47), Mandhal (Shastri 1978: 142-174), Mansar (IAR 1994-95: 55-57; Joshi and Sharma 2000: 127-131), Mulchera (IAR 1988-89: 49), Nagara (IAR 1979-80: 50), Paunar (Deo and Dhavalikar 1968), Pauni (Nath 1998: 9), Shirkhanda (Sali 1998: 10), Tharsa (IAR 1989- 90: 66-68), Vivekanandpur (Sali 1998: 9), Washim (Sali 1998:10-12) have yielded Vakataka cultural deposits. Apart from these, the major source of information on the Vakataka period comes is derived from copper plates and stone inscriptions.

Temple remains ascribed to the Vakatakas were unearthed at Paunar, Mandhal, Ramtek and Nagra Most Early Hstoric sites in Vidarbha were deserted by the end of the Vakataka period, leaving a gap until its reoccupation in the medieval period. Sites such as Adam, Arni, Bhon, Bhawar, Kaundinyapur, Khairwada, Mahurjhari, Mandhal, Pauni, Pachkheri, Shirkhanda and Tharsa were occupied until the Satavahana or the Vakataka periods but were deserted after that (Sawant, 2006).

During subsequent periods, Vidarbha came under the domain of the Vishnukundin dynasty: Kalachuris of Mahishmati which is attributed based on the findings of a few silver and copper coins of Kalachuri Krishnaraja from parts of Vidarbha. Later it was further dominated by the Yadavas of Devagiri which is proven by the existence of their gold coins known as Padma tankas attributed to the rulers viz., Singhana, Mahadeva and Ramachandra.

1.2.7.4 Buddhism in Vidarbha

Vidarbha is well known in the course of Buddhist history mainly due to the site of Pauni (Bhandara district). Pauni has a stupa originally raised during the time of Asoka and later conserved during the Sunga- Satavahana phase (I.A.R. 1969-70, p.20-21; 1993-94, p.73-77). Adam in Nagpur District (Nath, 1992) and Bhon in Buldana District (Deotare, *et al.* 2007) have also yielded Buddhist cultural remains in Vidarbha region.

Discoveries in the form of Buddhist sculptures or rock-cut caves are also reported (I.A.R 1994-95: 58). Inscriptions also point towards the existence of Buddhism in Vidarbha, the most prominent inscription is the one found from Deotek, a village in Chandrapur district, about 50 miles southeast of Nagpur. It yielded a large inscribed slab bearing two epigraphs). V.V. Mirashi (1968) published details of both inscriptions. One inscription dates to Emperor Asoka and the other to the Vakatakas. Mansar, Nagpur (IAR 1997-98) has been also attributed Buddhist significance with the identification of stupa and vihara at the site. However it is also identified with 'Pravarapura', the ancient capital of the Vakatakas (Joshi and Sharma 2005: 1-26). The antiquity of Mansar is still shrouded in ambiguity.

1.2.8 Vidarbha Under Colonial Rule

Vidarbha region was earlier known as *Berar,* translated as *Varhad* in Marathi. During the British Raj in India, the Nagpur division was incorporated into the Central Province due to the defeat of the Bhonsle Dynasty in the year 1818 at the Third Anglo - Maratha War (Gazetteer of India, Maharashtra State, 1978). Subsequently the last Maratha ruler died without a male heir and Nagpur division was annexed to the British Raj's Central Province in the year 1861 followed by the annexation of Amravati division, formerly known as '*Berar*' in the year 1903. Vidarbha always remained a hotbed of nationalist movement during India's struggle for freedom. This is reflected significantly during the Indian National Congress era; moreover the Gandhi ashram located at Sewagram (Wardha District) needs no introduction.

As evident from the review provided above, the Vidarbha region has witnessed a continuous series of occupations from the Lower Paleolithic to modern times. Indeed it is deemed important to understand the dynamic changes pertaining to society, culture and trade during the Megalithic period as it is the missing link between the scarcely known Chalcolithic period and the widely known Early Historic period. The continuous occupation in the Vidarbha region reflects aspects of man-land relationship which plays an important role in the geographical determinism in archaeology. The succeeding section deals with the physiographic and environmental condition of Vidarbha and its role in the development of Megalithic Culture in the region of Vidarbha.

1.3 Physiographic and Environmental Setting

The cultural development of a region, revolves around the environmental conditions of the region. Culture as an extra-somatic means of adaptation (Binford, 1968) revolves around the human adaptation to the natural factors (climate, flora, fauna and soil). This segment deals with the various environmental factors and the array of mineral resources in the Vidarbha region

1.3.1 Geological Settings

The hill ranges of the Satpura and their detached members are primarily constituted by the Archaeans, Gondwana and Deccan Trap formation (Deshpande, 1971).

The geological and the mineralogical structure in and around Nagpur were first studied and documented during the colonial period. William. T. Blanford vividly describes the core region of Vidarbha in his article, "Description of the Geology of Nagpur and its neighbourhood" published in the *Memoirs of Geological Survey of India Vol. IX Part. 2*. Voysey and Capt. Jenkins (1830) were the first to undertake geological studies in and around Nagpur. They aimed at building a fossil record; although they were ultimately unsuccessful (Asiatic Researches, XVIII). Malcolmson (1833), brought to light fossils discovered within a radius of about 100 kms around Nagpur. Subsequently Rev. Hislop and R.Hunter (1855) surveyed 2400m^2 around Nagpur. He made an attempt to understand the rock formation of the area, though he didn't classify them into any groups.

1.3.2 Drainage Pattern

Vidarbha is drained by three major rivers: the Wainganga, Wardha and the Kanhan. Wardha and Kanhan are major tributaries of the river Godavari. Purna along with other small rivers drain the northern side of the region and they are the tributaries of the river Tapi (Fig: 1.2). The major rivers and their master tributaries have carved the plateau into alternating broad-river valleys and intervening higher level interfluves, such as the Buldana, and Yavatmal plateau. Essentially the region of Vidarbha falls within the Wardha-Wainganga river system (Deshpande, 1971).

1.3.3 Topographical Features of Vidarbha

The Wardha-Wainganga valley is the lowest zone of Maharashtra with an elevation below 300m. Towards the northern fringes, the elevation is about 400 m. The south- eastern part of the confluence of Wardha and Wainganga has an elevation of about 50-100 m. and some parts of Chandrapur and Gadchiroli fall in this zone. Further towards the north, the elevation increases to 400-550 m as the Satpura ranges lie there. The highest peak 'Vairat' of the Satpura ranges has an elevation of 553 m. Beside the elevated area of the Satpura range, Vidarbha majorly forms a fertile plateau with elevation varying between 200-400 m (Deshpande, 1971).

1.3.4 Soil Formations in Vidarbha Region

The soils of Vidarbha can be sub-divided under the following types: coarse shallow black soil, medium black soil, deep black soil, clay, lateritic, reddish and yellowish brown soil. The plains are characterized by brown and grey soil (Sawant, 2012). The major part of Maharshtra, primarily the Nagpur region is covered with black soil which is commonly known as *regur*.

*Regu*r soil is basically the ultimate product of the weathering of the Deccan Trap. During the rainy season, the black soil accumulates due to the addition of water and during the summer season, it contracts and cracks. *Regur* soil is marked by a high percentage of alumina, lime and magnesia, variable amounts of phosphorous, potash and low percentage of nitrogen (Mandal, 2009 and Deshpande and Pitale, 2014) and falls within the Tschernosems.

Tschernosems is also known as 'black earth' due to the consistent presence of humified organic matter in this soil. These soils generally form in semi-arid and arid climates. Due to the incompleteness of the leaching, there is high carbonate deposition which is locally known as *kankar*. Lateritic soil is found in some parts of the Western Ghats are reddish and clayey soil type; and is rich in iron and alumina. On the other hand, the districts of Bhandara, Chandrapur and Gadchiroli have reddish soil which is produced by the alteration of granitic, gneissic and other metamorphic rock formations in this region (Deshpande, 1971). The same soil is sometimes light brown or yellow, porous and contains no soluble or free carbonates. The area here is not as fertile as the black soil zone.

1.3.5 Mineral Deposits In Vidarbha

A major part of the mineral deposits of Maharashtra is concentrated in Vidarbha. The term 'mineral deposits' include both metallic and non-metallic deposits. Some metallic ores are found naturally they are known as 'ore deposits' and there are minerals from which metals can be extracted commercially as well as indigenously, these are known as 'ore-minerals'. The Archaean era had witnessed some of the most intense mineral forming activities and the economically viable mineral deposits belong to this period. Within this era we have the Dharwar period, during which the deposits of copper, chromite, gold, graphite, iron-ores, magnesite, manganese ore, mica and talc were formed (Fig: 1.3.5.1). Vidarbha is rich in all the above mentioned minerals. The region holds an important position in the state's economy for its rich mineral deposit.

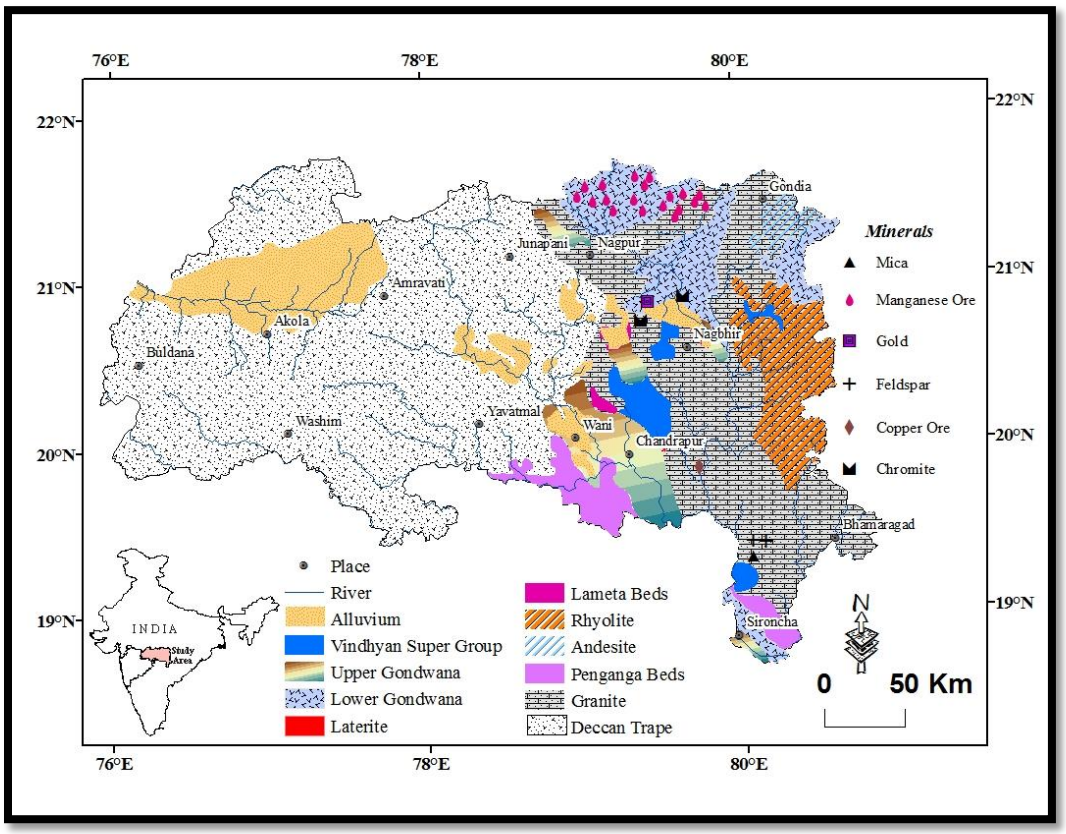

Fig. 1.3.5.1: Map of Vidarbha Showing the Major Minerals Available

It is interesting to note that coal, one of the major minerals in the world, is present only in Vidarbha in the whole of Maharashtra. Coal occurs in the Barakar formation of Damuda Group of the Gondwana super group. The coal deposits are found in Nagpur, Chandrapur and Yavatmal districts. However the richest deposit is found in Chandrapur district which is spread over 18 coalfields, the richest being Telwasa with 320.00 million tonnes in reserve. Furthermore, iron ore is also naturally found only in Chandrapur, Gadchiroli, Bhandara and Sindhudurg districts, the richest and most economic deposit *(Lohara*) is also located in the Chandrapur district. The iron ore deposit in Lohara is marked by 81.22% of Fe_2O_3 (DID, 2006). The hematite type of iron ore is not a common occurrence and is found from Gondia district from the mines of Khursipur and Ambetalao. The titaniferous magnetite ore with a vanadium inclusion forms part of the Amgaon Group (DID, 2006) (Fig: 1.3.5.2).

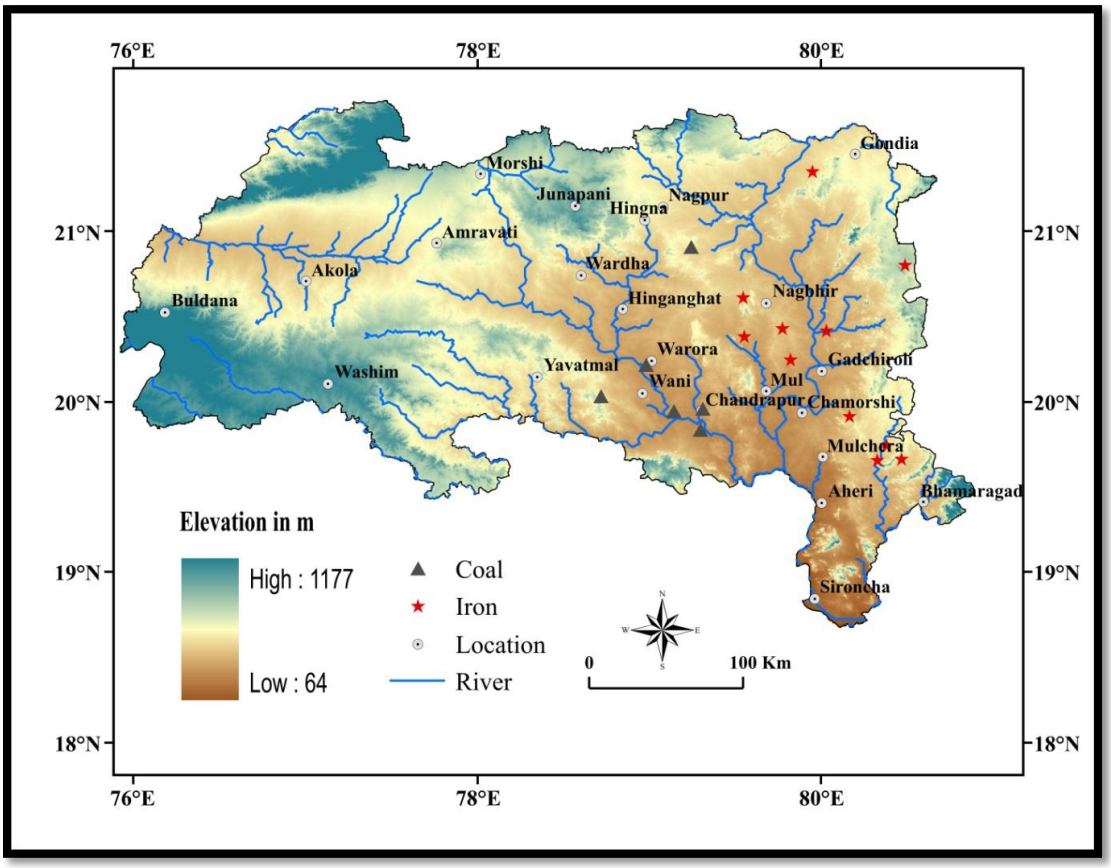

Fig. 1.3.5.2: Map Showing the Important Iron Ore and Coal Deposits

The availability of both rich iron ore deposits and economic coal deposits in the Nagpur, Chandrapur and Gadchiroli region have aided in the development of the Early Iron Age and the Megalithic Culture in the region of Vidarbha. Iron played an important role in the technological advancement of the megalithic people and the location of megalithic sites near the mineral rich areas (Fig: 1.3.5.4) and artefacts made of the same metal proves that they had inculcated a habit of utilizing the natural mineral resources for the advancement of their technology in turn bringing a change in the subsistence economy. Thus the proximity of the megalithic sites to the naturally available resources reflects the operation of geographical determinism in sites (Fig: 1.3.5.3). It is important to note that for successful utilization of the metallic mineral resources, it was necessary to have access to economic natural fuel resources. In the case of the Megalithic Culture of Vidarbha, coal was easily available and it is only this region that has coal deposits as mentioned earlier. Therefore the easily extractible and abundant mineral deposits made the Early Iron Age Megalithic inhabitants select the region of Nagpur, Chandrapur and Wardha. To understand the megalithic society it is deemed necessary to discuss the important excavated megalithic sites located in Vidarbha.

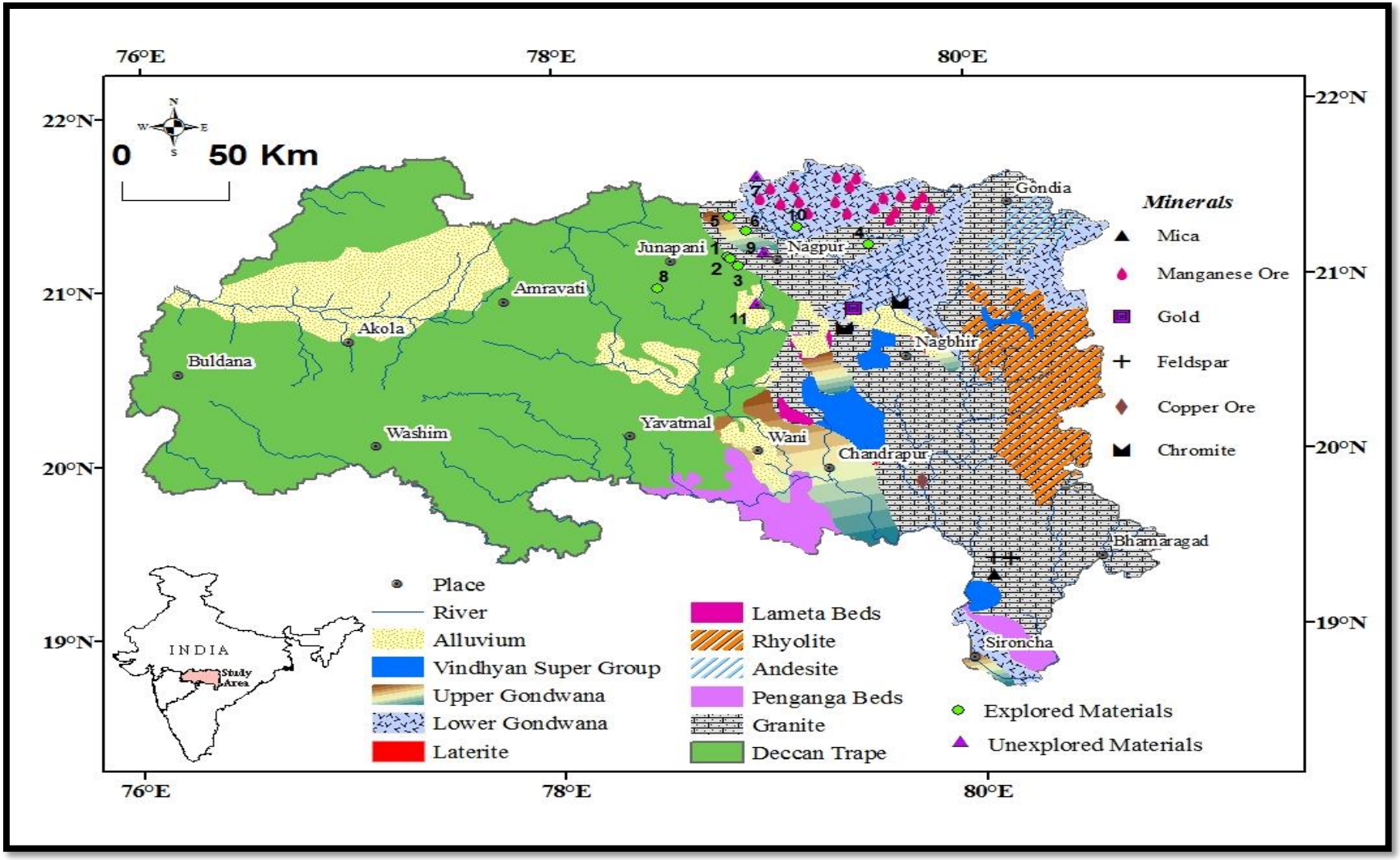

Fig. 1.3.5.3: Map Showing the Close Proximity of the Sites to the Natural Mineral Resources

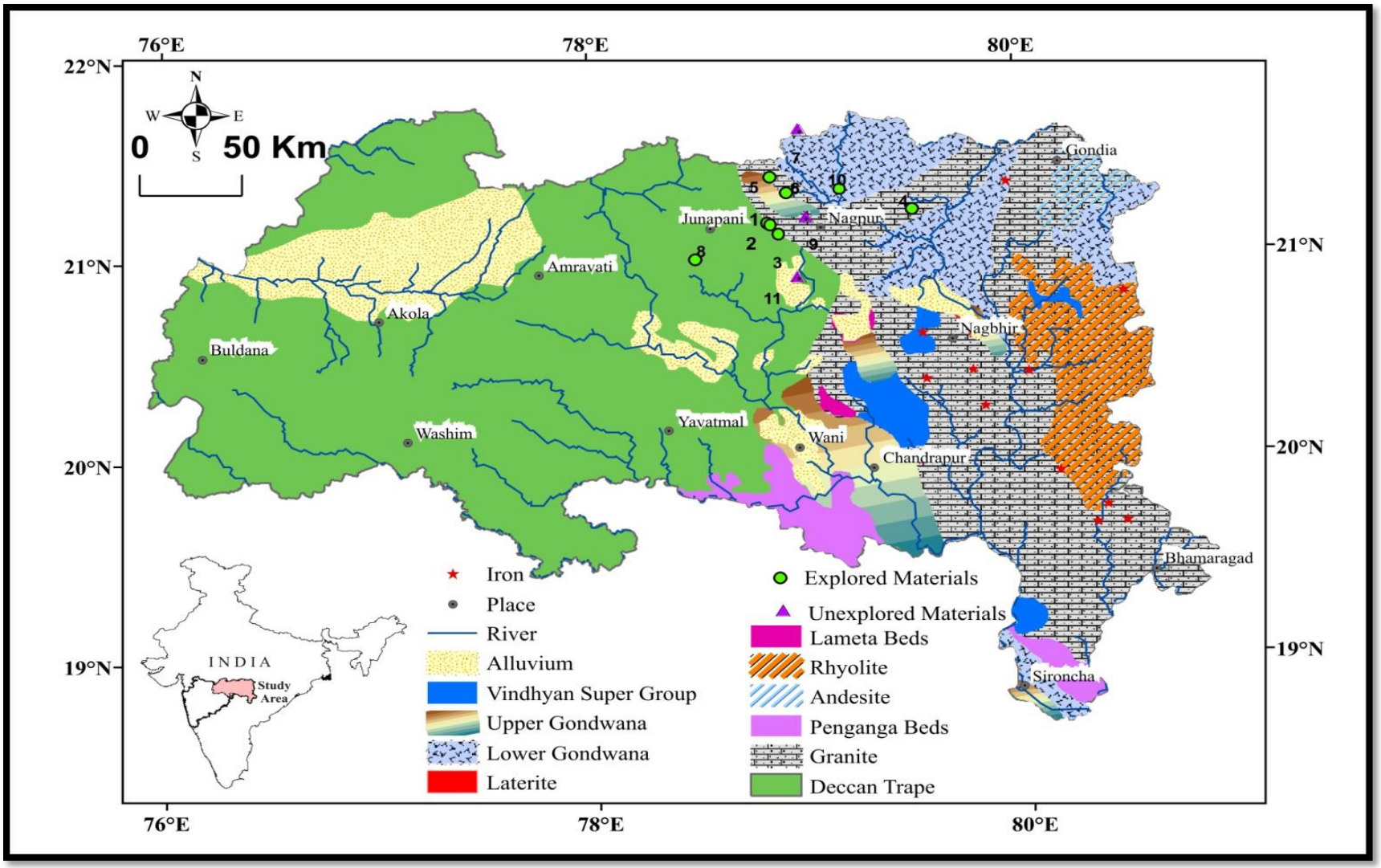

Fig. 1.3.5.4: Map Showing the Close Proximity of the Megalithic Sites to the Economic Iron Ore Deposits

1.4 Early Iron Age Megalithic Culture

Investigation into the Megalithic Culture of Vidarbha was initiated by Rev. Hislop, when he excavated the megaliths at Takalghat-Khapa Hislop, 1857: 671-672). The antiquarian activity in the sphere of Megalithic Culture was further continued by Rivett-Carnac at the site of Junapani (Rivett-Carnac 1879: 1-16). During the colonial period, the stone circles and cairns were all classified under 'barrows' as the British officers such as Col. Godfrey Pearse were well versed with the European Megaliths. During the colonial period not much were known about the architectural types within the category of megaliths and the hypothesis formed such as the builders knew the steel technique and the builders were of Scythian origin were based on just mere assumptions. However with the initiation of scientific inquiry, scholars such as Deo, Mohanty, Kellellu have finally placed the Megalithic Culture of Vidarbha within the framework of indigenous origin, however the metal technology and the question of knowledge of steeling is still shrouded in doubt although some attempts have been made to study the iron technology by scholars like Deshpande. et.al (2010) and Park and Shinde (2012).

1.4.1 Dhamna Linga (Long. 78°51'E, Lat. 21°8.30' N) DMN

The site of Dhamna Linga (DMN) is located between the villages of Peth and Dhamna in Nagpur District along the south east and south west bank of the Vena reservoir. Around 50 megalithic burials are located on a horse-shoe shaped slope and segregated into clusters. DMN was excavated for two seasons in the year 2000 and 2001 by the Department of A.I.H.C and Archaeology of R.T.M Nagpur University (Gupta and Kellellu, 2005). A total of 12 megaliths were excavated, and each revealed unique architectural styles (Fig: 1.4.1.1). Three cairn circles (Meg 1, 8 and 10) have revealed apsidal peripheral burials beyond the boundary boulder (Kellellu. et.al 2015).

The burials are extended over a large area; although all they were of secondary nature the skeletal remains were arranged with proper anatomical knowledge (Kellellu. et.al 2015). It is interesting to note that a sarcophagus as burial furniture was also noted from Dhamna Linga, which is rare in Vidarbha (Kellellu. et.al 2015). The terracotta sarcophagus is a common Megalithic feature in southern India. Oval boat-shaped sarcophagi with a covering lid were used for burying the bones of children. The intact red ware sarcophagus shown in Fig: 1.4.1.3 was

found on the south-eastern of the periphery of Megalith 19, and it is the smallest known sarcophagus in the Indian context till date (Kellellu. et.al 2015). The central pit of Megalith 19 brought to light remains of a human primary burial along with a variety of iron objects such as ploughshare, axe with cross-fastener, ladle and a copper bowl (Fig: 1.4.1.2). Copper was not a common occurrence which suggests it was mainly used for objects with exquisite purpose. An array of 124 beads of carnelian, quartz and green jasper was also found near the burial which suggests bead was a marker of status and it was a flourishing craft activity in Megalithic Vidarbha. The charred skeletal remains and the ash remnants also found from Megalith 19 still remain an enigma probably suggesting the practice of cremation pre-burial as seen in the ethnographic context of the Munda tribe of Purulia district, West Bengal (Personal exploration, 2013).

(Courtesy: Dr. Ismail Kellellu)

Fig. 1.4.1.1 : Exposed Cairn Circle at Dhamna Linga

(Courtesy: Dr. Ismail Kellellu)

Fig. 1.4.1.2: Iron Lamp along with Pottery Sherds as Burial Offering

Fig. 1.4.1.3: Terracotta Boat Shaped Sarcophagus from the Periphery of Megalith 19 (Courtesy: Archaeology Museum, Dept of A.I.H.C & Archaeology. R.T.M. Nagpur University)

1.4.2 Dhavalameti (Long. 78°51'E, Lat. 21°9.55' N)

The site of Dhavalameti (DMT) is located 12 km west of Nagpur city and a few meters off the left side of the Nagpur-Amravati Road (NH-6). A small seasonal *nala* which is the tributary of River Venna, flows about 600 m. north-west of the site. The megaliths are located within the restricted area of the Ambajhari Ordnance Factory of the Ministry of Defence. The present settlement is located on the opposite side of the road and the site was reported in 1996 and excavated in 2004 by Department of A.I.H.C and Archaeology of R.T.M. Nagpur University

The site is spread over 10 hectares and 14 intact cairns and cairn circles were identified (Fig: 1.4.2.1). Interestingly, the filling material of the burials spreads beyond the boundary circle. Due to scarcity of fund only one cairn circle was excavated using the newly developed Octagonal Method (Personal Communication: Ismail Kellellu, 2012).

The cairn circle had unique architectural features and its diameter is approximately 18 m. The outer circle was constructed using basalt boulders and which was further supported by rammed rubble, cobble and chipped stones. Within it, an inner circle, 4m in diameter was constructed using rubble, which had been properly aligned (Fig: 1.4.2.2). Two human burials were found outside the boundary of basalt boulders in the southeast and northwest quadrants (Fig: 1.4.2.3, 1.4.2.4, 1.4.2.5) (Kellellu. et.al. 2015).

(Courtesy: Dr. Ismail Kellellu)

Fig. 1.4.2.1: General Overview of Dhavalameti

(Courtesy: Dr. Ismail Kellellu)

Fig. 1.4.2.2: The Excavated Cairn Circle at Dhavalameti Showing a Double Stone Circle.

(Courtesy: Dr. Ismail Kellellu)

Fig. 1.4.2.3: Exposed Human Skeletal Remains

(Courtesy: Dr. Ismail Kellellu)

Fig. 1.4.2.4: Exposed Human Skeletal Remains along with Iron Object Offering.

(Courtesy: Dr. Ismail Kellellu)

Fig. 1.4.2.5: Broken Spike as Funerary Offering

1.4.3 Vyahad (Long. 78°53'E, Lat. 21°7'30"N)

This site of Vyahad (VHD) is situated in the Tehsil and District of Nagpur, 2 km east of NH-6 and 24 km away from Nagpur city on the Nagpur-Amravati Road. It was the ninth habitation cum burial site to be reported. The present habitation is situated on the top of the ancient megalithic settlement, located on the right bank of the River Vena and approximately100 megaliths are located on the left bank of the same river (Meshram and Kellellu, 2009) (Fig: 1.4.3.1).

Fig. 1.4.3.1: River Venna as the Dividing Boundary between Habitation and Burial

The habitational deposit mound is locally known as *killa*. The excavation at the site revealed that the mound was formed because of continuous reuse of the same area from the Early Iron Age period until the Medieval period and further continued during the British period. The earliest settlers settled on the natural alluvial soil and the excavation revealed circular and oval house plans. Floors were rammed with black soil and plastered with lime denoting the need of making durable flooring for a longer period of stay. There are multiple floor levels and the entire habitation is divided into two phases marked by the difference in wares. The trench VHD 4

yielded a 4m. thick habitational deposit with multiple floor levels and similar house plans. The continuous habitational deposits show continuous settlements with similar continuing pottery traditions (Kellellu, et.al. 2015).

The burial at VHD also projected unique architectural features. The main chamber was erected using stone slabs; it was further surrounded by double stone circles placed in such a manner that the boulders were placed in a spiral pattern with overlapping ends (Fig: 1.4.3.2) (Kellellu, et.al. 2015). This particular architecture shows similarity with the dolmenoid cists of South India (Personal Communication: Ismail Kellellu 2012). Presently the megaliths at the site are destroyed and the burial area is now occupied by a school building.

Fig 1.4.3.2: Double Stone Circle at the Site of Vyahad

Fig 1.4.3.3: Exposed Cairn Circle.

Fig. 1.4.3.4: Pottery along with Iron Objects and a Copper Bangle as Funerary Offering

Fig. 1.4.3.5: Human Skeletal Remains from the Cairn Circle

According to the excavators the megalith builders took advantage of the natural elevation. The burial pit of the exposed cairn circle (Fig. 1.4.3.3) had an array of human skeletal remains and other iron artefacts such as chisel, knives etc (Fig. 1.4.3.4 and 1.4.3.5)

1.4.4 Mahurjhari (Long. 79°30' E; Lat. 21°14'N)

This well known Megalithic and Early Historic site lies 15 kms. west of Nagpur on the Nagpur-Katol road. The site was first noticed for the Vakataka Copper Plates recovered by Hunter (1933) and is very close to Junapani. So as to understand the Megalithic culture, excavations by Nagpur University under Deo (1973) was undertaken for two seasons 1970-71 and 1971-72 and repeated in 1978-79. The stone circles were found are in four localities I, II, III and IV (Fig: 1.4.4.1, Fig: 1.4.4.2). Mahurjhari was later re-excavated by Mohanty (2002, 2002a, 2003a, 2003b, 2006) from Deccan College, Pune and a vast bead manufacturing industry was discovered and it has been studied by Mohanty (2003b) and Thakuria (2010). It has brought to light one of the major craft activity engaged in by the Early Iron Age Megalithic people of Vidarbha which is a significant marker of a sedentary lifestyle (Moorti, 1994). Maximum numbers of megaliths were excavated

at this site; therefore the available iron assemblage for this study is higher in comparison to the other sites.

Fig 1.4.4.1: General View of the Site of Mahurjhari

Fig. 1.4.4.2: Close- Up of the Megalith at Locality-I of Mahurjhari

1.4.5 Takalghat-Khapa (Long 78° 56’30 ”E, Lat. 20°54’40”N)

(Material Not Studied)

Takalghat-Khapa is one of the few Megalithic habitation cum burial sites found in Vidarbha. The habitation mound of Takalghat is located on the right bank of River Krishna and is entirely capped by the present habitation. The site was excavated by the Department of A.I.H.C and Archaeology of R.T.M Nagpur University under the tutelage of Deo (1970).

The habitational deposit revealed gradual cultural development as reflected in the cultural remains. The remains of the first settlers were meager, very few sherds of Black and Red Ware, Painted Black on Red Ware and Micaceous Red Ware were found. However, in the course of time the settlement prospered, as reflected in the cultural deposit. Habitation floors were found indicating the use of lime as a plastering agent and the quantity of Black and Red Ware increased significantly. The recovery of bones of domesticated animals indicated animal husbandry, suggesting a sedentary lifestyle.

Khapa, the Megalithic burial site is located on the left bank of River Krishna. There were several stone circles out of which nine were excavated (Fig: 1.4.5.1 and Fig: 1.4.5.2). Presently the site of Khapa is lost to posterity as the boulders have been quarried and were used as building material for the school that stands at the very site.

Fig. 1.4.5.1: Incomplete Stone Circle at Khapa

Fig. 1.4.5.2: Destruction of the Site of Khapa in Progress

1.4.6 Khairwada (Long 78° 29' E Lat 21°1' N)

Khairwada (KRD) a Megalithic habitation cum burial site is located on the right bank of River Dhan and is about 118 kms west of Nagpur. It is located in Wardha district of Vidarbha and the site was primarily identified and excavated in the year 1869 by Carey (1871).

The area covered by the site is almost 13 hectares and has approximately 1400 Megalithic burials. The site was excavated again in the year 1980-81 by a joint team of Deccan College (Pune) and State Archaeology Department of Maharashtra (Bombay)(I.A.R. 1981-82: 51-52). The Megalithic habitation mound is capped by the present Gondi settlement and the stone circles encountered were divided into two types:

(i) Those with pebble and clay within a boundary of boulders.

(ii) Those without clay filling (Fig : 1.4.6.1).

It is important to note that the sedentary mode of lifestyle of the Megalithic people was further established by the habitational floors with lime plasters, circular post holes. Agriculture food

production was further established by the finds of saddle and legged querns (I.A.R. 1981-82: 51-52).

(Courtesy: Dr. Shantanu Vaidya)

Fig. 1.4.6.1 Unexcavated Cairn Circle at the site of Khairwada

1.4.7 Bhagimohari (Long. 78°51'E, Lat. 21°24' N)

Bhagimohari (BMR) is located on the River Kolar, 45 kms north of Nagpur in Nagpur District. This site is considered to be the northern-most Megalithic site in the district. The site was excavated by a joint team of Deccan College (Pune) and State Archaeology Department of Maharashtra (Bombay).

The habitation deposit was quite thick and divisible into 9 layers. A number of floor levels were revealed each floor was made sturdy by giving a 3 layered structure. The lowest layer was black clay, this layer was covered by compact brownish clay and then it was finally plastered with lime. Bone tools were also found (Fig: 1.4.7.1) (I.A.R 1982-83: 61-62, 1983-84: 57-58, 1984-85).

In one of the stone circles (Fig: 1.4.7.2), a block of the Gondwana formation was found placed inside the circle. The Stone Circles at Bhagimohari projected certain architectural variations with the other megalithic sites. They were as follows:

(i) Construction of two square chambers with a common middle wall, using boulders, within the Stone Circle.

(ii) Smaller circle within the main Stone Circle.

(iii) Irregular circular alignment within the Stone Circle.

Fig. 1.4.7.1: General Overview at the Site of Bhagimohari

Fig. 1.4.7.2: Cairn Circle at the Site of Bhagimohari

1.4.8 Borgaon (Long. 78°55'E, Lat. 21°20' N)

The site of Borgaon (BRG) had 48 Stone Circles. It is located 42 kms north-east of Nagpur in Nagpur district. It was jointly excavated in 1980-81 by a joint team of Deccan College and State Archaeology Department of Maharashtra. This site does not contain any habitational deposit, Megalith 3 has brought to light a huge stone sarcophagus which was identified as a trough by the excavators (Fig: 1.4.8.1) (I.A.R 1980-81: 40). Presently the site has been entirely destroyed and there are no remnants of the stone circles.

Fig. 1.4.8.1: Stone Sarcophagus (??) from the Site of Borgaon.

1.4.9 Naikund (Long. 79°10'E, Lat. 21°20'N)

The famous Megalithic iron smelting site Naikund (NKD) is located about 42 kms north-east of Nagpur in Nagpur district and is spread over the banks of River Pench. It was jointly excavated for two seasons, first in 1977-78 and then in1980, by a joint team of Deccan College and the State Archaeology Department of Maharashtra. The stone circles grouped into clusters are spread over the left bank of the River (Fig: 1.4.9.1 and 1.4.9.2). Out of the seventy Megaliths, six were excavated and Megalith No 1 of Locality I was found to be constructed using triple boulder circles with rubble packing between them (Deo and Jamkhedkar, 1982).

In the habitation mound, multiple floor levels were exposed, and they were made in two courses, the first course was rammed brown compact clay, which was later plastered with lime. Lime plastering of the floors was a common activity, considered to be reflective of a sedentary lifestyle.

Part of the same area was designated as iron smelting workshop (Fig: 1.4.9.3). This activity area was identified based on the archaeological findings, such as, potsherds, slag, cinder and a smelting furnace.

Fig. 1.4.9.1: General View of Naikund

Fig. 1.4.9.2: Closer View of a Stone Circle at Naikund

(Courtesy: Archaeology Museum. Deccan College PGRI. Pune)

Fig. 1.4.9.3: Reconstructed Iron Smelting Furnace from Naikund

1.4.10 Raipur Hingna (Long. 78°58'E, Lat. 21°43' N) (Material Not Studied)

This is a purely Megalithic burial site, located 15 kms southwest of Nagpur city on the Nagpur-Hingna Road (Fig: 1.4.10.1). It was excavated for four seasons, first in 1984-85, followed by continuous excavations from 1987-90, by the Deccan College, Pune.

It is a twin locality located on both banks of the River Venna. Hingna on the right bank of the river had about 39 stone circles, which were divided into two localities (I and II) and Raipur on the left bank had about 233 Stone Circles, divided into two localities (III and IV) (Deglurkar and Lad, 1992). This is one of the richest Megalithic sites, unfortunately however, it has been extensively destroyed due to indiscriminate construction activities and stone quarrying at the site.

Fig. 1.4.10.1: Cairn Circle at the Site of Raipur Hingna

1.4.11 Junapani (Long 79° 0’ 6.03 E Lat.21°11’58.30N)

The Junapani Megalithic burial site is located 11 kms North-West of Nagpur, on the left hand side of the Nagpur-Katol Highway (Fig: 1.4.11.1 and 1.4.11.2). The site is in close proximity to the site of Mahurjhari as stated in section 1.4.4. As mentioned earlier, we have dearth of Megalithic habitation sites in the Vidarbha region, but it is probable that multiple burial areas were bordering along one habitation centre in the past. That is, the Megalithic people of Mahurjhari required greater spaces for the disposal of their dead and therefore satellite areas were occupied only for burial, while habitation took place in a restricted area.

This site was first identified and explored in 1867 and the excavated material from this site was later transported to the British Museum by Rivett- Carnac (1869). Later in 1961-62, the site was re-excavated by the Excavation Branch (Nagpur) of the Archaeological Survey of India (I.A.R 1961-62:32-34)

The area covered by the megaliths is about $1/6^{th}$ of a square kilometer, and approximately150 cairns and cairn circles are also spread across the site.

Fig. 1.4.11.1: General View of the Site Junapani

Fig.1.4.11.2: Double Stone Circle at Junapani

It is interesting to note, there are intersecting Stone Circles, possibly denoting family burials (Fig: 1.4.10.3).

Fig. 1.4.11.3: Intersecting Stone Circles (One with Double Boulder Boundary and the other Single Boulder Boundary)

Out of the 150 known burials, only 3 Megaliths were undertaken for excavation and the antiquities recovered were comparable to those recovered from the other sites.

This chapter gives an overall view of the archaeological cultural sequence present in Vidarbha with special reference to the Megalithic Culture. The megalithic sites are situated within the spatial context in order to understand the role played by the natural resources such as minerals and ores in the development of a culture.