MEGALITHS OF SOUTH INDIA

The term ‘megalith’ is derived from Greek ‘megas’, which means great and ‘lithos’ meaning stone. As the nomenclature suggests, the ‘megaliths’ refer to the monuments built of large stones. But all monuments constructed of big stones are not megaliths. The term has a restricted usage and is applied only to a particular class of monuments or structures, which are built of large stones and have some sepulchral, commemorative or ritualistic association except the hero stones or memorial stones. In other words, the megaliths usually refer to the burials made of large stones in graveyards away from the habitation area.

Chronology

Megalithic cultures in India (including North India) have been roughly assigned to a prehistoric period or to a great antiquity by different scholars like M.H. Krishna, R.S. Panchamukhi, G.S. Ghurye, Panchanan Mitra and others. But their dating lacks the merit of being based on well observed archaeological context. So, this dating is generally countered by the archaeologists.

The problem of chronology of these cultures has evaded a clear solution. R.E.M. Wheeler, for the first time, on the basis of excavations at Brahmagiri provided a firm archaeological setting for megalithic cultures in South India. Based on archaeological evidence, he places these cultures between the 3rd c. B.C and the 1st c. A.D. But the limits prescribed by Wheeler on the basis of Brahmagiri evidence are unconvincing. Megalithic culture of South India had a much larger chronological span than what Wheeler could visualise over five decades ago. Similarly, B.K. Thapar, on the basis of his excavations at Maski, assigned the megalithic culture in South India from circa 200 B.C to the middle of the 1st c. A.D with a reasonable margin of a century on either side.

The problem in ascertaining the chronological span of the megalithic cultures in South India lies in the fact that only a few radiocarbon dates are so far available from megalithic habitations. The habitations site at Hallur gave a 14c date of 1000 B.C for the earliest phase of these cultures. Nagaraja Rao correlated this phase with the graves at Tadakanahalli, 4 kms. away from this site. S.B. Deo gives two radiocarbon dates for the sites at Naikund and Takalghat and places Vidarbha megaliths in circa 600 B.C. In Tamilnadu, Paiyampalli recorded a 14c date of circa 4th c. B.C. A. Sundara, on the basis of his explorations and excavations, pushed the date of the megaliths in North Karnataka region as early as 1200 B.C.
As the megalithic culture overlapped with the end phases of neolithic-chalcolithic culture, it is found in association with neolithic-chalcolithic wares at the lower end and with the rouletted ware at the upper end. In other words, the late phase of these cultures merges with the early historical period. On this basis the time bracket of the megalithic cultures in South India may be placed between 1000 B.C and A.D 100. This view is supported by many scholars like K. Rajan. However, the available archeological data suggests that the period of their maximum popularity lies somewhere between 600 B.C and A.D 100.

It is interesting to note that in other parts of the world, for example England, France, Iran and Seistan, such sepulchral monuments of the dead were constructed through this period and are not identical in all the countries.

**Origin and Spread of Megalithic Cultures**

The megalithic monuments are among the most widespread remains of man both in time and space. The origin of the most megalithic monuments is placed in the Mediterranean region in the early neolithic period. From here this culture is said to have been carried by traders who went in search of metals along the Atlantic coast to western Europe, and from the Aegean coast into Southern Europe through Greece. Its spread was in criss-cross pattern, carrying different cross currents across the whole of Europe. In the context of India this culture arrived with the Dravidian speakers who came to South India from west Asia by sea.

The fieldwork undertaken by various scholars since the last century has opened a new era in the study of South Indian megaliths. However, understanding the origin, diffusion, authorship, chronology and material culture of the megalithic period is a complex problem. These megaliths have been found in different chronological context practically all over India, from the plains of Panjab, Indo-Gangetic basin, the desert of Rajasthan northern part of Gujarat and especially all regions south of Nagpur in the Peninsular India. It survives as a living tradition in the north-eastern part of India and in the Nilgiris.

Different theories have been put forward regarding the origin and diffusion of the megalithic cultures. Scholars, by and large, unanimously look forward to a West Asian origin. According to C. von F. Heimendorf, the megalithic folk of South India were the Dravidian speakers who came to South India from the West by sea. But we find that the typical West Asian megaliths yielded the bronze objects and this culture came to an end in the
last phase of their Bronze Age around 1500 B.C. The Indian megaliths, on the other hand, belong to the Iron Age generally dated to 1000 B.C onwards. It is yet not certain when and how iron technology developed and became an integral part of the megalithic culture. It appears that even the advent of this metal into Indian subcontinent was through two routes and also with two groups. The material and chronological differences between the megalithic culture of northern India and southern India suggest that the coming of this culture into the Indian subcontinent would have taken place by two routes by the two different groups - one following the sea route from the Gulf of Oman to the West coast of India and the other following the land route from Iran. Asko Parpola in his book *The South Indian Megaliths* connects the megaliths with the *Vrtyas* of the Aryan origin who are referred to in the Vedic literature. But it can be observed that the complex pattern of widely different burial practices that are all lumped together and comprised in the term ‘megaliths’ is the result of mingling of various traditions and developments during a long period. Moreover, the limited explorations and excavations conducted so far generally concentrated in some geographical zones do not provide tangible conclusions about the origin of the megalithic traditions.

The early part of the 19th century witnessed the studies on the megaliths of Kerala with the discovery and excavation of a few burials in the Kannur district by J. Babington in 1823. Subsequently, several British administrators and many other individuals explored and excavated a large number of megaliths, and brought their findings to the notice of people. But they were mainly interested in the grave goods found in the megaliths and some of them even related the monuments with the local legends and folk tales. Later on, in 1887 scholars like W. Logan carried the study of the megaliths further. Since the publication of J.W. Breeks in 1837 on the megalithic monuments of the Nilgiris, the megalithic monuments of Tamilnadu have attracted the attention of many antiquarians, archaeologists and the institutions alike on account of their curious and imposing structures. But the systematic investigations of the South Indian megaliths began only in 1940s. Scholars like R.E.M Wheeler (1947), B.K. Thapar (mid-1940s) and V.D. Krishnaswami (1949) studied the megaliths at Brahmagiri (Karnataka), Porkalam (Kerala) and Cochin (Kerala) regions respectively and enriched our knowledge about megalithic phase. As mentioned earlier R.E.M. Wheeler, for the first time, on the basis of excavations at Brahmagiri, provided a firm archaeological setting for megalithic cultures in South India. He dated the megaliths on the basis of a characteristic ceramic (pottery) type - the Black and Red Ware (BRW),
which is available in all types of megaliths in South India. V.D. Krishnaswami studied the unknown megaliths of the Cochin region systematically for the first time in India and classified them into distinct types and also defined them in unambiguous term. He also standardized the terminology for megaliths. Thus, the confusion in the nomenclature of the megaliths was brought to an end. In recent years, scholars like B.K. Gururaja Rao, A. Sundara, K. Rajan, Rajan Gurukkal, P. Rajendran, C.S.P Iyer and others have illuminated us through their researches on the megaliths of different regions in South India.

The main concentration of the megalithic cultures in India was the Deccan, especially south of the river Godavari. However, large-stone structures resembling some of the usual megalith types have also been reported from some places in North India, Central India and Western India. These include - Seraikala in Bihar; Deodhora in Almora district and Khera near Fatehpur Sikri in Agra district of Uttar Pradesh; Nagpur; Chanda and Bhandra districts of Madhya Pradesh; Deosa, 32 miles east of Jaipur in Rajasthan. But since neither the excavation nor a reliable surface-examination of these monuments has so far been carried out, it is difficult to say if and how far they are connected with the megaliths of the Deccan. Similar monuments or structures are also found near Karachi in Pakistan, near Leh in the Himalayas and at Burzahom in Jammu and Kashmir. However, their wide distribution in the southern region of India suggests that it was essentially a South Indian feature which flourished at least for a thousand years, resulting in a variety within the underlying megalithic unity of common origin.

**Megalithic Culture – The Iron Age Culture of South India**

In the present state of research these megalithic monuments, whatever their external shape and contents be, seem to herald the Iron Age in South India. The megalithic culture in South India was a full fledged iron age culture when the great benefits of the use of this metal were fully realised by the people. Hence, normally the stone dropped out of use as a material for the weapons and tools to a large extent. The megalithic people of South India, or, for that matter, the iron age people of the subcontinent in general, found out new uses of stones in their daily life. Most of the information about the iron age in South India comes from the excavations of the megalithic burials. Iron objects have been found universally in all the megalithic sites right from Junapani near Nagpur in Vidharba region (Central India) down to Adichanallur in Tamilnadu in the far south.
With the introduction of iron there was a gradual change in almost everything except perhaps the house plans. But, of all these changes the most remarkable was the elaborate method of disposing the dead. This became a characteristic feature of the South Indian regions. Instead of laying the dead accompanied by four or five pots in a pit in the house, now the dead were buried in a separate place - a cemetery or a graveyard away from the house. The remains of the dead were collected perhaps after exposing the body for sometime and then the bones were placed underground in specially prepared stone box called a cist. The cists were elaborate structures and must have necessitated an amount of planning and cooperation among the community and the existence of masons and other craftsmen capable of manufacturing the required size of stones, large and small. It is probable that like Egyptian cellars, these megaliths must have been planned and kept ready before the death of an individual.

Classification of the Megaliths

It is not easy to prepare a typology of the megaliths of South India in general because the megalithic burials show a variety of methods for the disposal of the dead. Moreover, there are megaliths which are internally different but exhibit the same external features. Nevertheless, on the basis of the explorations and excavations carried out on different sites of South India, the megaliths can be classified under different categories depending upon their outstanding features. These are:

I. Rock Cut Caves,

II. Hood Stones and Hat Stones / Cap Stones,

III. Menhirs, Alignments and Avenues,

IV. Dolmenoid Cists,

V. Cairn Circles,

VI. Stone Circles,

VII. Pit Burials, and

VIII. Barrows

I. Rock Cut Caves

These are scooped out on soft laterite, as found in the southern part of the West Coast. These rock cut cave tombs are peculiar to this region and occur in the Cochin and Malabar regions of Kerala. They also occur in other regions. On the East Coast of South India, they are present in
Mamallapuram (Mahabalipuram) near Madras. In the Deccan and western India they are observed at Elephanta, Ajanta, Ellora, Karle, Bhaja etc. But these belong to a later date and were used for entirely different purposes while those in Kerala are purely megalithic and funerary ones, the others being of different tradition.

The Kerala funerary rock cut caves consist of an open well, roughly rectangular or square, cut vertically down the rock and provided with a flight of steps for descending to the floor. Such caves are found at many sites like Chovvannur, Kakkad, Porkalam, etc. More elaborate specimens of such caves occur at sites like Eyyal, Kattakampal, etc.

On the basis of his detailed study of these rock cut burial caves in Cochin region, Y.D. Sharma (1956) recognises four types of caves - (i) Caves with Central pillar, (ii) Caves without central pillar, (iii) Caves with a deep opening and (iv) Multi-chambered caves.

**II. Hood Stones (Kudaikallu) and Hat Stones / Cap Stones (Toppikkals)**

Allied with the rock cut caves but of a simpler form are the Hood stones or Kudaikallu. These consists of a dome-shaped dressed laterite block which cover the underground circular pit cut into a natural rock and provided with a stairway. In some cases the hood stone gives place to a hat stone or toppikkal, which is a plano-convex slab resting on three or four quadrilateral clinostatic boulders, forming a square base and a truncated top on which rests the toppikkal or the hat stone. This also covers an underground burial pit containing the funerary urn and other grave furnishings. Unlike as in the rock cut caves, there is no chamber apart from this open pit in which itself the burial is made. Usually, it contains a burial urn covered with a convex or dome-shaped pottery lid or a stone slab and contains skeletal remains, small pots and, sometimes ashes. Similar monuments are commonly encountered in Cochin and Malabar regions extending along the Western Ghats into the Coimbatore region upto the Noyyal river valley in Tamilnadu.

**III. Menhirs, Alignments and Avenues**

Menhirs are monolithic pillars planted vertically into the ground. These may be small or gigantic in height, ranging from 14 to 16 ft. down to a mere 3ft. Their common heights range between 3 to 6 ft. They are often rudely dressed or not dressed at all. These are essentially commemorative stone pillars set up at or near a burial spot. These menhirs are mentioned in ancient Tamil literature as nadukal and are often
called *Pandukkal* or *Pandil*. In some cases, the menhirs are not planted in ground but rest on the original ground propped up with a mass of rubble as at Maski. These occur in a number of sites in close vicinity of other type of megalithic burials, mostly in different regions of Kerala and Bellary, Raichur and Gulbarga regions of Karnataka in large numbers, but less frequently at other places of South India.

Alignments are closely associated to the menhirs. These consists of a series of standing stones, oriented to the cardinal directions. Some of these stones are 14 to 16 ft. high and one monolith at a certain place measured 25 ft. long. But the normal heights range between 3 and 6 ft. These stones are sometimes dressed. The alignments are found at Komalaparathala in Kerala and at a number of sites in Gulbarga, Raichur, Nalgonda and Mahboobnagar districts of Karnataka.

Avenues consists of two or more parallel rows of the alignments and hence many of the sites in the Deccan, mentioned above under alignments, may be considered as examples of this category of monuments when they are in parallel lines.

**IV. Dolmenoid Cists**

Dolmenoid cists consists of square or rectangular box-like graves built of several orthostats, one or more for each side, supporting the superincumbent capstone consisting of one or more stones, often with the floor also paved with the stone slabs. The orthostats and the capstones might be formed either of undressed rough blocks of stone or partly dressed flattish stones. The dolmenoid cists occur at large number at Sanur near Chingleput and many other sites in this region. The cists built of dressed slabs or the slab cists are the normal type of cists, occurring all over South India, as also in some parts of the north. There are many sub-types of this in Tamilnadu - (i) Dolmenoid cist with multiple orthostats, (ii) Dolmenoid cist with four orthostats planned contra-clockwise with U-shaped port-hole in the east or west, (iii) Dolmenoid cist with four orthostats kept contra-clockwise with U-shaped port-hole on the top corner of the eastern orthostat, and (iv) Dolemnoid cist with four orthostats arranged contra-clockwise and with slab-circles.

**V. Cairn Circles**

The Cairn circles are one the most popular type of megalithic monuments occurring all over south India in association with other types. They consist of a heap of stone rubble enclosed within a circle of boulders.
On the basis of the form of the underground burial, they may be divided into three sub-types - (i) Pit burials, (ii) Sarcophagi burials, and (iii) Pyriform or other types of urn burials.

The pit burials under the cairn circles consist of deep pits dug into the natural soil, roughly circular, square or oblong on plan. The skeletal remains and the grave furniture were placed on the floors of these pits. The pits were then filled up with earth, either the earth dug up in the pit or that which was brought from elsewhere, up to the original ground level. Above this earth filling was placed the cairn heap which might be just a thin layer or may rise up to 3 to 4 ft. above the ground level and bounded by a circle of stones. Such pit burials have been found at many sites in the Chingleput (Tamilnadu), Chitradurg and Gulbarga (Karnataka) districts.

A sarcophagus is literally a legged coffin made of terracotta. The cairn circles containing sarcophagi entombments are comparatively more widespread than the pit burials. They are similar to the pit burials described above but the skeletal remains and the primary deposits of the grave furniture are placed in an oblong terracotta sarcophagus. This sarcophagus is generally provided with a convex terracotta lid, rows of legs at the bottom and often with a capstone at a higher level. Rarely, these sarcophagi are not provided with legs, but are supported on pottery stands and vessels or placed on the floor directly. Such megalithic structures are found from South Arcot, Chingleput and North Arcot districts of Tamilnadu and Kolar district of Karnataka. They are also found in the southern districts of Andhra Pradesh, though they are comparatively rare in these regions.

The urn burials under the cairn circles are a variant form of the sarcophagi burials described above and occur in large number in most parts of South India. The urns, in which the burials are made, are deposited in pits dug into the soil. The pits are filled up with the soil up to the ground level and are frequently provided with a capstone. Then, the heap of cairns on the surface, which marks the burial, is surrounded by a circle of stones. They are predominant in Kerala and have been known to occur in Madurai, Tiruchirapalli, Coimbatore, Nilgiris, Salem, Chingleput and South Arcot district of Tamilnadu; Kolar, Bangalore, Hassan, Chitradurg, Bellary, Raichur and Gulbarga districts of Karnataka; various districts of Andhra Pradesh and the region around Nagpur in Maharashtra.

VI. Stone Circles

They are the most commonly encountered megalithic monuments in India. They reflect the features of various forms of megalithic monuments
such as the Kudaikallu, Topikkal, different types of pit burials, menhirs, dolmenoid cists of different types, cairns, etc. These occur from the southern tip of the peninsula up to Nagpur region and in different parts of North India, where the megalithic monuments are known to occur. But in this category under consideration, only stone circles without any considerable cairn filling within the circle, containing burial pits with or without pyriform urns or sarcophagi, are included. The monuments under this category are distinguished from the cairn circles only in that the cairn heaps occur or do not occur in these circles. Otherwise, all the three sub-types discussed above under the cairn circles are found to occur in this category also. It may appear that there is not much justification in making this distinction between cairn circles and stone circles. But at some sites like Sanur near Chingleput, both the kinds exist side by side, but in separate groups. Therefore, on the basis of some distinctions they are placed under different categories under our considerations.

VII. Pit Burials

Burials in pyriform or fuciform urns a large conical jars or handi-shaped jars containing the funerary deposits, are buried in the underground pits specially dug for the purpose into the hard natural soil and sometimes into the basal rock and the pits are filled up. In these kinds of burials we do not find any surface indication of the burial in the form of a stone circle, cairn heap, hood stone or hat (cap) stone, or even a menhir. These urn burials are without any megalithic appendage. But in some sites like Amritamangalam in Chingleput district some small heaps of earth mixed with quartz chips would make out the place of the burial. Strictly speaking, this class of megalithic burials cannot be included under the megalithic burial monuments, because no megalithic or, for that matter, any lithic appendage in the form of stone circle or capstone is observed in relation to them. But they exhibit the general traits of the megalithic culture of South India, characterized by the use of the typically megalithic Black-and-red ware (BRW) and associated wares with iron objects. These grave goods are identical typologically with their counterparts found in the regular megalithic burials. Moreover, these occur in the general areas where the typical megalithic burials exist. In fact, these urn burials do not differ in any detail from the urn burials under a stone or cairn circle of the megalithic order, except for the surface features. These urn burials without megalithic appendage are found in many sites of Tamilnadu like Adichanallur, Gopalsamiparambu and scores of other sites, practically in almost every village in Madurai, Tiruchirapalli, Coimbatore, Salem, and South Arcot.
districts. However, these occur less abundantly in Karnataka and Andhra regions. Even in North India, these urn burials are frequently observed at a number of Harappan and the Later Chalcolithic sites in Western, Central and North-western India, but their context is completely different from the South Indian urn burials. But the latter might have had some phylogenetic (racial affinity) connection with the former.

VIII. Barrows

The barrows or earthen mounds mark off the underground burials. They may be either a circular or a round barrow, oblong or oval on plan, a long barrow. They have or may not have the surrounding stone circles or ditches. Monuments of this kind have not been found in large numbers in India. However, such monuments have been observed in the Hassan district of Karnataka.

Grave Goods in Megalithic Burials

The megalithic burials have yielded a variety of objects, which prove to be very important for us in the study of megalithic culture. It is observed that right from the Later Palaeolithic period, an intentional burial was accorded to the dead for manifold motives. The megalithic people were no exception to the age-old custom and, therefore took pains to construct elaborate and much labour-consuming tombs. They furnished them with as many essential objects as they could afford. They thought this practice to be necessary as they believed in after-life of the dead. And so, the dead were suitably provided for a place to live in with goods of their essential needs.

In the Indian megalithic especially those in South India, the grave furniture consisted of a large variety of pottery; weapons and implements mostly of iron but often of stone or copper; ornaments like beads of terracotta, semi-precious stones, gold or copper, shell, etc., strung into necklaces or rarely the ear or nose ornaments, armlets or bracelets and diadems; often food as indicated by the presence of paddy husk and chaff, and some other cereals; skeletal remains of animals, sometimes complete in these graves.

Subsistence Pattern

A detailed analysis of the available archaeological, archaeobotanical and archaeozoological data recently by U.S. Moorti (1993), and their correlation with certain environmental factors indicates an agro-pastoral base for the megalithic period of South India, with other crafts coming to the fore and all plausibly intertwined in a symbiotic relationship with each
other. Now let us discuss the sector-wise developments illuminating the subsistence pattern during the period.

(i) Agriculture

The basis of their economy was agriculture. In fact, the megalith builders were responsible for the introduction of the advance methods of agriculture on a large scale, based on irrigation. Scholars like E.H. Hunt and N.R. Banerjee have observed that the megalithic builders introduced the ‘tank-irrigation’ in South India and thus brought a revolutionary change in the agricultural system. Their statement is based on the circumstantial evidence that the megaliths are concentrated invariably on the slopes of the hills or on elevated ground, which are not suitable for irrigation as they do not encroach upon arable lands. Some of the megaliths which seem to be on the edge of the tanks in the summer season, are virtually submerged in water during the rainy season. However, one can argue that the embankment, if at all it was man-made? Was the water stored in it sufficient for cultivation? Some of the sites are on the river banks. Does this mean that megalithic people were harnessing the river water for cultivation? Further, some of the sites are in thick forest. Neither is there any land for irrigation nor any tanks in these regions. There are many sites where there are no tanks.

On the basis of the above evidence B. Narasimhaiah opines that the megalithic builders were not the people who introduced ‘tank-irrigation’ in South India. Of course, it is a well-known fact that even from the prehistoric times man settled where there was perennial water source for his sustenance. The tanks therefore might have been natural ponds, which supplied water for their daily needs, but not for irrigation. However, most of the scholars believe that these tanks supplied water for their household life and to their crops. The tank-irrigation system, according to them, was definitely introduced into South India by the megalithic builders and it has lasted for more than 2500 years, till the present day.

These highly intelligent and pragmatic communities were to see that the fertile arable lands were not wasted from encroachments by their graves. Unproductive foot-hills, rocky and gravelly lands were used for the location of their graves, while lower down, the plains were reserved for agricultural purposes. But they seem to have considered that the spirit of their dead ancestors would not only guard but also bestow prosperity on their fields and hence, located massive though empty dolmens in the midst of their fields at Uttaramerur in Chingleput district of Tamilnadu.
Rice, an essentially irrigational crop, served, no doubt as their staple food. Paddy husks and rarely paddy grains are reported from a number of excavated graves from all over the region. Rice as attested by the Sangam literature, is the staple food of the people of South India since very early times and remains till today. The archaeobotanical evidence indicates the cultivation of other crops too such as Ragi, Navane, Wheat, Kodo millet, Barley, Hyacinth bean, Horse gram, Black gram, Green gram, Common pea, Pigcon pea, Grass pea, Jobs tears, Indian jujube, Goosefoot (Fathen), Lentil, Cotton, etc. in the megalithic period of South India.

(ii) Pastoralism

Scores of megalithic sites have yielded evidence of the remains of the domesticated animals like cattle, sheep/goat, dog, pig, horse, buffalo, fowl, ass, etc. On the basis of the analysis of these faunal remains at different sites, it is inferred that cattle (including buffalo) predominates over other domesticated species at these sites. Invariably, in all these sites it accounts for nearly more than 60% of the total faunal assemblage. This brings out two important facts. First, the earlier neolithic tradition of cattle keeping was continued and second, cattle pastoralism and not sheep/goat pastoralism, formed a major preoccupation of megalithic society.

The occurrence of the remains of domesticated pig and fowl suggests pig rearing and poultry farming on a small scale at many of the sites.

(iii) Hunting and Fishing

Hunting naturally augmented the food supply, as the equipment for hunting, like arrowheads, spears and javelins would indicate. Sling was probably another equipment used for hunting by megalithic people, as attested by the large scale findings of stone balls. The occurrence of skeletal remains of wild fauna like Wild boar, Hyena, Barking deer, Chousingha, Sambar, Chital, Nilgai, Peacock, Leopard, Tiger, Cheetah, Sloth bear, Wild hog, Pea fowl, Jungle fowl, Water fowl, etc. from different sites indicate that these species were hunted and obviously formed part of their dietary system. Even now, many of these wild species are found in and around the areas.

The evidence in the form of terracotta net sinkers from Takalghat and fish-hooks from Khapa and Tangal besides the actual skeletal remains of fish from Yelleshwaram reflect that fishing was also practised by the megalithic folk.

(iv) Technology : Industries and Crafts
For the fulfilment of other societal needs in domestic, technical and cultural fronts an efficient infrastructure of subsidiary economic activities is essential. The industrial activities such as smithery, carpentry, pottery making, lapidary, basketry and stone cutting which formed other economic activities of megalithic society, are dealt here mainly because of the interdependent link between these and the primary methods of production.

(a) **Metals** There are many megalithic sites which in all probability were the production sites of metals like iron, copper, gold, silver etc. The available archaeological evidence in the form of crucibles, smelting-furnaces, clay tuyers and presence of material like iron ore pieces, iron slag, copper slag and traces of ancient copper, gold mines or the mineral resources at or near to these sites is suggestive of smithery. The available archaeological evidence indicates the utilisation of metal implements such as axes, ploughshares, hoes, sickles, spades, etc. The use of axe was either for cutting logs or for clearing forests. The use of hoe (or bladed harrow) for cultivation has been recorded at many sites. This particular implement resembles the modern bladed harrow, known as “kunte” in Kannada and “gunlaka” in Telugu. The use of ploughshare from many sites amply attest to the technological base of megalithic people for carrying out the agricultural operations. A recent study (1986) also highlights a wider knowledge of agricultural technology attained during the protohistoric and early historical India.

Iron was the metal used predominantly to produce weapons of different shapes and for different purposes, tools and implements for agricultural purposes and everyday household needs. The rich variety of iron objects enables us in understanding the aspects of their economy and their way of life to a large extent. These objects reflect that agriculture was their primary occupation as a large number of iron tools necessary for agricultural activities are found at different sites. Copper was used for the production of vessels and ornaments. The ornaments were also made of gold. The use of silver was rather scarce. Though Adichannallur burials and Nilgiris yielded bronze objects the use of bronze at these two sites are exceptions and it is rather doubtful if these were locally manufactured.

An efficient utilisation of metallic resources is dependent upon another crucial factors and they are the availability of fuel and type of fuel capable of producing the required degree of temperature. Perhaps the most common type of fuel used by these pre-industrial smelters were charcoal, wood dung and paddy husk.
(b) Woodcraft / Carpentry: A wide variety of technomic items viz., those related to woodcraft indicates another skilled profession practised by megalithic people. The evidence shows that the axes, chisels, wedges, adzes, anvil, borers, hammer stones, etc., formed the main tool-kit for working on the wood. The archaeobotanical evidence from megalithic sites show that the information regarding some of the plant species like Acacia, Pinus, Brassica, Stellaria, Teak, Satinwood etc. were already known to these communities. The use of wooden plough for cultivation cannot be set aside as suggested by M.K. Dhavalikar and G. Possehl. Even now, the tillage implement common in black cotton soil tracts, is the country wooden plough, which is large and very heavy.

The woods were also used for posts in the construction of huts with thatched or reed roofs supported on wooden posts. Postholes are observed at Bramagiri and Maski indicating the presence of timber constructions for domestic buildings. Some scholars like S.B. Deo suggest an advance stage of wooden architecture involving dressing of wood and creating different types of mortice holes either for interlocking or for tenons. The common occurrence of these technomic items suggests ample use of wood for construction and many other purposes.

(c) Ceramics (Pottery): The ceramic fabrics associated with the megalithic culture are black-and-red ware (BRW), burnished black ware, red ware, micaceous red ware, grey ware, russet coated painted ware (RCPW), etc.

BRW, which is a wheel-turned pottery, essentially consists of utilitarian shapes and a majority of the forms probably served as tableware of megalithic society. The prominent shapes encountered in this ware are varieties of bowls, dishes, lids or covers, vases, basins, legged jars, channel-spouted vessels and conoids.

The burnished black ware, which is also wheel-turned, comprises some prominent shapes such as elongated vases, tulip-shaped lids, funnel-shaped lids, goblets, spouted vessels, circular ring-stands, knobbed and rimmed lids with bird or animal finials.

In red ware the shapes are strictly utilitarian which include legged vessels, double knobbed lids, ring-stands, dough plates and vases.

Of all the types, the most attractive are the RCPW with wavy lines and other decorations. They are occasionally bearing post-firing graffiti. Russet-coated jars are recovered from several sites.
The micaceous red ware exhibits typical shapes like pots with globular body and funnel-shaped mouth, dough plates and basins. Decoration in the form of cording, applique and painted designs have also been noticed.

All these varieties of pottery are characterised by a fine fabric and are produced from well levigated clay rarely with sand or such gritty material. They were generally well fired in open kilns at low temperature. R.E.M. Wheeler opines that possibly the pottery were turned on a slow wheel.

The evidence of pottery kilns from at least two sites, viz., Polakonda and Beltada Banahalli can be taken as supportive evidence for the practice of this craft. Although, the above evidence at both these sites comes from late neolithic levels, a continuation in the habitational deposit bearing megalithic levels may help us to assume so. A wide variety of shapes in different fabrics to serve as tableware for eating and drinking purposes and cooking utensils and the technical efficiency evident in the preparation of these ceramics or potteries might hint at a professional class of potters and pottery making as one of the important economic activities.

(d) Miscellaneous (Bead making, Mat weaving, Stone cutting, Terracotta making, Rock art, etc.): A number of objects ranging from single terracotta beads to very finely manufactured gold ornaments were used by the megalithic folk for their personal decoration. The locational occurrence of some of the megalithic sites in resources zones, and the evidence of bead making industry attested at two megalithic sites - Mahurjhari and Kodumanal, are suggestive of the practice of this craft. The availability of a large variety of beads show that agate, carnelian, chalcedony, feldspar, coral, crystal, garnet, jasper, tremolite, magnesite, faience, paste martz, serpentine, shell, steatite, amethyst and terracotta were utilised in the preparation of beads of different exquisite shapes. Apart from the use of semi-precious stones, some of the shapes have also been worked on precious metals like gold, shell, horn, bone and glass.

The mat impressions left on the base of jars at sites like Managondanahalli and Nagarjunakonda indicate that the art of mat-weaving was known and practised.

The activity of stone-cutting is attested by the chisel impressions noticed at Borgaon Khurd (Maharashtra) on a stone trough, excellent laterite cutting evidenced in rock-cut chamber tombs of Kerala region, the field observation by A. Sundara in the construction pattern of chamber tombs in North Karnataka and also the occurrence of domestic stone artefacts such as pestles, mortars, saddle querns, etc., at many megalithic sites.
Terracotta discs, figurines, gamesman, miniature pottery vessels found from graves attest their use as toys for entertainment of children. The most remarkable is the terracotta disc resembling spindle-whorls, which was probably used in hop-scotch game. This is suggested by the discovery of a disc in the grave of a child.

Scholars like S.P. Tampi, Y. Mathpal and K.J. John, on the basis of the engravings and paintings on the rock-shelters in peninsular India, argue that these megalith builders were the authors of these paintings. There is evidence in Sangam literature also of the erection of burial stones with paintings as well as writings. But, unless direct dating of the pigments from the painting is done, the antiquity and authorship of these paintings cannot be ascertained.

Thus, we can say that the megalithic people practised a highly specialised agro-pastoral economy. The divergent economic patterns, which seem to have prevailed then, as is the case even now, were not isolated but had a symbiotic relationship with each other.

**Trade and Exchange Network**

The excavations have yielded various non-local items among the grave goods which reflect that there were exchange activities during the megalithic period. According to R.N. Mehta and K.M. George, carnelian beads reported from coastal sites, which were points of exchange in ancient times, direct us to the presence of trade activities. Similarly, the availability of bronze suggests the arrivals of copper and an alloy, either tin or arsenic, from somewhere. From the Graeco-Roman writings and the Tamil texts it is clear that at a little later period maritime exchange was the major source for procuring them. The archaeological remains like the rouletted ware, amphora and other ceramic materials found at many sites like those at Arikamedu are evidence for this. Scholars like H.P. Ray, Rajan Gurukkal, R. Champakalakshmi and others have already shown that inter-regional and intra-regional exchange of goods were fairly well established in South India by the 3rd c. B.C. Regional variation in the production of commodities and the non-availability of local raw materials/finished goods had set in long-distance transactions under the initiative of the long-distance traders from the Gangetic region as well as the overseas world. The exchange network which was in an incipient state during the early iron age expanded over the centuries as a result of internal dynamics and external impetus involving the demand for goods in other parts of the subcontinent as well as the Mediterranean region. Many scholars including B. Morris, S. Gupte and D. Stiles opine that it was a network across land and seas with
long-distance traders in the middle and unevenly developed people at either side. Thus, the megalithic people as the hunter-gatherers and shifting cultivators of iron age also had active participation in the exchange network.

**Social Organisation and Settlement Pattern**

It is not archaeology but anthropology, which provides us evidence to assume the possibility of production relations transcending clan ties and kinship in such remote periods of tribal descent groups. By and large they point to the material culture of diverse forms of subsistence such as hunting/gathering and shifting cultivation besides the production of a few craft-goods, which have been discussed in the previous section (“Subsistence Pattern”) of this chapter.

Though there was commonality in the idea of megalithism and the associated assemblages, the variations observed in the external and internal features of the burials reflect that the iron age society of the megalithic people was not a homogenous entity. Some of the relatively huge burial types are suggestive of status differentiation and ranking of the buried individuals as discussed earlier. Differences in the types and contents of the burials suggest that there was some sort of disparity in the attributes of the buried individuals. The number of more elaborate burials like the multi-chambered rock-cut tombs at many sites, are limited. Moreover, these have yielded rare artefacts made of bronze or gold. On the other hand, many of the burials are simple urn burials with a very few artefacts. The variety, high quality and fineness of ceramic goods in huge burials including the elaborate urn burials, are also suggestive of the difference in social status. The studies on the megalithic society of South India by scholars like J.M. O’shea and U.S. Moorti generally assume that “an individual treatment at death bears some predictable relationship to the individual’s state in life and to the organisation of the society to which the individual belonged”.

The megalithic people lived in villages consisting of a sizeable population. Though they had a bias for the urban life, they were slow in building huge cities like their contemporaries in the Gangetic Valley. The size of the population is indicated by the organised mass of manual labour that was available for transporting and housing massive blocks of stone in the construction of cists, dolmens and other types of megaliths, or in erecting large rubble and earthen mounds across the water courses for storing up rain waters for irrigational purposes. The large size of population is further attested by the fact that extensive burial grounds with numerous
graves, many of them containing the remains of more than one individual, and occasionally of as many as 20 or more individuals, have been found.

The houses in which the megalithic people lived probably consisted of huts with thatched or reed roofs, supported on wooden posts as indicated by the presence of postholes in the excavated sites. At Brahmagiri and Maski were found postholes indicating the presence of timber construction for ordinary buildings. Some scholars like S.B. Deo suggest an advance stage of wooden architecture during the megalithic period.

An increase in the size and number of settlements during megalithic period from the preceding neolithic/chalcolithic phase and growing use of different metallic resources was certainly not an independent development. This can be perpectively observed, as Sheratt (1981) argues in the effect of the spread of plough cultivation which produced major alterations in the structure and distribution of settlements. Although it is difficult to substantiate this point further in the absence of studies concerning land-use patterns during the megalithic period. However, an analysis of the available data by U.S. Moorti on the locational context and the distribution patterns of these sites strongly indicates a growing inclination towards intensive-field method. He suggests village transhumance on the basis of the location of most of the settlement sites either on the banks of major rivers or on their major tributaries and that of most of the burial sites within a distance of 10-20 km from major water resources. The maximum concentration of sites in river valleys and basins and preference shown towards occupying black soil, red sandy-loamy soil zones also supports this contention. The distribution pattern of these sites in rainfall zones where the average annual precipitation is 600-1500 mm, also hints to the same conclusion.

Religious Beliefs and Practices

The elaborate architecture of their graves, the grave goods and other metal and stone objects throw light on the religious beliefs of megalithic people. The megalithic people had great veneration for the dead as they constructed these monuments with great effort and devotion. They believed that the dead had a life after death and the living had to provide them with their necessities. The grave goods indicate that they belonged to the dead man in life and since they were required for his/her use in the other world, they were buried along with the mortal remains. All these certainly reflect that the ‘cult of the dead’ had a strong hold on the people. The grave goods represented the affection and respect of the living for their dead.
Their belief in animism is reflected in animistic cults. This is evident by the occurrence of animal bones of domestic animals like cattle, sheep/goats and the wild animals like wolf in the megaliths. It seems that these animals were killed for the funeral-feast and the skeletal remains were buried in the graves, or they were sacrificed and buried in the graves to supply food for the dead. Animism is also reflected by terracotta figurines of animals decorated with garlands and ornaments.

Sangam literature, which is contemporaneous with the end phase of the megalithic culture in South India, also throws light on the different methods of disposal of the dead prevalent among the megalithic people. Many of the earlier beliefs continued during the Sangam age. So, we may assume that the religious practices referred to in the Sangam literature reflect, to an extent, those that prevailed among the megalithic people. The tradition of associating stone with the dead has survived in South India till late times and the herostones or the Virakal or the Mastikal are examples of this.

**Polity**

The differences in the size of the monuments and the nature of the grave valuables reflecting differentiation in status and ranking, also suggest the nature of contemporary political power. The construction of a huge monument involving the mobilisation of substantial collective labour implies the power of buried individual to command it.

In the light of the fact that the contemporary people were tribal descent groups, anthropologically we may assume the prevalence of chiefly power, i.e. chiefdoms. The chief was the great son of the descent group. The Late phase of the megalithic cultural coincides with the Early historical period as reflected by the excavation at many sites. So, the Sangam works also help us in understanding the period. The chief of the tribal group is referred to as perumakan (great son) in the literary texts. He commanded the entire personal, material and culture resources of his clan. This attests that these elaborate burials probably were of the chiefs or descent heads. The tribal pattern of the distribution of power was simple and involved no hierarchy, though the chiefs, their heirs and warriors had a privileged status. However, this differentiation in status was too flexible to be made out as a stratification.

There is no theoretically plausible evidence showing the existence of a class-structured society anywhere in South India even by the mid-first millennium A.D, which is the upper date now ascribed to the megaliths. Therefore, the remarks of some scholars about the existence of tribal descent
groups as a stratified society with aristocrats seems inconceivable. The period of these huge monuments hardly crosses the last two or three centuries before Christ. This period witnessed numerous small chiefdoms co-existing and contesting against one another and anticipating the emergence of big chiefdoms by the turn of the Christian era. As Rajan Gurukkal has shown, the people under big chiefdoms also were in a social organisation based on clan kinship ties and a complex system of redistribution. From the references in Tamil heroic texts like *Purananuru*, it is evident that even the big chieftains, who had enjoyed prestigious status among many other chieftains, were also given urn burials. So, in a way all burials including the most commonly seen urn burials represent individuals or groups with some status and ranking as headmen or kinsfolk. Thus, it can be assumed that even urn burials were of chiefly type. Sometimes memorial stones (*natukal*) were erected over the urn burials of great chieftains and warriors. However, the huge multi-chambered rock-cut tombs are not mentioned anywhere in the literary texts, probably because the practice of erecting such elaborate burials must have become uncommon by that time.

Some of the chiefdoms must have been bigger depending upon their human strength, resource control and exchange relations. This is testified by the prestige goods and varieties of ceramics and other artefacts found in the graves.

The megalithic people had been interacting and exchanging material and cultural goods with one another. There was need-oriented and use-value based interaction at the level of clans. But at the level of chiefs it was competitive and hence combative process of plundering raids, both inter-clan and intra-clan, led by chiefs for predatory control. This led to subjugation of one chief by the other which in turn helped the emergence of bigger chiefs and the formations of bigger chiefdoms. These armed fights among the clans must have resulted in the death of many chiefs and warriors. Probably, this was the reason for erecting numerous sepulchral monuments during the megalithic period. This also accounts for the emergence of the cult of heroism and ancestral worship. Through armed confrontation and predatory subjugation the cultural and political power of a few chiefdoms became more evolved over the years and they emerged as bigger chiefdoms. The Tamil heroic texts represent the phase of bigger chiefdoms. From this we can infer that the last phase of the megalithic period which is contemporaneous to the Sangam period, marked the march towards bigger chiefdoms.

**Legacy of the Megalithic Culture**
It is interesting to note that megalithism is still alive amongst different tribes in India, for example the Maria Gonds of Bastar in Madhya Pradesh, the Bondos and Gadabas of Orissa, the Oraons and Mundas of Chotanagpur region now in the state of Jharkhand, and the Khasis and Nagas of Assam. Their monuments, which are of a memorial nature, include dolmens, stone-circles and menhirs. The North-east Indian megalithic culture seems to have a South-east Asian affiliation rather than the western influence.

In South Indian context, the remnants of megalithism among the Todas of Nilgiris are very significant. The account of M.J. Walhouse regarding the funeral customs of this primitive tribe reflects the surviving burial practices that were followed by the megalithic people. It helps us in understanding the probable customs that existed among the now extinct megalithic builders of South India. The existing burial practices of the Todas include many common features of the megalithic burials with grave goods including food items and the use of stone circles to mark the place of the burial.

Limitations of the Sources for the Study of Megalithic Culture

The major problem that comes in our way of studying the megalithic culture is the form in which the sources are available to us. Firstly, as almost the whole of our evidence is collected from the burials, the knowledge about the conditions and methods of their everyday life is necessarily limited to the evidence supplied by their grave furniture and the various inferences that can be drawn from the observation of the architecture of the graves and connected considerations. The literary evidences which include the accounts of Graeco-Roman writers and the ancient Tamil texts (Sangam literature) have their own limitations as their period marks the end phase of the megalithic culture. Secondly, vertical digging in excavations of different habitation sites with a aim to unfold the cultural sequence of these sites provides us with evidence, which is scantly and limited in nature. And, on the basis of these evidence it is hazardous to generalise about their cultural attainment. Though scrappy, the evidence obtained by these excavations nevertheless enables us to build a tentative picture of the megalithic culture. Moreover, the lack of settlement remains associated with the burials is the frequently raised issue in the context of the peninsular Indian megaliths. Due to the absence of habitation sites in regions like Kerala, the analysis of the settlement pattern of the megalithic culture has become a difficult task. The settlement sites could have provided a variety of evidence in addition to the stratigraphic data for
separating periods of various culture strands, thus, making the reconstruction of the cultural history of megalithic people more illusive.

Thus, the megaliths of South India reflect a series of questions, answers to which are still shrouded in mystery. In his very recent writings B. Vidyadhara Rao (2000) has even questioned the authenticity of the megaliths as a burial. The issue still requires more investigations. Let us hope that the future researches on the subject would illuminate us with a more confirmed and clear image of the megalithic culture.

**Conclusion**

Summing up the above discussion, we can say that the megalithic culture in South India was gifted with dynamic people, who almost revolutionised the society of the earlier neolithic-chalcolithic times. They depended heavily on agriculture to sustain a considerably large society, though hunting and fishing supplemented their food supply and various industries and crafts enriched their economy. It becomes amply clear that the megalithic people practised a mixed-economy on agro-pastoral production. They had a bias towards the urban life but were slow in building up huge cities unlike their contemporaries of the Gangetic valley, where well-established cities had been flourishing since the 6th-5th centuries B.C. They were essentially a separate and more group of dynamic people than the other iron age folk in India. The cult of the dead became the dominant feature of their religion and life, which survives in the culture of many tribes till today.