Chapter 1: An Introduction to Prehistory

1.1 World prehistory in general: Prehistory concerns itself with the period of human existence before the availability of written records with which recorded history begins (Renfrew 2007). It is thus a study of those pre-literate societies of our earliest hunter-gatherer ancestors and the progress – technological and otherwise, as they domesticated animals, gradually mastered agriculture, and settled down in the earliest settlements, villages and towns. It follows the development of some of these settlements into centralised human societies and the emergence of the first great civilisations of the world. Prehistory also deals with smaller communities in some parts of the world that continued their hunter-gatherer lifestyles or as agro-pastoralists without developing into urban centres.

The story of this progress from the earliest hunter-gatherer lifestyle to the diversity of human activity today encompasses a vast span of time and is not uniform in different parts of the world. This chapter will deal with an overview of world prehistory in general and the prehistory of the Indian subcontinent.

It is important to note that our knowledge of prehistory – of the fact that the history of human origins goes back much further than the earliest evidences from recorded history, has been obtained in the last two hundred years. In early 1806, Sir Richard Colt Hoare excavated burial mounds and barrows in England and Ireland and was frustrated that the origins of the “tribes” that built these structures were shrouded in mystery (Renfrew 2007). Though as far back as 1774 Johann Esper – a German priest had found remains of cave bears and other extinct animals in association with human remains, it was the Frenchman Jacques Boucher de Perthes, who in 1846 through his publication of his finds of human artefacts like stone tools found in association to the remains of extinct animals, seriously considered this as evidence of the antiquity of man. The work that set the academic mood to receive this knowledge was undoubtedly Charles Darwin’s seminal works – *On the Origin of Species by Means of Natural Selection* in 1859 and *Descent of Man* in 1871 (Kennedy 2000, Renfrew 2007). The term “prehistory” was first used, in 1851, by Daniel Wilson, in his work *The Archaeology and Prehistoric Annals of Scotland*. The term was given wider coverage by Sir John Lubbock’s *Prehistoric Times*, published in 1865 (Kennedy 2000, Renfrew 2007).
1.1.1 The 3-Age system: It was the work of the Danish antiquarian Christian Jurgensen Thomsen, in charge of arranging the pre-Roman antiquities at the National Museum of Copenhagen who recognized the diversity of prehistoric artefacts and hit upon the idea of the three ages in prehistory (Kennedy 2000, Renfrew 2007). His guidebook to the National Museum published in 1836 (and translated into English in 1848), that introduced the idea of the three age system to the academic world. He had grouped the prehistoric artefacts in the possession of the museum into three groups based on the material of manufacture of these weapons and implements – which he recognized as three ages of stone, bronze and iron. He regarded these ages as a representation of chronological succession. By then, the science of stratigraphy had been established by the work of the Italian geologist Giovanni Arduino – who classified their succession into Primary, Secondary and Tertiary age groups and the British engineer William Smith, who in 1816 published Strata Identified by Organized Fossils.

The Stone Age was initially divided into an earlier period of chipped stone tools and a later period of ground or polished stone tools by John Lubbock (Lord Avebury) and he termed these Palaeolithic and Neolithic respectively, in his book Prehistoric Times, published in 1865 (Kennedy 2000).

Later, in the course of the discovery and study of several sites like Laugerie Haute, Les Eyzies, Le Moustier and La Madeleine in France by Edouard Lartet and Henry Christy in the mid-1800, it emerged that the Palaeolithic was not a single homogeneous period, but a sequence of prehistoric phases marked by faunal changes and changes in the lithic industries (Kennedy 2000, Renfrew 2007). The Stone Age was thus divided into The Upper, Middle and Lower Palaeolithic, with further sub-divisions as outlined in Table 1.1. These terms were coined to represent periods of time initially, but later came to be understood as cultures.

Stone tools smaller than the trademark Palaeoliths, known as microliths, were increasingly found in many deposits overlying Palaeolithic stone assemblages, which were ascribed to a period between the late Palaeolithic and early Neolithic by De Mortillet in 1883. This period was given the term Mesolithic (Middle Stone Age) by John Allen Brown in 1892. Brown further suggested that the Mesolithic was the transitional period from hunting-gathering to food-producing cultures of Europe.
**Table 1.1:** Showing the cultures of the Palaeolithic in relation to the periods of Glaciation

<table>
<thead>
<tr>
<th>Last Glaciation</th>
<th>Magdalenian</th>
<th>Upper Palaeolithic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solutrean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aurignacean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mousterian</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Middle Palaeolithic</td>
</tr>
<tr>
<td>Third Interglacial</td>
<td>Mousterian</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Late Acheulian</td>
<td></td>
</tr>
<tr>
<td>Third Glaciation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Interglacial</td>
<td>Early Acheulian</td>
<td>Lower Palaeolithic</td>
</tr>
<tr>
<td></td>
<td>Chellean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-Chellean</td>
<td></td>
</tr>
<tr>
<td>First Glaciation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 1.1: A rough stone tool identified as "concave scraper" from the Middle Stone Age found at Sannati, Karnataka, India during our explorations*
Even though the concepts of prehistory outlined above had been conceived and classified in the European context, many scholars believed that these periods of prehistory had universal significance and “represented necessary stages of human cultural development from savagery to civilization” (Kennedy 2000). The basis of this view was the “psychic unity of mankind”, which was the explanation for the parallel development of the same archaeological sequences in different parts of the world. The other, competing viewpoint was the “migration theory”, which had invasions of populations from the centres of invention into other areas, bringing in technological and other inputs that precipitated cultural shifts. Prehistorians who favoured this view quoted the abrupt transformations in the archaeological record to support their thesis and interpreted that as mass movements of ancient populations. The extension of prehistoric studies into the continents of Asia and Africa was made with the assumption that the cultural periods and chronologies which were already defined for European prehistoric cultures could be directly applied to the archaeological records in these continents.

Though the broad elements of the framework for looking at prehistoric cultural succession still survive in prehistoric research today, the advent of objective dating systems, more sophisticated and systematic practices in archaeological excavation and identifications of technological industries and associated cultural periods have led to a detailed understanding of schemes for different geographical regions (Kennedy 2000). Today, it is understood that the stratigraphic sequences of a Palaeolithic site in Europe need not be exactly paralleled in a site from the same period in south-east Asia. Similarly, even the broad categories of Palaeolithic, Mesolithic and Neolithic etc. are not satisfactory in many contexts. For instance, strictly speaking, there is no purely Neolithic site in any of the excavated sites in India (Rao 1978). And, since there is evidence of the use of copper and/or bronze at all excavated sites in Karnataka that are from the cultural phase when man lived a settled life with domesticated animals and practice of agriculture and the manufacture of pottery, it is common for many researchers to refer to this phase as “Neolithic-Chalcolithic”. These regional expressions of early copper-using cultures thus have names not used in Europe or elsewhere. This existence of a “Copper Age” prior to the onset of a Bronze Age is not universal in antiquity, and the early copper-using people do not share identical cultural elements (Kennedy 2000).
1.1.2 A rough chronology of world prehistory: Though establishing a relative chronology is difficult at best, we have a rough understanding of the timeline through advances in archaeology, anthropology, genetics, geology and linguistics. It is believed that the genus *Homo* evolved in Africa roughly 2.5 million years ago – i.e. 2.5 million YBP (Years Before Present) (Leakey 1994). The *Homo habilis* species that emerged were the first members of the *Homo* lineage, and is definitely known to have made and used stone tools and artefacts described as the Oldowan industry (Mithen 1996). Also, it is known that *Homo erectus* populations, which had appeared by around 1.8 million years BP, had spread out of Africa and occupied large regions of Eastern and Southeast Asia half a million years ago. *Homo erectus* continued to hold sway in East Asia till 300,000 YBP, but elsewhere in Asia and in Africa, there is fossil evidence for archaic *Homo sapiens*. This early period (from 2.5 million till around 200,000 BP) is referred to as the Lower Palaeolithic, when the handaxe – a symmetrical, pear-shaped chipped stone tool was widely prevalent in almost all parts of the world, and subsequently, with the onset of the Middle Palaeolithic, there is a change in the type of stone tools used in different parts of the prehistoric world. The Neanderthal man or *Homo neanderthalensis* appears about 150,000 BP in Europe and the Near East. Fully modern man or *Homo sapiens sapiens* appears in the period between 100,000 BP and 60,000 BP, initially in South Africa and the Near East. There is evidence of coexistence of *Homo sapiens sapiens* with Neanderthals and other archaic *Homo sapiens* in Europe and the near East, where the Neanderthals existed from approximately 300,000 BP – 30,000 BP, before going extinct. In the Near East, in this period, intentional burial of the dead in pits along with grave goods was practiced by both *Homo sapiens sapiens* and the Neanderthals. In the Indian context, the oldest fossils of the Homo lineage have been found in Tamil Nadu and have been dated to 1.5 million YBP. The oldest humanoid fossils have been dated to about 120,000 years.

The Upper Palaeolithic begins in around 40,000BP in Europe and Africa, though it is unclear whether this occurs simultaneously or maybe around 20,000 BP in Asia. The Upper Palaeolithic is marked by a lot of technological advances such as profusion in the variety of stone and bone tools and artefacts, constructing dwellings, sewing clothes with bone needles etc. This is also the earliest occurrence of art – painting of walls of cave sand dwellings, carving of human and animal figurines from stones and ivory and decorating bodies of the living and the dead with beads and pendants. The first pieces of Upper Palaeolithic art came to light in the 1830’s in the
Chaffaud Cave in France. This was followed in subsequent years by a host of discoveries of portable as well as parietal art (images painted or engraved on the walls or ceilings of caves) in various parts of the world (Lewis-Williams 2002), of which the cave-art of Lascaux, France and Altamira, Spain and several others are breathtakingly beautiful examples of the unbelievable skill of the Upper Palaeolithic artist.

The Middle Stone Age or Mesolithic is a brief period of transition between the Palaeolithic and the food-producing stage of the Neolithic in most parts of the world, and is characterised by the appearance of microliths (tiny stone artefacts, often a few centimetres in size) in the archaeological record. It is characteristically a few thousand years in duration after the last stages of the Upper Palaeolithic and ends with the advent of agriculture. The onset and duration of the Mesolithic varies widely in different parts of the world. Around 10,000 YBP, with the rising of temperatures worldwide after the end of the last Ice Age, we see the evidence of agriculture in the Near East, along with the domestication of animals (Mithen 1996). This phase, marking the onset of the Neolithic varies between 10,000BC to 3,000 or 2500BC in different parts of the world (See Table 1.2, Habib 2001). The Neolithic marked the beginning of settled life for humankind, though sections of the population still lived as nomadic or semi-nomadic hunter-gatherers or agro-pastoralists. The settlements of the Neolithic vary in nature and construction in various parts of the world and will be dealt with separately.

The Stone Age (Palaeolithic, Mesolithic and Neolithic) was followed by the Bronze Age in most parts of the world (Though, as we have seen, in southern India, there seems to have been copper-using cultures in the Neolithic, if we take it to mean the cultural phase when agriculture and settled life began) and later the Iron Age. Script or writing makes an appearance in the Bronze Age in many parts of the world and, by the end of the Iron Age, prehistory merges into recorded history in most parts of the world. Some researchers prefer the term “protohistory” to refer to those periods when literacy was available, but little used or little evidence for literacy survives (Renfrew 2007). Roman Britain or early days of literate civilizations in Mesopotamia and Egypt may be called protohistoric (Renfrew 2007), as possibly the Neolithic-Chalcolithic and the Iron Age in south India (Rao 1978).

The periods following the Iron Age is literate in most parts of the world and hence the beginning of recorded history in these regions.
Table 1.2: Chronology of the Neolithic Revolution (from Habib 2001)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000-9000 BC</td>
<td>Earliest Neolithic culture: Naturfian of Palestine and Syria</td>
</tr>
<tr>
<td>10,000-7500 BC</td>
<td>Neolithic culture, north Afghanistan: pre-ceramic</td>
</tr>
<tr>
<td>7000-5000 BC</td>
<td>Neolithic culture, Mehrgarh, Period I: pre-ceramic; barley, wheat cultivated</td>
</tr>
<tr>
<td>5365-2650 BC</td>
<td>Bagor Mesolithic, Period I: pre-ceramic</td>
</tr>
<tr>
<td>5000 BC</td>
<td>China, Vietnam, Thailand: rice domesticated</td>
</tr>
<tr>
<td>5000-4000 BC</td>
<td>Mehrgarh, Period II: hand-made ceramic, cotton cultivated</td>
</tr>
<tr>
<td>4300-3800 BC</td>
<td>Mehrgarh, Period III: copper-smelting; ‘Togau pottery’</td>
</tr>
<tr>
<td>4000 BC</td>
<td>Mehrgarh: potter’s wheel</td>
</tr>
<tr>
<td>3800-3200 BC</td>
<td>Neolithic Kechi-Beg and Hakra-ware cultures: wheel-made pottery</td>
</tr>
<tr>
<td>3385-2780 BC</td>
<td>Belan Mesolithic: hand-made ceramic</td>
</tr>
<tr>
<td>3500-1200 BC</td>
<td>Vindhyan Neolithic: mainly hand-made ceramic; rice cultivated</td>
</tr>
<tr>
<td>3000-2100 BC</td>
<td>South Indian Neolithic: mainly hand-made ceramic</td>
</tr>
<tr>
<td>3000-1900 BC</td>
<td>Swat Neolithic: ceramic; wheat, barley cultivated</td>
</tr>
<tr>
<td>2800-2500 BC</td>
<td>Northern (Kashmir) Neolithic, Phase I: pre-ceramic</td>
</tr>
<tr>
<td>2500-2000 BC</td>
<td>Northern (Kashmir) Neolithic, Phase II: hand-made ceramic; wheat, barley, lentils cultivated</td>
</tr>
<tr>
<td>2500(?)-2000 BC</td>
<td>Eastern Neolithic, Pandu Rajar Dhib, Period I: hand-made ceramic; rice cultivated</td>
</tr>
<tr>
<td>2100-1400 BC</td>
<td>Neolithic Chirand, Period I; hand-made ceramic; rice cultivated</td>
</tr>
</tbody>
</table>

1.1.3 Architecture in the prehistoric world: The earliest habitations of ancient human populations in the Palaeolithic seem to have been primarily caves and rock-shelters, though there is some evidence for shelters in camps in the open (Thapar 2002). The latter were made of branches and foliage; so much evidence would not survive. But evidence for occupation of caves and rock-shelters abound at many places in the world. The practice of decorating cave walls and ceilings with engravings or paintings is seen from the Upper Palaeolithic onwards (Mithen 1996, Lewis-Williams 2002).
The construction of dwellings for a settled village life is widely believed to have followed the advent of agriculture, though it is known now that at least at a few sites like those of the Early Natufian culture in the Levant (see Table 1.2), the world’s first settled villages preceded the establishment of a secure agricultural regime (Renfrew 2007). The culture had pit dwellings, burials, rich stone and bone industries, mobile art and numerous tools for processing food grains – though it was still dependent on foraging. So, the evidence from these sites is clear that a markedly sedentary life style preceded farming, though it was dependent upon the availability of abundant wild food resources.

The shift from the mobile life pattern of the hunter-gatherer society to a sedentary one in the earliest settled societies is not a simple shift but one with very significant consequences (Renfrew 2007). Early settled societies implied living in one place for several years at a time, if not on a permanent basis. This involves a substantial investment of labour and materials into the construction of a permanent place of residence. This adoption of the house as the permanent context of social and economic life also heralded new ways of thinking. “The adoption of the house and the village also ushers in a development of the structure of social life, the elaboration of thinking about the structure of the world and the strengthening of the links between the two.” (Wilson 1988)

The earliest villages seem to have been “egalitarian” societies, with little or no evidence for stratification of the society. The houses are more or less uniform in a village. There is evidence for collective endeavour on a considerable scale – whether for irrigation projects or for the construction of monuments, such as the substantial stone structures called megaliths in various parts of the world. The megaliths of north-western Europe, the structures termed “temples” in prehistoric Malta etc. are examples of this (Sherratt 1990, Ruggles 1999, Hoskin 2001, Renfrew 2007).

In most of the early agricultural societies, it is clear that the settlement pattern was sometimes a dispersed one of single homesteads or small groups of houses, which were built of perishable materials like timber, wattle and daub and thatch and which frequently went out of use after a few years. In this context, the erection of stone monuments – whether burials or for other purposes, seems to have provided an element of permanence that the domestic settlement itself did not offer (Renfrew 2007). This has probably led to the myth of the mutual exclusiveness of
non-domestic funerary as well as other monuments and substantial traces of domestic settlements in India (Moorti 2008) and other parts of the world (Sherratt 1990).

Domestic architecture in the Neolithic varies from the pit dwellings of Burzahom (Sharma 2000) to the timber-and-sod houses of the British Neolithic at places like Fengate and Honington (Castleden 1987) to the stone houses of Orkney and Shetland (Castleden 1987). Of the last named, the splendidly preserved site of Skara Brae is a testament to the skills of the Neolithic house builder (see Fig. 2).

![Figure 1.2: A plan of the houses at Skara Brae (Castleden 1987)](image)

The monumental architecture of various parts of the world differed in detail, but evolutionary archaeologists see monument building as an important index of social complexity. Indeed, the construction of monuments involves the expenditure of tens of thousands of work hours (Atkinson 1956, Hoyle 1977, Castleden 1987, Renfrew 2007) and the presence of monuments indicate that the societies that built them were able to spare so many work hours from the business of eking out a livelihood from farming and other methods of food procurement.

Though recent research at the excavated site of Göbekli Tepe in south-eastern Turkey seems to suggest that the earliest phase of the structure – which is interpreted as the oldest place of worship known, can be dated as far back as the Mesolithic, most of the monumental structures of the world seem to have arisen in the Neolithic. Göbekli Tepe is part of the same culture as that of the Neolithic sites of Çatalhöyük and Jericho of present-day Turkey. Among the surviving examples of early monumental architecture of the world, megalithic structures seem to be the
most prominent. Megaliths, so termed because the earliest structures of this category that were noticed were built of large stones (derived from *megathos* = large and *lithoi* = stone) are perhaps the most durable structures ever erected by prehistoric societies and large numbers of them have survived down to recent times (Sherratt 1990). They have dominated the European archaeological imagination since the sixteenth century (Sherratt 1990) and the same in the context of the Indian subcontinent since the 1800’s (Sundara 1975).

The term “megalithic culture” is a misnomer since megalithic monuments were erected at different parts of the world by different cultures (Moorti 1994). While in northern and western Europe, megaliths were erected by early farming societies in the Neolithic (Sherratt 1990), the megaliths of the Indian subcontinent are ascribed to Iron Age cultures (Sundara 1975, Moorti 1994, 2008). The Indian megaliths, which form the main subject of this investigation, will be discussed separately in this chapter and later.

A large fraction of the megaliths of the Neolithic in Europe were tombs or other mortuary structures. The earliest forms of burial monument are frequently long mounds of earth and timber, often trapezoidal in shape (Sherratt 1990). The “henge” monuments of the middle Neolithic in Britain belong to this class, as do the long barrows and mounds (Castleden 1987). Later developments include the replacement of timber by stone and the appearance of the round form. The adoption of stone as material may have been a result of desire for more permanent monuments and the preference for the large scale might have been a display of the demographic strength of a particular settlement (Sherratt 1990). The principal stone monuments include the chambered tomb, dolmens, stone circles, recumbent stone circles, stone rows and alignments and single menhirs (Ruggles 1999).

1.1.4 Stonehenge – a unique prehistoric monument: Stonehenge lies in the county of Wiltshire in central southern England, about 30 miles north of the English Channel coast about 80 miles west of London (see Fig. 1.3). It stands at a height of 330 feet above sea level, on the spread of rolling chalk downland known as Salisbury Plain (Chippindale 2004).

Stonehenge is a composite monument built over a period of more than 1500 years (Atkinson 1956, Chippindale 2004). The name “Stonehenge”, which is of Saxon origin (though the building is much older), comes from the roots “stone” and “henge”, or “hang”. It is the place of “hanging
stones”, that is, of the stone lintels of the sarsen circle and the horseshoe. Those stone lintels, and the shaping of many of the stones into trimmed rectilinear forms, are the unique features which set Stonehenge apart from the stone circles in western Britain which it otherwise resembles (Chippindale 2004).

Figure 1.3: Aerial view of Stonehenge

The uniqueness of Stonehenge is in its intricacy of layout and re-use of features from earlier phases. The earliest phase of Stonehenge was a circular earthwork – consisting of just a ditch, bank making it similar to other causewayed enclosures of the Neolithic. Archaeologists conjecture that it may have been a tribal meeting place, with two entries into the structure aligned with the rising of the midsummer sun or the setting of the midwinter sun. In later phases, there is evidence of timber settings of which only the post-holes survive and, finally, horseshoe shaped and circular arrangements of bluestones (brought in from the Preseli Mountains in Wales, 385km away) and sarsens (natural sandstone available 30km north of the site). The outermost circle is of sarsen uprights and lintels and is 100 feet in diameter. The uprights stand 13 ½ feet above the ground and about 7 feet wide and 3 ¾ feet thick. The uprights support horizontal stone
lintels, which form a continuous circle of stone, its flat top about 16 feet above the ground. Each lintel is some 10 ½ feet long, 3 ½ feet wide and 2 ¾ feet thick. The bluestones form a less regular circle about 75 feet in diameter. The size of the bluestones vary; most are 6 ½ feet or a little more high, 3 ¼ to 4 ½ feet wide, and some 2 ½ feet thick. Inside the bluestone circle stand the other sarsen structures, five “trilithons”, each consisting of two uprights under a horizontal lintel. Just within the sarsen horseshoe is a horseshoe of upright bluestones without lintels, just as there is a bluestone circle within the sarsen circle. Altogether, the monument consisted of about 162 stone blocks.

The alignment of the main axis of the structure to the rising of the midsummer sun and setting of the midwinter sun is well known (Heggie 1981, Ruggles 1999). There are many stone circles in the prehistoric Britain, but none have the complexity of structure that Stonehenge has — the horizontal lintels, the mortise and tenon joints of the uprights with the lintels and the tongue and groove joints of the lintels with each other, the deliberate use of two different materials (sarsen and bluestone) in a symbology that is lost today and the evolutionary nature of the site over 15 centuries all make this monument unique. The exact purpose for which the monument was built is still not resolved satisfactorily, though it is known with some certainty that Stonehenge was probably a “zone of the dead”, with many burials nearby and that the habitations of the people who built it was at the nearby causewayed enclosure of Durrington Walls, which was probably the “zone of the living”. The two were connected by the Avon River, from which a processional (?) avenue led to the monument in prehistoric times.

The exact meaning of this monument to the people who built it may never be understood, despite the attentions of researchers for a protracted period of time. The enigma of the structure is probably why it has become symbolic of all prehistoric monuments to the lay public.

1.2 Indian Prehistory — a brief overview: The Indian subcontinent has been an area for archaeological research for over 200 years. In spite of a few earlier discoveries, it is the discovery of a hand-axe belonging to the lower Palaeolithic stage in a gravel pit at Pallavaram near Madras, by Robert Bruce Foote — a geologist of the Geological Survey of India on 30 May 1863 that can arguably be called the most important milestone in the study of Indian prehistory (Kennedy 2000). This discovery inspired geologists working in other parts of India, and soon they were reporting Palaeolithic and other types of prehistoric tools and their contexts from those
areas. Foote himself went on making discoveries in Andhra, Tamil Nadu, Karnataka and Gujarat. His collection is today housed at the Government Museum at Chennai.

Since the days of Foote, a wide range of studies have been carried out on Indian prehistory. “We have so far probed practically all parts of India and we can now establish our own identity of prehistoric man and environment in relation to similar evidences in other countries.” (Joshi 2004) On the basis of all these studies, we can reconstruct a reliable, although patchy, account of the history of human habitation on the subcontinent.

1.2.1 The Phases of Prehistoric Human Occupation in India: The earliest humans (Homo habilis or Homo erectus) appeared in the Salt Range (Pakistan) and Siwaliks (India) about two million years ago, just before the beginning of the geological epoch of Pleistocene (Habib 2001). The discovery of a true hominid fossil at Hathnora in the Narmada Valley by Arun Sonakia of the Geological Survey of India in 1982 was the first hominid fossil find in India (Chakrabarti 1999). This specimen, believed to be the fossilised skull of a male hominid, dates from the Middle Pleistocene and belongs to the Homo erectus variety of hominid fossils. There is evidence for tools and fossils from the early or pre-middle Pleistocene (730,000 to 130,000 years ago) from various parts of India like the Siwalik Hills. Over the years, evidence has accumulated for human occupation during the lower, middle and upper Palaeolithic. Where clear stratigraphic profiles are available, a clear evolution of the lithic industry undergoing transformations from the middle to upper Palaeolithic, are noticeable.

A patchy chronology has also been arrived at using various dating techniques. Though most methods are based on the decay of radio-isotopes, other methods like thermoluminiscence (TL), Electron Spin resonance (ESR), magnetic reversals and a method based on racemization of the amino acid isoleucine have been employed to date fossils, tools and the strata in which they were found.

Palaeolithic sites in general date from before 30,000 to about 10,000BC (Thapar 2002). Evidence is usually in the form of stone tools – hand-sized and flaked-off large pebbles, though a skull found in the Narmada Valley adds to our understanding of Palaeolithic Man in India. There is evidence at a few sites for attempts to domesticate animals and the manufacture of crude, hand-made pottery. There is very little evidence of expression of their world-views and belief-systems,
though a few rock-paintings at Bhimbetka – more well-known as a Mesolithic site belong to this period.

A region-wise description of the Indian Lower, Middle and Upper Palaeolithic is given below (Chakrabarti 1999).

**North-west:** The Sanghao cave sequence, which dates from the Upper Palaeolithic, yields dates that show an even spread between 41,825 BC and 20,660 BC. At the sites of Jalapur and Dina in the Potwar plateau, the Lower Palaeolithic has been dated at 600,000 – 400,000 BP, whereas a minimum date of 45,000 BP has been estimated for the Upper Palaeolithic at Riwat in the same region.

**Western Rajasthan:** Data from Didwana places the Lower Palaeolithic at more than 390,000 BP, the Middle Palaeolithic at 150,000 BP and the Upper Palaeolithic at 26,210 BP.

**Saurashtra (Gujarat):** Dates come from the Hiran valley stratigraphic profile: the Lower Palaeolithic – roughly between 190,000 and 69,000 BP, the Middle Palaeolithic – 56,800 BP.

**Madhya Pradesh:** The Son Valley: Lower Palaeolithic – more than 103,800 BP and the Upper Palaeolithic – between 10,000 and 12,000 BP. The Narmada and Chambal systems: upper Palaeolithic 36,550 BP (Chandrasal), more than 31000 BP (Nagda), 41,900 BP (Mehtakheri).

**Maharashtra:** The Lower Palaeolithic for Nevasa is estimated to be more than 350,000 BP and the earliest dates for the Upper Palaeolithic for the region are 27,000-25,000 BP.

**Karnataka:** At Yedurwadi in the upper Krishna Valley, the lower Palaeolithic is earlier than 350,000 BP. Tegghalli in the Hunsgi-Baichbal section has two lower Palaeolithic dates – more than 350,000 BP and 287,731 BP, whereas Sadab in the same area gives 290,405 BP.

**Andhra:** Only Upper Palaeolithic dates are available from the Kurnool caves. TL dates show 17,390 BP while ESR techniques give 16,686 BP.

**Uttar Pradesh:** Only Upper Palaeolithic dates are available from Belan valley – with earliest date being 25,000 BP and last date around 9,000 BC.
As can be seen from the data presented above, a fairly comprehensive chronology of the homo lineage in the subcontinent has been obtained in archaeological research. Comparatively, the number of early Mesolithic dates available for India is woefully limited and confined to a handful of sites. These, which range from Bhimbetka in Madhya Pradesh to Bagor in Rajasthan and Sarai Nahar Rai in Uttar Pradesh, yield dates for the Indian Mesolithic between 4480 BC and 8400 BC. The famous painted rock-shelter complex of Bhimbetka belongs to this period of occupation. Sites of the Mesolithic show the use of microliths as stone tools; these being small (less than 5cm) tools like flakes, blades, burins, points, scrapers, crescents etc. This technology allowed for hunting animals from a distance (using bows and arrows) and utilised other types of stones like chert, agate, quartz and chalcedony (Thapar 2002). It is surmised that the new technology induced a change in living patterns and eventually resulted in a tendency to settle for longer periods, paving the way for the settled life of the Neolithic – with its agriculture and domestic animals.

An important phase in Indian Prehistory is the Indus or, more appropriately, Harappan civilization, representing the first urbanisation in the Indian context. This Bronze Age Civilization, more than 1050 sites of which are known today, covered an area of more than 100,000 square km (Possehl 2002) and includes cities, villages, craft centres, river stations, camp sites, fortified palaces and ports (Ratnagar 2001). The outermost site of this civilization is Shortughai in north-eastern Afghanistan, with a site count in 1984 showing about 138 classic Indus civilisation sites in Uttar Pradesh, Haryana, Punjab and Rajasthan and a site count for Gujarat showing 101 classic Harappan sites. Mohenjodaro, Harappa, Dholavira and Kot Diji are some of the important sites of this civilisation. This civilisation can be placed as existing between 2800 BC and 1300 BC, though the earliest occupation of some of the sites date as far back as 3300BC (Ratnagar 2001). Some features that make the Harappan Civilisation unique for its times is the fact that it was spread over an immense geographic area with several urban centres, had baked-brick buildings and well-developed architectural skills, had a standardized weight system and had long-distance trade with other contemporary civilizations (Ratnagar 2001).

During this same period, the Neolithic-Chalcolithic was extant in other parts of the subcontinent (Allchin and Allchin 1996). Neolithic sites occur in different parts of the Indian subcontinent.
Notable among these are Galighai in the Swat Valley, Darai Khola further to the south, and in the loess (karewa) plateau of the Kashmir Valley where there were pit dwellings; in Chirand, Bihar and in sites in the Belan Valley of Uttar Pradesh – with sites such as Chopani Mando and Koldihva; eastwards to Pandu Rajar Dhibi and further to Daojali Hading and Sarutaru; and in a cluster of sites spreading out from the Raichur doab and the Godavari and Krishna Valleys in the peninsula at Utnur, Piklihal, Maski, Tekkalakota, Brahmagiri, Hallur, Paiyampalli and T. Narsipur (Thapar 2002).

As seen earlier, the onset of the Neolithic is different in different parts of the world and in India (see Table 1.2 above). Mehrgarh, near Quetta in Baluchistan, is one of the earliest Neolithic sites on the Indian subcontinent, with an origin dated to c. 7000BC and being one of the precursor sites to the Harappan civilisation. The existence of an urban culture in north-western India did not envelop the other contemporary pre-urban societies. The Neolithic sites of Burzahom and Gurfkral in Kashmir that date to nearly 3000BC seems to have had links to the Harappan Civilisation, evidenced by the finding of carnelian beads of Harappan origin and a pot with a horned “deity” of Kot-Dijian (Kot Diji is a type site for the pre-urban Harappan civilisation) design at Burzahom; but these are seen as evidence for visits by the Harappans in search of mineral wealth to sustain their metal-making requirements (Ratnagar 2001, Thapar 2002).

In southern (peninsular) India, a summary chronology for the three phases of the Southern Neolithic is as follows: Phase III: 1600-1000 BC; Phase II: 2000-1600 BC; Phase I: 2500-2000 BC (Ehrich 1992). The Neolithic is when man is believed to have lived a settled life, domesticating animals, practicing agriculture and making pottery. In south India, especially in Karnataka, there is evidence for the use of metal – copper and bronze in all excavated sites, thus prompting the use of the term Neolithic-Chalcolithic for this period (Rao 1978), as mentioned earlier. The Neolithic Revolution, as Gordon Childe termed the change in life-pattern due to agriculture, “was not a sudden, radical change, and some activities of the earlier age had anticipated these developments” (Thapar 2002). The part of south India where this phase of “new patterns of subsistence” first developed is part of the Deccan plateau, with a landscape of vast plains of black cotton soil from which granite hills rise up (Allchin and Allchin 1996). Unique to these early Neolithic settlements are the features called ashmounds, which will be discussed in detail in a later section.
After this phase came the emergence of the Megalithic Complex of South India, which represents one of the most perplexing problems in South Asian archaeology. Continuity from the Neolithic to the Megalithic period is seen from the ceramics, especially the White-painted Black-and-Red-Ware (Ehrich 1992). The use of iron coincides with this cultural period and forms and adjunct of Megalithic culture (Moorti 1994, Moorti 2008). There is, then, considerable evidence for continuity between the Neolithic and the Iron Age in the southern reaches of the peninsula, also suggesting that the causes for transition is within south India and not across the seas (Ehrich 1992). Evidence from recent research also points to the possibility that the practice of erecting megaliths could have begun as early as the middle Neolithic (Morrison 2005, Bauer, Johansen and Bauer 2007). This will be discussed in detail later.

The current understanding of the chronology of prehistoric south India is summed up in Table 1.3 (Bauer, Johansen and Bauer 2007).

Table 1.3: Summary of the south Indian prehistoric from the Neolithic (Bauer, Johansen and Bauer 2007)

<table>
<thead>
<tr>
<th>South Indian Neolithic</th>
<th>3000 – 1200BC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Age</td>
<td>1200 – 500BC</td>
</tr>
<tr>
<td>Early Historic</td>
<td>500BC – 500AD</td>
</tr>
</tbody>
</table>

1.2.2 Architecture in prehistoric India: In the early hunter-gatherer societies of the Palaeolithic and the Mesolithic, habitations were mostly in caves and rock shelters like at Bhimbetka in Madhya Pradesh or Sanghao cave in north-west Pakistan or Kurnool in Andhra Pradesh (Allchin and Allchin 1996, Thapar 2002). There is lesser evidence for habitations in camps in the open, since these were built of perishable material like timber and foliage. As mentioned earlier, many of the rock shelters inhabited especially during Mesolithic and later times have been decorated with rock art. At sites like Bhimbetka, where a few rock art panels date back to the Palaeolithic and occupation as well as the tradition of rock art continued well into the Early Historic period (Thapar 2002), it is possible to see a record of lifestyles as seen through the eye of artists of those periods – the earliest scenes depict the hunting of animals while the latest depict scenes of elephants and horses in processions, battles etc.
There are instances of intentional extended burials with mostly east-west orientations for the bodies during the Mesolithic, occasionally within the habitation area, with the interment of grave-goods such as microliths, shells, pendants etc. perhaps pointing towards an idea of after-life (Allchin and Allchin 1996, Thapar 2002).

The settlements of the Neolithic had a variety of dwelling types. The earliest phase of Neolithic Burzahom (before c. 2920BC) had what appear to be pit dwellings, with post-holes around the perimeter on the surface indicating conical thatch roofs over posts (see Fig.1.4). The floor and walls of the pits were often mud-plastered and the pits are usually narrow at the top and widen towards the base.

Later periods of the Neolithic at Burzahom left traces of circular as well as rectangular houses of mud and rubble or mud-brick, sometimes with mud plaster (Allchin and Allchin 1996, Sharma 2000). Burzahom and a few other Neolithic sites in Kashmir, like Gurfkral, have large menhirs associated with a later megalithic phase, which has been interpreted as due to the arrival of “megalithic people” at the site, though the antiquities recovered from this megalithic phase are seen to be similar to those of the preceding Neolithic (Sharma 2000). This has been in turn
interpreted as proof that the Megalithic newcomers co-existed with the Neolithic occupants of the site, who continued their traditions and culture and that the two cultures “got assimilated in each other in course of time.” The Megalithic phase in Kashmir seems unconnected to that in peninsular India and also might have occurred earlier (Sharma 2000). There are instances of burials with domestic dogs interred with their masters at Burzahom.

Houses in other Neolithic/Chalcolithic sites in the subcontinent, such as Ahar near Udaipur, Navdatoli on the banks of the Narbada near Maheshwar show traces of houses either oblong or round in plan, with walls of stone and mud or mud brick and possibly wattle and daub. Chalcolithic settlements in Maharashtra, such as Nevasa, Daimabad, Chandoli etc. had rectangular houses with wooden frames and wattle and daub infill or circular shallow pits with post-holes around. They had cooking hearths and storage areas and shallow hollowed bases for standing pots (Allchin and Allchin 1996). Extended burials were characteristic of the early phase with multiple urns, often mouth-to-mouth holding selected bones or skeletal remains of children being seen during the course of the second millennium BC.

The early phase of the Neolithic of southern India starting about 3000BC is associated with the ashmound sites like Kupgal and Utnur in Andhra Pradesh and Piklihal in Karnataka. The ashmounds may have been cattle pens used for capturing wild cattle and/or herding of domestic cattle thereafter, with periodic firing for hygiene or ritual purposes (Allchin and Allchin 1996) but their role as monumental structures in those early societies are also conjectured (Johansen, 2004, Bauer, Johansen and Bauer 2007). This phase was followed by one of settlements of a more permanent nature on the slopes and tops of granite hills, lasting from c. 2100BC to c. 1700BC. These settlements consisted of circular hutments of wattle and daub on wooden frames, with earthen floors. The next phase, which lasted till the Iron Age, is characterised by developments similar to the Chalcolithic in Maharashtra, with circular huts utilizing larger boulders as building material. Burials were extended inhumations, with urn burials similar to Maharashtra for infants. All burials were within habitation areas.

The ashmounds of the south Indian Neolithic are an interesting feature, the exact nature of which is still debated. They are deliberately created mounded features formed by heaping and burning accumulations of cattle-dung. These structures, which vary in size from 28 m2 to 4951m2, are confined to the south Deccan-north Dharwad region (Johansen 2004). More than a hundred
ashmound sites are known, though only a few have been subjected to archaeological examination. Though a variety of colourful local legends try to explain the ashmounds through mythical associations, archaeologists have long believed that they arose out of either functional necessity to burn accumulations of cattle-dung to prevent the proliferation of vermin associated with animal faecal matter or, more likely, episodic ritual burning of dung (Johansen 2004, Boivin et al 2008).

![Figure 1.5: A view of the ashmound at Kudatini (Boivin et al, 2008)](image)

Ashmounds are obviously products of a strong pastoral culture, given the large accumulations of dung that went into their creation. Recently they have been recognised as important monumental spaces within the cultural landscape of south India’s Neolithic agro-pastoralist inhabitants. Johansen (2004) has demonstrated that they are examples of monumental architecture, “capable of conveying a range of socio-symbolic meaning in a clear and legible manner.” He has argued using the four visual dimensions of perception, viz. clarity of form, contrast with background, prominence and sufficiency of mass to emphasize presence, to make a case that the ashmounds were deliberately built monumental structures of significance in the social landscape of the Neolithic cultures. Earlier studies by Paddayya (1991) which establish the location of ashmounds at the centres of Neolithic and even post-Neolithic scatters seem to confirm the role of these structures as monuments of importance. It is tempting, though probably imprudent, to draw parallels to the early “henge” monuments of the British Neolithic such as the earliest phase of Stonehenge, which were circular enclosures bounded by mounded structures of earth that served as communal meeting places (Osborne 1995) or ceremonial tribal centres (Castleden 1987).
There is evidence that, despite the significant changes in social organization, economy and landscape production with the transition from the Neolithic to the Iron Age (Moorti 1994, 2004, Brubaker 2001), many ashmounds continued to be important monumental places involved in ritual activities in the Iron Age cultural landscape (Johansen 2004). There is a large amount of evidence from megalithic sites of ashmounds being occupied by megalithic cultures and incorporated into the scheme of megalithic monument complexes as well as the ash from these structures being used in megalithic mortuary practices.

One of the best examples of association with the later megalithic structures with ashmounds is described by Meadows-Taylor (1941). He describes a massive megalithic structure erected on an ashmound, about 20m in diameter, which was faced with and surrounded by eight perimeters of stones and surfaced with a layer of soil with a stone circle megalith on the top surface. Paddayya and Allchin also noticed similar construction of megaliths atop ashmounds in nearby regions. There are also the rare typology of “ash circle graves” of the Iron Age found at sites like Rajan Koluru, Chik Benakal (see Fig. 1.6), Piklihal and Lingsugur, where a circular surface layer of dung-ash covers both stone circle and dolmen type of megalith. In all these cases, there are
ashmounds existing in the vicinity and it is probable that ash from these mounds might have been used in the construction of the megaliths.

1.3 The megaliths of the Indian subcontinent: Megaliths have fascinated the lay public and the archaeologist and antiquarian alike for ages because of their “curious and bold appearance on the surface” of the earth (Sundara 1975). Megalithism seems to be a “world phenomenon” – their occurrence from the shores of England to that of Japan unquestionably catches one’s imagination (Moorti 2008). Almost throughout the Old World, these ancient stone structures have been noticed and various theories have been propounded to account for their origin and spread. However, Moorti (2008) cautions that “it may be safer to outline the distribution of megalithic monuments but forming opinions on their spread is nothing less than walking on a hotbed of controversies.”

The European megaliths are considered as earliest in the chronological sequence. Traditional views derived the whole megalithic complex of Europe from the East Mediterranean which trace the spread of the custom by a seafaring people moving northward, through Spain, up the coast of Western Europe and into Scandinavia. This custom is believed to have been long in prevalence – from Neolithic to the Bronze Age (i.e. from c. 5000 to 2000 BC) and its continuation even in the Iron Age. A majority of European archaeologists today believe that the development of “megalithism” was indigenous (Sherratt 1990), though probably having different independent centres. However, many of them tend to agree with Mackie’s version of “modified diffusionism” in the diffusion of ideas and think that it occurred along the seaboard from the Atlantic Coast toward the interior.

However, this has been seriously challenged by the recent genetic data which suggests that the Homo sapiens arrived into the subcontinent along the sea about 30,000 years ago and then spread out of the Indus region where they met other groups of Homo sapiens coming via central Asia and Mesopotamia. If this scenario is confirmed with further data, it is possible that that roots of human culture in India may be older than that in Europe.

In South Asia, parallels have been drawn from south Russian/Caucasian tombs like the long barrow, port-holed cists of Tepe Sialk IV (in Iran), sarcophagus tombs of Philistia (located along the southern coast of Palestine), the rock-cut caves of Kunama in north Ethiopia, cists and stone
circles of Makran coast which have been taken either as the areas of inspiration or wherefrom migration of people took place having this “megalithic” trait – i.e. the cultural practice of erecting megaliths. Notwithstanding the chronological difficulties, some of the above-mentioned regions are thought to be the probable areas wherefrom the “megalithic” custom spread. Lasting for over 1000 years (from c. 1500 BC to the early centuries of the Christian Era) the majority of the megalithic burials is associated with the Iron Age communities of South Asia.

On the Indian subcontinent, the area between the Vidarbha region of Maharashtra and the tip of the southern peninsula constitutes the major zone of the burial style denoted by the various types of megaliths (Chakrabarti 1999, Brubaker 2001). Till recently, megaliths were supposed – quite wrongly – to have formed an independent cultural entity in this region. However, it is now clear, especially after the excavations of sites like Watgal in Karnataka and Bhawar in Vidarbha, that it is nothing more than a burial style which emerged in the context of the Neolithic-Chalcolithic of its distribution area and formed part of its cultural milieu for a long time. Generally, it is associated with iron but there is also a possibility of its beginning in the pre-iron stage, a conjecture which is now being taken very seriously after Morrison (2005) has re-analysed carbon samples from Wheeler’s excavation of Brahmagiri in the 1940’s and suggested that the construction of megaliths may have started in the middle Neolithic.

1.3.1 The megaliths of south India: It is well-known that in India, the Deccan or Peninsular India contains a very large number of megalithic structures – since the first reports of “Pandu Coolies” in Kerala by Babington (1823). In the decades that followed, hundreds of megalithic sites have been discovered in southern India. Several of them have been excavated, studied and classified; among them the most celebrated study being that of Brahmagiri. Brahmagiri has been intensively explored by M. H. Krishna in 1940 (Krishna 1942, Ghosh 1989). Later on R. E. M. Wheeler excavated the site on behalf of the Archaeological Survey of India in 1947 (Wheeler 1947, Ghosh 1989). Since those days, studies of Indian megaliths have come along way and a lot of these sites have been systematically studied, though megaliths continue to be one of the most perplexing problems in South Asian archaeology (Ehrich 1992).

The etymology of the word “megalith” comes from the words “megathos” – referring to the scale and “lithoi” – referring to the material. Thus, megalith literally means “built of large stones”. This terminology arose because the earliest monuments belonging to this category to be noticed
were the ones with the most impressive surface markers. As is known today, not all the monuments that are today categorized as “megaliths” are built of large stones! The usage of the term “megalithic”, however, is justified because of its antiquity and continued popular use. The term denotes in the present context a socio-religious expression of burying the deceased in a grave (which may or may not have a lithic appendage) accompanied by certain specific cultural traits of the period under reference (Moorti 2008, Moorti 1994).

According to current understanding, megaliths may be defined as a class of features constructed of locally available stone and, in some cases, earth, including excavations in soft rock for sepulchral, memorial and other less understood purposes. Their form ranges from simple cobble-boulder- and stone block-filled crevices and other natural features on granite outcrops as at Hire Benakal (Fig. 1.7) to elaborately conceived and executed dolmens (Fig. 1.8), underground cists, boulder circles, menhirs, alignments and some other forms. The form, architecture and classification of megaliths of the Indian subcontinent will be discussed in a later chapter.

Figure 1.7: A "rock-shelter chamber" megalith at Hire Benakal
A large majority of these monuments is funerary in nature. However, the funerary aspect of this tradition is not entirely a new feature of the Iron Age. The antiquity of burial practice in India dates back to the Mesolithic period and marked burials begin in the Neolithic (Agrawal). Though evidence for an antecedent stage of “megalithism” is found in the pre-Iron Age context, this tradition became very popular in the Iron Age and continued to survive into the Early Historic and even later periods. Also, several prominent megalithic typologies such as stone alignments and avenues are not sepulchral in nature. In fact, while discussing the well-known stone alignments at Vibhutihalli, Sundara (1975) even mentions that they may not belong to the south Indian megalithic cultural complex and that the chronology of monuments such as these is uncertain. He ascribes their inclusion as a megalithic category to the proximity to sites with cairn stone circles etc.

1.3.2 The distribution of megaliths in India: Though a few megalithic sites have been reported from North India, (e.g. Burzahom – see Fig.1.9, Gurfkral in Kashmir; Gagrigol in Kumaon area), by far the large majority of megaliths are found in the southern part of the country (Brubaker 2001). The various megalithic types encountered are stone circles, dolmens, dolmenoid cists and cist burials, pit burials etc., apart from menhirs, stone alignments and avenues, as well as rock-
cut chambers and the unique topikals and kudaikals of Kerala. In fact, in spite of this apparently bewildering variety of typologies one finds distributed all over the subcontinent, they can be classified into a few broad categories (discussed in detail later).

There seems to be a lot of similarity in the megalith types separated by large geographical distances; e. g. the dolmens and dolmenoid cists of Hire Benkal in Karnataka, the cists of Wheeler’s Brahmagiri excavations and the dolmenoid cists of Chagatur in Andhra Pradesh are all remarkably similar in planning and execution, differing only in their positioning above the ground, partially or fully underground. Similarly, one finds stone circles and cairn circles laid out in identical manner at sites in Tamil Nadu and Karnataka. This will be discussed in detail in the chapter discussing megalithic architecture. There also seems to be evidence for distinct megalithic traits in different geographical zones within a broad region, with overlap in the contact area between zones (Rajan 1998). Urn burials were popular in the earlier Neolithic-Chalcolithic period and the prevalence of the urn burial marked by stone circles and suchlike on the surface may indicate assimilation of megalithic traits by the indigenous people.
In certain regions of South India, several types of megaliths are encountered. In the Palani hills, one can find dolmens, cists and urn burials (Rajan 2005, Anglade and Newton 1928). The curious non-sepulchral (apparently) megalith form called stone alignment is commonly found abundantly in the present day states of Andhra Pradesh and north-western Karnataka (Allchin 1956 and Paddayya 1995). Stone alignment sites are supposed to be found only in the Shorapur and Raichur Doabs in Karnataka (Sundara 1975), though in the course of the present studies, we will show that that a few of the menhir sites encountered in coastal Karnataka are in fact alignment or avenue sites. Menhirs are found virtually all over the subcontinent – like Maski (Thapar 1957), Managondenahalli, Nilaskal (Sundara 1975) (Fig. 1.10) and other places in Karnataka, several sites in Andhra Pradesh, Tirukkoyilur in Tamil Nadu (Rajan 1998), Anapara and other places in Kerala (Moorti 2008, Mathpal 1998) etc.

![Figure 1.10: A menhir at Nilaskal, Karnataka](image)

Endemism is also encountered while studying the distribution of the various typologies. For instance, cairn circles and stone circles dominate the Vidarbha region of Maharashtra (Mohanty 2005). Leshnik (1972) asserts that urn burials are common in the south-east along the Madras seaboard and the caves (catacomb tombs), today called rock-cut burials are restricted to the
The uniquely endemic Kudaikals and Topikals of Kerala are well known (Mathpal 1998).

1.3.3 Chronology of the Indian megaliths: A crucial aspect in building up a coherent picture of any archaeological culture period is a substantial dating base. As stated earlier, the chronological sequencing of the Megalithic Complex of South India is far from satisfactory, though radiocarbon dating has given us a broad picture of the period with which we are concerned (Moorti 2008, Ehrich 1992). This becomes apparent when one considers the absolute dates available for the known megalithic sites. For a total in excess of 2000 known megalithic sites, absolute dates are available only for about 30 sites! On the basis of available data, the dates for the following geographical regions are as follows:

Gurfkral, Kashmir valley (c. 1888-1671 BC), Gagrigol, Kumaon area (c. 2666-2562 BC), Mirzapur area, Vindhyan region (c. 1300 BC), Rayalaseema plateau, Kalyandurg area (c. 1880-1595 BC), Upper Tungabhadra valley, Davanagere area (c. 1440-930 BC), Cudappah basin, Tadpati area (c. 1375-1230 BC), Upper Tungabhadra valley, Hirekerur area (c. 1385-835 BC), Tambraparani plain, Palayankottai area (c. 905-780 BC), Nagpur plain, Nagpur area (c. 800-405 BC), Javadi Hills, Vellore area (c. 425-155 BC), Baramahal, Tiruputtur area (c. 805-25 BC), Upper Cauvery valley (c. 225 BC), Krishna-Tungabhadra doab, Kurnool area (c. 1675 BC-AD 35), Warangal plateau (c. 185 BC-AD 35), Upper Krishna valley (c. 160 BC-AD 70), Kongunad upland, Tiruppur area (c. 300 BC-AD 100) (Moorti 2008).

It was cautiously put forward on the basis of the available dates that this culture existed from about 1500 BC to about 300 BC, the terminating phase as evident from script, coinage and growth of urban centers from this time onwards (although by no means a uniform scene for the whole geographical area implicated). But obviously, the megalithic tradition continued in later centuries too and it forms a part of early historical cultures in the beginning. This scheme has been called into question by the re-analysis of wood samples from Wheeler’s (1948) excavation of megaliths at Brahmagiri by Morrison (2001), which yielded calibrated dates between 2140 and 1940BC, which puts it in the Southern Neolithic. Though only further radiometric dates from megaliths throughout the range of occurrence can help us place the practice of their construction in a proper chronological framework, these early dates suggest that the practice must have existed for a very long period.
1.3.4 Settlement sites of the megalithic age:

"... A thousand megalithic cists might be excavated with the utmost care without any significant addition to our knowledge of their chronology. Only by placing their culture in a related culture-sequence, such as an adjacent town-site could alone be expected to provide, was it possible to ensure a substantive advance of knowledge."

Mortimer Wheeler, 1948, Ancient India 4

It was this belief of Wheeler that led to him selecting Brahmagiri for his celebrated excavations (Sundara 1975). A sequence of three cultures, viz. the Early Historical, the Megalithic and the Neolithic cultures and distinct overlaps between them in turn, were methodically and unambiguously discovered as a result of his excavations.

In general, archaeologists have felt – quite erroneously – that there is an absence of “identifiable habitational remains” of the Megalithic communities of South Asia (Moorti 2008). Many authors, such as Leshnik (1972), Allchin and Allchin (1996) have contributed to this viewpoint. However, in 1994, when 1930 Megalithic burial sites were known, 176 habitation or habitation-cum-burial sites were identified without doubt, in addition to 217 doubtful habitation or habitation-cum-burial sites (Moorti 1994). More studies have to be done to understand the “spatial patterning of tombs within the settlement landscape”.

From excavations such as those at Paiyampalli, Hallur, Brahmagiri, Maski etc. it has emerged that the domestic architecture of the Megalith builders were circular, oval or oblong in plan and were probably made of perishable materials like wattle and daub and thatched or reed roofs, as evident from post-holes, parts of floors etc. (Sundara 1975).

1.3.5 Pottery: The characteristic ceramic repertoire of the Megalithic sites of south India are the Black-and-Red-Ware (plain and white painted varieties), Black, Red, Russet-Coated and Painted- and Micaceous-Red-Wares (Agrawal). Regional variation in the distribution of ceramics is also recognized – for instance, the Russet-Coated and Painted-Ware which is mainly associated with the western-interior peninsula and Kerala, is absent along the east coast; the Micaceous-Red-Ware is confined to the Vidarbha region.

The Black-and-Red-Ware, considered as a “necessary cultural adjunct” of Megalithic burials, has a long history of not less than 2000 years (Moorti 1984). The occurrence of this ware in different
cultural periods, viz. in Chalcolithic, Iron Age and Early Historic period is quite interesting and may indicate the preference in continuing a tradition by different communities. The Black-and-Red-Ware is a special kind of pottery. The two-colour effect on the same pot is believed to have been produced by the “inverted firing technique” – in which the lower portion of the pot, as also the the inside of it is in contact with the reducing flame present in the combustible material and this turns the clay in these areas black while the top portion of the pot exposed to the air turns red as a result of oxidization (Dey 2003). Its prevalence before the Iron Age and it gradually becoming a part of the Megalithic Culture of South India is now well known – why, when and where it became so needs to be probed further.

Morrison (2001) mentions that at Hallur, BRW is associated with a date of 1430-902BC, while a megalith excavated at Halingali containing BRW and Red Ware gave a date of 190BC-310AD, testifying to the long use of the pottery fabric in prehistoric societies in southern India.

1.3.6 Socio-economic basis for megalithic society: It has been for long held that the megalith builders were agro-pastoralists of South India. However, it is recently that the quantitative evaluation of the material data of the Megalithic period, as also its collation against an ecologic and systemic framework, has indicated that a combination of specialized strategies, i. e. agriculture and cattle pastoralism, was adopted at the societal scale of production (Moorti 2008). It is important to note that a majority of the settlement sites are located either on the banks of major rivers or on their major tributaries and most of the burial sites are situated within a distance of 10-20 km from the major water resources.

The following facts may also be suggestive of this subsistence strategy:

1. the maximum concentration of their sites in river valleys and basins and preference shown towards occupying black soil, and red sandy-loamy soil zones;
2. the distributional pattern of these sites in rainfall zones where the average annual precipitation ranges from 600 to 1500mm; as also
3. the occurrence of maximum number of sites mainly in tropical dry deciduous, tropical thorn and tropical moist deciduous forest zones avoiding as they did other dense forest zones (Moorti 2008, Moorti 1994)).
Their subsistence base seems to have been a specialized agro-pastoral economy dominated by cereal, millet and pulse production. There is evidence for the occurrence of wheat, rice, barley, kodo millet and pulse crops in Vidarbha; barley, rice, kodo millet and pulses in the Middle Krishna Valley and Andhra Ghats south area; and the remaining parts of South India have mostly produced the evidence for rice, ragi, kodo millet and pulses. Cattle (including buffalo) predominates over other domesticated species and accounts for more than 60% of the total faunal assemblages; whereas sheep/goat accounts for only 10-15% and was next only to cattle in importance.

There is enough evidence that many of the known 400 settlement sites of this period testify that industrial activities such as smithery, carpentry, bead making and pottery manufacturing were carried out, displaying as they do a highly developed tradition in these crafts. The items of exchange seem to have consisted of iron tools and weapons, copper and gold ornaments, semiprecious beads and pottery. Metal working was of very high quality, as evidenced by the study of the various metal artefacts at some of the sites (Mudhol 1997). The location of several Megalithic sites on the known early historical trade routes leaves a strong possibility of these acting as places/centers for exchange.

Although no comprehensive attempt has been made so far to understand the Megalithic religion and ritualism, the basic objective of archaeologists have been to know the role of religion and ritualism as part of the ideological system of the Megalithic society. The main sources of information in this regard are the burials as they form a prominent feature and are crucial in understanding some of the ideological facets of the Megalithic society (Moorti 2008). For instance, it is becoming increasingly clear that the Megalithic burial monuments were meant to hold only a very restricted number of persons, and the burial took place in them rather rarely, once or twice in a generation. It is also likely that these burials reflect only a certain (upper?) segment of the society.

There is evidence for numerous references to “Megalithic” burial tradition found in the Sangam Tamil literature that suggests that the society that produced the literature and the megaliths were one and the same in Early Historic Tamil region (Selvakumar 2005). The Iron Age-Early Historic “Megalithic” people gave more importance to the cult of the dead than their
predecessors. There seems to have been a cult of the dead that amounted to general respect for the dead, ancestor worship and hero worship in this region at least.

**The south Indian megalithic complex – outstanding issues:** Though the nearly two centuries of academic attention has resolved many questions about megalithic monuments, the societies that built them and the lifestyles and belief systems of their builders, several issues still remain unresolved. Apart from the very fundamental problem of chronology dealt with already, there remain other important problems like the purpose of erection of the megaliths that did not serve as burials or memorials, a proper understanding of the knowledge-systems of the megalith-builders, possible continuation and relationship with monumental architecture of the preceding and succeeding cultural phases etc.

As described in detail in Chapter 4, megaliths are classified into sepulchral and non-sepulchral types as a first level of differentiation. However, the non-sepulchral category lumps together megalith-types of seemingly widely varied possible purposes – such as the dolmen, which is most likely memorial in function, and the stone alignment or avenue which do not appear to be similar in function. Furthermore, there is the possibility that the different types of stone alignments may have had differing purposes. Taking all this into account, it is prudent to concentrate on the difference between the various types of megaliths, just as once it had been necessary to understand the widely varying forms as different expressions of the same cultural practice.

The knowledge systems of the megalith-builders pose another difficult challenge to unravel. Judging by the knowledge of geometry and engineering skills evident in construction of a wide variety of forms using large and heavy blocks of stones in many cases, it is highly likely that megalithic man had an advanced level of philosophical thought and views about the world. Since these megalith-building societies were pre-literate, their material culture holds the only key to understand their knowledge- as well as belief systems, apart from their rock art. Examples of prehistoric rock art are fairly common throughout the subcontinent from the Mesolithic onwards, and at several sites like Onake Kindi near the important megalithic site of Hire Benakal (see Fig.1.11), have been identified as belonging to the same culture that the megaliths are attributed to. Rock art, which mostly depict either aspects of day-to-day life of the period of its origin or
geometric patterns, and rarely, seemingly abstract philosophical beliefs of the artist, may hold vital clues to understand more of the belief systems of the time.

Figure 1.11: A rock art panel at Onake Kindi, near Hire Benakal, Karnataka

The possibility of cultural continuity from the Neolithic to the age of megalith building has already been discussed in the context of the ashmounds of the south Indian Neolithic. There have been instances of occupation or reoccupation of ashmounds for megalith-building activity and possible re-use of ashmound material in subsequent megalithic constructions. There have been suggestions of possible evolution of subsequent architecture – both sepulchral and otherwise, like Buddhist stupas (Schopen 2010) or Hindu Temples (Kramrisch 1976) based on similarity of form or concept or based on archaeological evidence. Though this is probably more difficult to prove, it offers an opportunity to better understand the evolution of cultural traditions in the subcontinent.