Chapter – IX

THE EARLY FARMING CULTURES OF SOUTH INDIA
WITH A SPECIAL REFERENCE TO ANDHRA PRADESH
INTRODUCTION:

The early farming settlements in South India date back to the second half of third millennium B.C. when they make a rather sudden appearance in the lower Godavari, Krishna, Tungabhadra, Pennuru and Kaveri and their tributary river basins encompassing the states of Andhra Pradesh, Karnataka and Tamil Nadu. These sites, by and large, are scattered in the semi-arid, low rainfall, and sandy loamy regions mixed with black cotton soils which are of marginal utility for farming and better suited for pastoralism. The salient features of these agricultural settlements are: (1) sedentary village settlements with semi-permanent to permanent structures, mostly wattle and daub; (2) stone tools fashioned by grinding and polishing made on hard rocks like dolerite and basalt; (3) long and thin blade artefacts made on fine grained rocks like chert, jasper, chalcedony, crystal and agate; (4) pottery which is handmade in the earlier stages and slow wheel made in the later stages; and (5) an economy based on millet farming, and cattle and sheep/goat pastoralism, notwithstanding the fact that the dietary requirements are supplemented by wild game. The economy is thus basically agro-pastoral with a sedentary village life.

HISTORY OF NEOLITHIC DISCOVERIES:

The first discoveries of ground stone implements in South India are more than a century old. Captain New Bold’s discovery of ash mounds at Kudatini and Kupgal in 1836, and William Fraser’s discovery of Neolithic
settlements at ‘Noth Hill’ of Bellary town and Kupgal near Sanganakallu have created an inquisitiveness in Robert Bruce Foote, who after 1885 discovered nearly 200 neolithic sites in Deccan and South India. The notable work of Foote fall in the districts of Hyderabad, Mahabubnagar, Kurnool, Cuddapah, Anantapur and Guntur of Andhra Pradesh, Raichur, Chitaldurg and Bellary of Karnataka, North Arcot, Salem and Tiruchinapalli and Dharmapuri in Tamilnadu (Fort R.B. 1887, 1916). Since Foote’s work in many parts of the country particularly in Deccan and South India, ground stone implements were collected in large quantities. But it was not until 1947 that the conscious attempt was made to determine the chronological and cultural contexts of the ground stone industries. Wheeler’s excavations at Brahmagiri (1948 : 181-310) have placed the Neolithic industries of the Deccan in a chronological perspective.

**NEOLITHIC EXCAVATIONS:**

Wheeler’s excavation of Brahmagiri provided the necessary stimulus, where after, Neolithic sites one after the other were excavated in quick succession in different parts of South India. These excavated sites include Sanganakallu (Subba Rao, B:1948; Ansari, Z.D. and Nagaraja Rao, M.S. 1969); Nagarjunakonda (Soundararajan, 1958: 48-113; R. Subrahmanyam et. al. 1975) Piklihal (Allchin, F.R. 1960); Utmur (Allchin, F.R. 1961); Maski (Thapar, B.K. 1975:4-142); Kesarapalle (Serkar, H. 1962); Tekkelakota (Nagaraja Rao and Malhotra 1965); Hallur (Nagaraja Rao, M.S. 1971); Paiyampalle (Rao, S.R. 1968-26-30); T. Narsipur (Seshadri, M. 1971); Tardel (Sundara, A. 1969-70:23-33);
Jami (Ramachandrayya, O. and Subrahmanyam, B.R. 1976); Kodekal (Peddayya, K. 1973); Veerapuram (Sastry, T.V.G. et. al. 1984); Dalamalai and Totarapalli (Narasimhaiah, B. 1980) etc. The evidence furnished by these excavations has gone a long way to add to our knowledge of the life and times of Neolithic in South India.

**ORIGIN AND SPREAD OF NEOLITHIC CULTURE :**

Regarding the origin of Neolithic culture in India, Wheeler contended that it holds its origins to South East Asian and Chinese influences. The remarkable view was given support by a similar contention of Worman. Wheeler (1948:295) and Worman (1949:20) stressed on the East Asiatic Origin of Indian Neolithic culture because of the geographical distribution of Neolithic find spots which occur to the south-east of hypothetical line drawn to connect Lucknow with Bombay. But Wheeler’s proposition received a well thought out criticism from Dani (1960) who demonstrated that the Indian Neolithic did not belong to a unitary cultural complex, but on the other hand he made it amply clear that atleast two strains went into the make up of the Indian Neolithic culture i.e. the Eastern Neolithic and Southern Neolithic. Krishnaswamy (1960, 25-64) rightly stressed on the recognition of several cultural zones in trying to prepare a distribution pattern for the Indian Neolithic culture. Allchin, F.R. (1960:125-127), however believes that the South Indian Neolithic cultures characterized by pointed butt axes and grey pottery may have had origins traceable to the Neolithic and chalcolithic cultures of West Asia. But Allchin does not enlighten us on the route
followed by the Neolithic influences to spread into South India. Further, it is not possible to get a continuity of land route in the geographical distribution of pointed butt axes, the wide area separating Deccan from the Indo-Iranian border lands (Sankalia, H.D. 1964:271-72). Discounting the land route, the alternative would be to think in terms of sea route across the Arabian sea. If sea route is to be followed we should expect in India an exact replica for one or the other features of the Neolithic cultures of West Asia in Deccan and South India. But such has not been documented so far on the archaeological record. On the other hand, if the land route were followed, the Neolithic cultures of the Deccan should have been transmitted through Indus or post-Indus traditions. But not many Harappan influences are to be found in the cultural make up of the South Indian Neolithic (Sankalia, H.D. 1974:271-72). If we discount extra-Iranian origins for the Neolithic of South India, we have to provide satisfactory proofs for independent origins of farming either in Deccan or South India. Thaper, B.K. (1965) is of the opinion that Southern Neolithic originated independently in the Deccan/South India region itself. According to him, Neolithic blade industry might have been derived from the then existing microlithic culture and agriculture and Pastoralism might have originated independently. He also wishes to find out “whether there was any continuation of microlithic tradition from the aceramic geometric series into the southern Neolithic complex”. In this context, Sundara’s (1983) theory is worth noting. According to his theory, he tried to identify aceramic Neolithic stage similar to that of West Asia at Shevroy hills in
Tamilnadu and Maski and Sanganakallu in Karnataka and early Neolithic stage characterized by coarse gritty pottery, limited number of ground stone axes and microlithic at Nagarjunakonda of lower Krishna Valley and Dailamalai, and Togerapalli of the upper Kaveri valley. According to him the mature Neolithic stage was developed at Krishna-Tungabhadra doab because of the fusion of Deccan chalcolithic cultural traditions into the aceramic and early Neolithic traditions. This stage he attributed to mature Neolithic found at Nagarjunakonda (Phase II) or the sites similar in nature elsewhere. Though this theory is appealing, it is still at a hypothetical stage and needs much survey and digging. Inspite of all these theories we have to confess that we know very little about the origin of Neolithic culture in the Deccan and South India.

PHASEWISE DIVISION OF NEOLITHIC CULTURE:

Perhaps no other scholar has done as much for the study of South Indian Neolithic as did Prof. Allchin, F.R. (1968:158). He has shown that the Neolithic of South India underwent a long evolutionary process culminating in the beginning of the urban centers in India in general and South India in particular in the first millennium B.C. This long process of evolution which covered a time span of over 1500 years was divided by him into three phases, the early Neolithic, the mature Neolithic and late Neolithic (Allchin, F.R. & B. 1968 161-170). Each of these temporal divisions are characterized by certain distinctive features of its own. The present writer, while appreciating the three fold phases proposed by
Allchins, tried to project the cultural attributes of Neolithic in South India more comprehensively to suit all the available excavated data.

2. EARLY PHASE:

The early Neolithic phase of South India is represented by Utnur, Kedekal, Brahmagiri and early phase of Piklihal. At Brahmagiri a stratigraphical gap separates the early and the mature phases of the Neolithic culture.

The settlements are confined to tops of low lying granetoid hills or on leveled terraces on hill sides surrounded by vast stretches of fertile black regar soils. The site selections seem to have prompted the Neolithic folk by the availability of raw material, cultivable plots and fodder for domestic animals. The settlements were very small in extent and one such settlement at Utnur measured 180’ x 180’ m. The information about the structural activity is scanty and basing upon a group of post holes at Utnur, it is inferred that light super structures were raised on wooden posts.

The pottery is handmade and consists of both coarse and fine fabrics. There appears that the locally available clay on riverine sites mixed with mica and other gritty substances was used for pottery manufacturing. The pottery contain a wide range of surface colours such as red, grey, pale grey, buff, brown and black. Sherds of the finer fabric were generally slipped and burnished and sometimes even painted in red ochre and black colours. The pre-fired black-on-red ware is very limited and the painted motifs available are horizontal or vertical bands or
criss-crosses or wavy lines. A solitary example from Brahmagiri contains ‘highly conventionalized plant design (Wheeler, R.E.M. 1948). The red ochre paintings were usually post fired in nature, recovered in large numbers. At Utnur it occupied 40% of the total grey ware. The painted motifs constitute horizontal or vertical strokes, mostly executed on the top or on the edge of the rim. The pot forms that are available in the early phase are very limited and include wide mouthed globular vessels with out-turned or flearned rims or pots with bulbous bodies with carimated rims, bowls with convex and straight profiles and dishes of various dimensions. Piklihal and Utnur provide yet another rare example of bowl/dish with multiple legged stand. The lugs and handles occur in a limited quantity.

Ground stone implements and stone blades form the stone tool assemblage. These are crude and unsophisticated and seem to have been made on a locally available raw material. Brahmagiri has yielded 4 edge ground tools among which only one is a full specimen. Kodekal has one edge ground axe where as Utnur is devoid of any edge tools from the excavation, though there occur a few specimens from the surface. Piklihal has 9 edge tools from this phase. The edge tools of the early tradition fall in axe group and the absence of special tools such as adzes, chisels and picks is noteworthy.

The chipped industry of this period was limited and cinoruse if rudimentary flake or blade tradition’. At Brahmagiri 9 out of 89 specimens recovered belong to this phase. The crypto-crystalline syllica material was the
chief raw material used. The finished tools include blades, backed blades, scrapers and points which were crudely fabricated. The absence of retouch was an important feature of the industry.

Information about the disposal of the dead is scanty though there is every reason to believe that systematic burial practices were in vogue. Of all the sites, only one instance was recorded at Utnur wherein an infant was buried in a pit in foetal position.

The period witnessed mixed economy and included both food collection and food production. Hunting and fishing played an important role. Though there is no direct evidence of plant cultivation, the presence of querns, mullers suggests some sort of cereal and grain processing activity. Utnur abounds in cattle bones. However, the remains of deer and goat were also obtained at Utnur. More and above Utnur, Kodekal, has produced unmistakable evidence of the dog, owl, fish fowl and wild animals like gazelle, spotted deer, barsingh, monitor lizard. Brahmagiri and Piklihal have produced similar evidences. The domestication of cattle and other animals was once again confirmed in the terracotta figurines found at Piklihal and Utnur. Some rock bruisings at Piklihal give the evidence of cattle.

3. MATURE PHASE :

Around 1800 B.C. there appeared a sudden change in the Neolithic culture of South India which resulted in the dispersal and diversification of the
culture emanating from Raichur and Bellary doab. This change might be due to the movement of the cultural goods if not people possibly from Western Deccan. Though the impact of the movement and consequent introduction of metal and other techniques is considerable, it could not mould the basic economic structure of the Neolithic society in this phase.

The regions to which the Neolithic culture spread include the upper Krishna basin in the north, Tungabhadra basin in the west, Kaveri and Kapila rivers in the South and lower Krishna basin in the east (Paddayya, K. 1973:109; David Raju, 1990). The carbon dates obtained by Paddayya also give testimony of the later settlements in the 4 regions mentioned above. The fundamental features of the phase are revealed in Brahmagiri Ib, Maski, Ia, Piklihal upper Neolithic, Sanganakallu Ia, Palavoy Ia, Hallur Ia, T.Narsipur Ia, Tekkelakota Ia, Hemmige Ia and Paiyampalle early phase.

A change in the settlement pattern is evidenced in this period. The tops and the slopes of low lying granitoid and schistose hills which were hitherto habitational grounds for the early Neolithic settlements began to give way for the open air settlements preferably by the side of a perennial water sources. Hallur, T.Narsipur and Hammige may be cited as examples of this kind.

The information about structural activity is more clear in this phase. The structures were raised on wooden posts supported possibly by conical thatched roof. The uneven ground was first leveled and rammed either by red
morun mixed with sand or pebble chips or by both before the structures were raised. The leveling process at times continued for two or three as witnessed at Sanganakallu, at Tekkelekota, lime plastered floors were identified. The walls were raised by stone or by mud and supported by wood or bamboo screen as were noticed at Tekkelakota. The houses were circular or oblong or rectangular on plan and the largest and smallest houses measure 5.5 m x 5 m and 3.3 m x 3 m respectively. Hearths formed common feature inside the structures and at Tekkelakota and Sanganakallu, ‘bin rests’ were also recorded. The cultural material recovered from the structures include pottery, ground stone celts, chipped blades, querns, mullers, pounders etc.

The ceramic products changed considerably in this period. The pottery was predominantly handmade atleast in the early part of this period, but however, in the latter period, there occur specific evidences for the introduction of turn table. The red, black and chocolate wares decrease considerably and finally disappeared. The brown ware occurs abundantly along with grey ware. Buff ware, however, persisted. In the surface treatment slipped and burnished sherds begin to occur in large numbers. Most of the sherds were made on levigated clay and finished usually by uneven firing which has resulted in steep rise in bloacky surfaces. The other feature was the prolific use of anvil and dabber techniques in the preparation of the pots. Looting the rim portions to the body portion of the pot after they were made separately was another new feature.

The pot forms of early tradition continued with an exception to legged dish/bowl and the new introductions were high necked vessels bowls with everted
or out-turned rims, dishes basins and lids. The handles and lugs occurred in large numbers. Tubular spouts, channel spouts and lipped bowls occurred for the first time. Hallur, T. Narsipur and Hemmige provide terracotta ‘head rests’, yet another new feature of the period, for which there were no parallels in India (Nagaraja Rao, M.S.1970: 141-48).

Regarding the painted ware, black painted red ware of earlier tradition discontinued from all the sites expect Palavoy where the same continued till the end of Neolithic age. The red ochre pained were however, continued without any change either in decorative motifs or in painted designs. Incised, finger tipped and appliqué designs proliferated. By the end of the period there occur brown-and-black wares attesting close similarities with black and red ware of Megalithic period.

The ground stone tools are extensively prepared and this was stratigraphically documented at Brahmagiri where out of 15 complete and 29 broken edge tools collected from the site, 14 complete and 25 edge tools were from this phase. Palavoy, Sanganakallu and Piklihal were the other sites where prolific occurrence of edge tools were recorded. The sites like Hallur, T.Narsipur, Paiyampalle and Hemmige though rich in ground stone tools, were devoid of raw material and unfinished tools in the strata. This led the excavators to think in terms of trade contact with the tool manufacturing centers. The Adze and the chisel which are generally considered as a carpenter’s tools are found for the first time in the ground stone assemblage.
The differential distribution pattern as evidenced in the ground stone tools in the early phase and the succeeding phases is also apparent in a stone blade assemblage also. Here also Brahmagiri provides an important piece of evidence and out of 80 microliths recovered from the site are from this phase only. Not only at Brahmagiri, at several other sites like Piklihal, Tekkelakota, Hallur, Sanganakallu, Hammige this is represented by large number of microliths. T.Narsipur, Palavoy and Paiyampalle, the chipped stone industry was very limited and it is attributed due to the paucity of raw material. Blades were the dominant feature of the industry and at Malki the blades were 5.5 cms in length. Other tool types include scrapers, points, launtes and trapezes. The creted guiding ridge technique was known to the Neolithic folk.

The information about the disposal of the deed is prolific in this phase. The dead were buried either in urns or in pits. The infants were buried in urns preferably under the house floors itself where in the skeletons were tightly folded in an embryonic posture to fit the restricted space inside the pots. The adults were buried in oblong pits usually outside the house. At Tekkelakota these pits were roughly measured 1.60 m long, 0.45 cms broad and 20-40 cms deep.

Two types of pit burials were in vogue i.e. complete inhumation and fractional burials. The skeletons were laid in extended position, usually to their back with a tilt of the head either to right or left. The orientation was south north but not in all cases. At Tekkelakota three adults were buried in a single pit, and this event is attributed by the excavator to communal burial. Some of the burials
at Tekkelele Kota were covered from head to the extremities by flat granite boulders. The funerary offerings varied and include grabuler vessels, lipped bowls, spouted bowls, Bronze and copper implements, ground stone tools microliths etc.

Copper was introduced in this period and seems to have reached to all the sites. However, its impact on the neolithic economy was very limited and hence Neolithic folk of this period mainly persisted on stone and blade implements.

The finished state of the implements recovered at some of these sites suggest that the tools might have reached to there sites either by trade or cultural exchange. Palavoy provides the earliest evidence of copper in South India and the carbon\textsubscript{14} obtained provided the date of 1965±105 B.C. (Reddy, V.R. 1976:119). At Hallur, the earliest date is 1710±105 B.C., T. Narsipur 1805±110 B.C., and Tekkellakota 1780±105 B.C. If an average date is taken into consideration, 1800 B.C. would suit the occasion. The copper tool types of this phase were very limited and include cells, rods etc. Added to copper, there were evidences for gold ornaments from T. Narsipur and Hallur.

The economy of the people was mixed one and mainly based on food gathering and food production. The wild animals that were hunted include spotted deer, rat, antelope, hog and gazelle. Shellfish was another dietary feature of the people. Added to these, the remains of domestic animals like ox, bufalow, sheep, goat dog and cat were also recorded in this period.
Regarding the agriculture, Hallur provides the earliest evidence for cultivation of Regi (Eleurine coracana) while Tekkelakota provides the evidence for horse gram (Dolicos biflorus). Evidence of both these species besides that of green gram (Phaseolus radiatus) was also found at Paiyampalli in Tamilnadu (Rao, S.R. 1967-68:26-30).

4. LATE PHASE:

Around 1400 B.C. or so, there appeared yet another cultural movement possibly from Deccan Chalcolithic cultures of north west which are contemporary culture of South India Neolithic. This is represented by Jorwe culture which along with its wheel thrown black painted red sherds and other cultural traits intruded into South Indian Neolithic culture. (Allchin F.R. & B.1968) The main features of the movement are recorded in Tekkalakota Ib, Hallur Ib, Piklihal late levels of upper Neolithic, Brahmagiri late levels. Sanganakallu II, T.Narsipur Ib, Hemmige Ib, Paiyampalle Ib, and IIb of Palavoy.

This period had witnessed drastic changes in the ceramic industry. The grey and pale grey wares decreased considerably and gave way to brown, dull red and brown and black wares. The pottery tradition displayed a degeneration and the coarse gritty fabric was more prolific. The red ochre painted ware of earlier tradition either diminished or completely vanished from the ceramic products. Slow wheel thrown sherds, prolific though there occur handmade sherds alongwith.
The turn table made black painted red ware akin to that of jorwe ware occurred from all the sites of this phase in a limited quantity. The painted designs include horizontal or vertical bands, criss-crosses, etc. The pot forms of the previous phase continued besides new introductions like globular vessels with out-cut rims, tubular or long spouts etc. The ground stone tools and microliths exist as in the previous phase. Beads also occur without much variation either in the raw material or in shapes as that of previous phase. However, the new introduction was terracotta beads at Brahmagiri and Tekkelakota with 2 and 5 respectively.

The copper objects were prolific when compared to the preceding phase. These were small in size and comprised both rods and pins. At Piklihal a broken miniature copper bowl occurred whereas at Tekkelakota there were four objects viz., a spiral, a wire, a ring and a nail head. Hallur has produced three objects of which one was a fish hook, while remaining two were miniature axes. At Brahmagiri a bronze ring was recorded. Paiyampalle is the only site where not even a single copper bit was recovered. The significant feature of the phase is the absence of smelting of metal as all these copper objects were recovered in finished form and no evidence was obtained in finished objects or copper slags. Hence the excavator’s believed that these were exhotic objects and came to these sites either by trade or cultural exchange.

As for the disposal of the dead, the traditional methods of previous phase continued. The new evidences were double and multiple pot burials. In the
double pot burial, the pots were kept mouth to mouth and generally infants were buried in extended posture. The funerary offerings were very rare as evidenced at Hallur, Tekkelakota, Palavoy, T. Narsipur and Brahmagiri. In a multiple pot burials at Tekkelakota, 4 urns were used in which the skeleton was buried in extended posture and in North South orientation. Rich funerary offerings were recovered from this burial and it includes 9 pots of various sizes and dimensions. At T.Narsipur a skeleton is found in a cradle shaped pit covered either sides by two post holes which might have been used for a roof over the burial. At another instance at T. Narsipur, the skeleton is found without ankles which was interpreted by the excavator as a deliberate act upon the people to keep the spirit within the grave.

The economy of the period mostly depended upon the production of food grains and domestication of animal. However, there are evidences of hunting and fishing as well. The faunal remains of ox, sheep, goat, buffalo, dog were found in large numbers in the excavated sites. The cultivation of ragi, and horse gram as evidenced in the previous phase seems to have continued in this phase also. Besides these, Paiyampalle provided yet another evidence of the cultivation of green gram (Phaseolus radiatus).

MEGALITHIC AND EARLY HISTORIC PERIODS:

One of the problems of Megalithic period in Indian context is their habitation pattern. In the absence of any clear evidence, it is difficult to describe
their settlement pattern. However, based on the limited evidence the generalized pattern is that they lived in permanent settlements in the form of villages. Their settlements are located on the margins of water bodies like ponds, tanks and river courses. Their houses are mostly circular and occasionally rectangular or oblong on plan with a stone or kankar paved floors, thatched roof supported by wooden posts on mud walls. The period was witnessed by mixed economy of hunting and food production and more so identified with black and red pottery and iron implements.

**ORIGIN AND SPREAD OF MEGALITHIC CULTURE:**

There are several divergent views on the origin of Iron which is generally associated with Megalithic culture. Although these view points are entirely not clear, majority archaeologists and Matellergists believed that the smelting of iron in India was very late date. Thus Gordon (1950) could find no evidence for the use of iron in India before 250 B.C. and wheeler (1959) held that India received the necessary knowledge only C. 500 B.C. Another school of thought suggested on the contrary that South India might have been the home of the world’s first discovery of iron working. Needless to say, such extreme views are quite unacceptable; between them the more acceptable view is that of Benerjee (1965) who held that iron working in India began as early as 1000 B.C. and became more common around 800 B.C. In this connection, it may be accepted Benerjee’s view point for the evidence for the development of the working and utilization of iron without any preconceived hypotheses.
The initial spread of iron working certainly coincided with more or less rapid disappearance of stone or copper-bronze axes from the tool repertoire, no doubt on account of their being relatively less efficient and more expensive to make. Also, it can not be denied, it coincided to some extent with parts of currency of the cultural traits mentioned above, but in general view this need not imply any one-to-one relationship between them. While there are still few satisfactory dated horizons for the early use of iron, it can be believed that it is premature- if not pointless – to attempt to demonstrate any single pattern of spread, either from north to south, west to east or vice versa. The aim, therefore is to record the patterns as it appears regionally, in relation to broader cultural features, following the general plan of starting in the west, in Pakistan, then moving east across the Gangetic plains and then south through Central India into the peninsula.

The situation is more clear and definite in South when compared with other parts of India. The excavations at Brahmagiri (wheeler (1948) Pikhlihal (Alchin 1960) Sanganakallu (Ansari Z.D.; and M.S. Nagaraja Rao (1969) and Maski (Thapar, B.K., 1975) the depth of iron age occupation is generally less than four feet. More recent excavations at Hallur (Nagaraja Rao, M.S. 1971) Paiyampalle (Rao, S.R. 1968) yielded similar results. All all the above sites iron levels over lie the Neolithic – Chalcolithic period. Hence it is clear that the introduction of iron takes place at the close of the Neolithic and chalcolithic period.
This iron age period which is popularly known in South India as Megalithic period is dominated by burnished but unpainted black-and-red ware with accompanying red or black wares. There are indications that this period may ultimately be amenable to some sort of further division on the basis of grave and pottery types, but more research is called for before this can be achieved.

The Megalithic period has been termed as advanced iron using civilization. They had the expertise of extracting metals from ores. Iron and copper were extracted to the purest quality. Precious metals like gold and silver are also extracted but on low scale. The implements on Iron comprised tanged, shared javelin heads, arrow heads, hoes, spears, knives, daggers, sickles, axes etc. Some objects of both economic and decorative are also made on copper and bronze.

Megalithians mastered a wide range of pottery technology. Different wares were produced for different purposes. Black and ware was the characteristic of Megalithic pottery. This ware was produced by inverted firing technique, in which the inner surface and exterior edge around the rim becomes black while the rest of exterior surface turns red. The other ceramic types were black ware and red ware; the latter sometimes slipped with bright colours.

The funerary receptacles are thick in section, coarse in textures, hand made and ill-fired. There are many types of funerary receptacles such as urns and different types of sarcophagi (ram shaped, elephantoid and tub shaped). Pedestal
and footed vessels were also produced in large number. Except these funerary receptacles the pottery can be divided into tableware and cooking ware. The former include flat bowls, dishes and lotas, while the latter chattis, globular pots, pans, deep bowls with lids of conical and hat types.

The megalithic communities might have specialized some crafts and organized themselves into different professional groups such as smiths, warriors, carpenters, agriculturists, etc. The quarrying of huge blocks of stones for the burial activity indirectly suggests a collective and community effort. The heterogeneity of megalithic monuments suggests some social ranking among its practitioners.

MEGALITHIC TYPES :

The Megalithic name itself was derived from the word meaning ‘Big stone’ in which it is identified by the big stones were used during the burial process. There are several Megalithic burial types which are found in different areas of India and Andhra Pradesh. The burial types were classified into several types by V.D. Krishna swamy (1949a) depending upon their shape, size and contents. The burial types so far identified include,

1. Menhir
2. Stone circle
3. Dolomen
4. umbrilla stone
5. Hood stone etc.
6. Rock chambers
7. Sacrophagus and
8. urn Burials

B. NEOLITHIC OF ANDHRA PRADESH :*

A brief note on the Neolithic culture present at different parts of Andhra Pradesh is attempted in the following pages. On the basis of variations in the pottery and other material objects, the Neolithic culture of Andhra Pradesh is dealt in three geographical areas such as Southeran Coastal Andhra, Northern Coastal Andhra and Western Andhra.

1. SOUTHERAN COASTAL ANDHRA : (Neolithic Culture) :

Nagarjunakonda, (Guntur & Nalgonda Districts) (Subrahmanyam, R. et. al. 1975), and Kesarapalli (Krishna District) (Sircar, H. 1962) and Gandluru (Guntur Dt.) are the Neolithic sites in Central Coastal Andhra which were subjected to extensive excavations besides the stratigraphical scrapings at Gummaddur and Alur (A.S.I.; Pers. Communication) and Kondapeta Pallagiri and Peddapuram by the present writer.

Nagarjunakonda has revealed three phased development of the Neolithic culture. The earliest phase (Phase I) is revealed at site 45 of Krishna

* for the sake of continuity in the Neolithic tradition, salient features of the Neolithic Southeran Coastal Andhra have been is given here, though the detailed study of the region of Muneru river valley is the main theme of the work.
Valley. It is characterized by ‘rudimentary axes’, chert and quartz microliths and handmade small bits of grey, reddish and brown pottery. The pot forms are very limited and include globular vessels with flared rims, miniature vessels and a few bowls. Though the evidences for the faunal and floral remains are absent, on the basis of the presence of limited domestic food processing equipment such as querns and mullers, the excavators opened that the culture was primarily based on mixed economy. The presence of a large number of points and other chipped tools indicates that the people were experts in game.

With the onset of Phase II at Nagarjunakonda, new cultural elements which are in no way connected with Phase I are seen. The characteristic features discussed with Phase I of South Indian Neolithic in the foregoing pages viz., the settlements on tops of the castellated granatoid hillocks, burnished grey, red, chocolate and brown wares, pot forms such as legged bowls, footed vessels etc., limited crude axes and rudimentary blades are conspicuous by their absence in this phase and in their place prolific occurance of ground and polished stone tools, mullers, pounders and the pottery made on fine clay of fabric B in large numbers and the settlements adjacent to reverine setting or hill slopes are the important feature of this phase. The 3rd phase is represented by the limited presence of the phase two and again new traits came into exhistance. The pottery is essentially made on gritty substance of Fabric A with or without slip or burnish, the ground stone tools are found in limited quantity and mostly edge grinding and without obtaining shape by means of flacked or picked surfaces, the limited pot forms and
steatite disc beads and settlements as usual on the reverine setting. There are prolific occurrence of red, black and black and red wares mostly made on turn table etc. The very look of these material from the excavated localities gives impression that the cultural material of the phase is in deteriorating condition. The occurrence of black and red shades in Fabric A show the entry of new elements into the Neolithic – chalcolithic phase of Nagarjuna Konda.

The data collected from the 12 neolithic sites of Muneru river valley by the writer offer more similarities to the mature and late phases of South Indian Neolithic and phase II and III of Nagarjunakonda, which in course of time might have culminated into megalithic culture with iron implements wheal thrown Red, black and Black and brown wares and terracotta objects etc. The same is discussed in the following pages in detail.

SETTLEMENTS:

The settlements of Neolithic are confined to areas close to perennial water sources such as rivers and streams surrounded by fertile black cotton soils. Nearly 90% of the settlements of Neolithic culture in Muneru River Valley are of this kind. However, a few settlements (10% are situated close to the tanks which are formed due to the natural depression, where rain waters collect. The presence of meanders and water ponds close to the settlements might have provided enough water for drinking and irrigation even during the summer when the streams go empty. The aquatic and terrestrial fauna which is attracted by the water pools might have provided extra calories. Since majority of the megalithic and early
historic sites followed the same criteria of water sources as they existed in the same area continuously. A few settlements are seen away from the natural water sources probably on account of ecological conditions and technological developments such as iron implements prompted the settlements to do so. The continuous occupation of the Neolithic sites upto the early historic period unabated indicates that the Neolithic folk had successful living at these sites.

**DWELLINGS:**

The dwellings of the early settlers exposed at (in the excavated sites of) Nagarjuna Konda and Ganduluru* (both in Guntur district) show that there existed dwelling pits circular on plan with narrow mouths and wide interiors and flat bottoms scooped deep into gravelly morum.

These vary in size between 3.40 m x 1.54 m to 0.86 m x 0.23 m (diameter and depth) at Nagarjunakonda, while at Ganduluru between 2.40 m x 1.20 m to 1.54 m x 0.35 m. At both the places post holes were identified along the circumference – an indication to show that some sort of light roof was erected. A noteworthy feature is the presence of steps for a couple of pits. (Subrahmaniyam, R. et. al. 1975). Similar dwelling pits are also recorded in the Neolithic levels of the adjoining regions of Andhra Pradesh such as Veerapuram, (Sastry T.V.G. et. al. 1984:32) and Ramapuram, both in Kurnool district of

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* A Neolithic site being excavated by the Department of History & Archaeology, Nagarjuna University. (IAR 1983, 84 P. 1)
Andhra Pradesh. At Ramapuram the excavator (Narasimhaiah IAR 1981-82) divided these pits into 4 varieties on the basis of the material remains present in the pits such as 1. dwelling pits; 2. storage pits; 3. waste pits and 4. the water storage pits. Dwelling pits were not noticed at Kondapeta and Pallagiri of Muneru river Valley probably due to the limited digs.

At Nagarjunakonda side by side with the dwelling pits, there existed structures with prepared floors. These structures were apparently raised on wooden posts which are sunk deep into red morum. These structures are of two kinds – rectangular and round/oblong on plan. At Nagarjunakonda altogether 6 house plans were recorded. These vary in size between 5.28 sq. m. to 3.58 sq. m. Kondapeta and Pallagiri have produced unmistakable evidence for 2 structures, one each at these sites. The structure from Kondapeta is circular on plan and occupied an area of 3.5 sq.m. The post holes are arranged in double rows, reminiscent of the structures found at Hallur. At Pallagiri the structure is rectangular on plan and occupied an area of 3.8 sq.m. The floors for these structures is made up of rammed earth occasionally spread over by cow dung and lime. The cultural materials recovered from these floors include pottery, ground stone tools, mullers, and animal bones, querns, etc. Hearths are usually associated with these structures.

**ECONOMY:**

The presence of large quantities of faunal remains both domestic and wild from the excavated and explored sites indicate that the Neolithic folk of
Coastal Andhra were practicing mixed economy. At Kondapeta and Pallagiri the recovered bone fragments belong to domestic animals such as cattle, sheep, goat, dog and bones of wild animal such as wavy horned antelope, stag/deer etc. Molluscan shells of fresh water are also found in considerable numbers. These features indicate that the Neolithic folk of the region have hunted the wild animals and domesticated certain animals besides the use of shell fish for their dietary practices. The presence of charred bones belonging to cattle, sheep, goat from stratigraphical levels at Kondapeta and Pallagiri indicate that these animals were also consumed. The wavy horned antelope, deer and rabbits might have been hunted with the help of stone points which are amply available in the area.

The direct evidence for cultivation of food grains is not available from the stratigraphical levels at kondapeta and Pallagiri, or from the excavation at Nagarjunakonda, Kesarapalle and Ganduluru. But the very presence of a large number of domestic equipment such as pounders, rubbers and querns from all these excavated sites and the other explored sites from the Muneru river valley indicate some sort of cultivation for food grains.

SOCIETY:

Though it is difficult to visualize the Neolithic society of Muneru River Valley in the absence of concrete evidence, purely on the basis of the material remains a reconstruction of the Neolithic society is attempted. The presence of different traits such as pottery, ground stone tools, mullers, querns,
microliths, beads, mat/basket weaving, a couple of copper tools, domestication of animal and cultivation indicate that a kind of specialization of these traits is already invogue among the Neolithic folk. Obviously the preparation of the circular thin beads made on steatite might required specialists touch. So is the case with the copper axes which require much more higher technology such as the identification of the ores, extraction, smelting, forging and preparation of tools. Mats and other stone tools could be prepared during the leisure time, but pot preparation might require a fulltime occupation for a set of people. Similar is the case with cultivation which requires the knowledge of cultigens, seasons and the choice of the appropriate soil types. The above aspects cannot be mastered by each and every individual nor by all the members of a family.

Probably different traits such as pot making, mat weaving, stone tool making, bead making, metallurgy and crop raising were mastered and monopolized by different sets of people which in course of time became their traditional work. This social stratification appears to have been started during the Neolithic period. In this context, it may be mentioned that in the ethnographic data of present village set up, there will be a potter for a couple of hamlets who supplies the required pots to the inhabitants of those locii. So were the cobbler, blacksmith etc. This same system might have operated during the Neolithic times. Even if we consider that steatite disc beads and copper celts as exhotic objects, and reached the Muneru River Valley as a part of trade or cultural
exchange from elsewhere, then also it will not pose any difficulty in considering
the Neolithic society as a stratified society.

It is also likely that the presence of a couple of rare pot forms such as
dish/bowl-on-stand, spouted vessels, painted vessels and sophisticated miniature
thin vessels and luxury items like beads and copper objects were prepared
specially for a certain people who can afford to possess them – which in
other words brings into focus two different classes as well. At what juncture this
social stratification is started is hard to visualize, but on the circumstantial
grounds, it appears that it was a well established feature at the culmination of
Neolithic period and before the beginning of megalithic culture (Gururaja Rao,
B.K. 1983: 59-62). This statement are supposes that the roots of social
stratification are co-terminous with the evolving economic pursuits.

2. NORTHERN COASTAL ANDHRA :

Information about the Neolithic cultures of Northern Coastal Andhra
was first brought to light by Cammiade, L.A. (1924) and later from an excavated
site Jami (Ramachandraiya, O. et. al : 1976) and the other 25 recently explored
sites in Srikakulam Visakhapatnam, East Godavari and West Godavari districts by
Ame (1982). The surface sites in Visakhapatnam district are Kasipatnam,
Boyipalem, Marikavalasa, Madhuravada, Zoo area, Lankalapalem (Bhaskara
Murti, D. 1975); Naseem, A. 1982) and Paradesipalem (Reddy, K.T. 1976), - The
sites situated in East Godavari district are Bhupatipalem, Rampachodavaram, Nadivididi, Barangi, Jagarampalle, Polavaram, Sitapalle and Musurumilli – located on Sitapallevagu (Bhaskara Murti, D. 1984), and Yellavaram, Metlapadu, Uppalapadu, Marrivedu, Senapatipakalu, Labbarti and Lakkavaram – all located on the banks of Eleru river and its tributaries (Kasturi Bai, M. 1984); the sites located in West Godavari district are Lankapalle, L.N.D. Peta and Reddinagapalem – all located on Kovvada Kalva (Bhaskara Murti, D. 1984).

All these sites are located in a forest environment, across the hill flanks or closed valleys flanked by streams that flow across submontane plains of the Eastern ghats. None of the sites has shown even faint indications of a regular mound formation comparable to those of the South Indian Neolithic culture. But on the other hand, the sites are confined to sheet eroded areas of red soils wherein the artifacts occur as surface remains wherever the humus is missing. However, Jami is an exception by virtue of its location in the alluvial stretches of the river Ghostani. A critical examination of the artefactual data retrieved at Jami reveal that the cultural phase is short lived and not exactly analogue to that we see in the rest of Northern Coastal Andhra; probably the Neolithic evidence of Jami is more close to the succeeding megalithic culture than to the true Neolithic facies.

The Neolithic artefacts from Northern Coastal Andhra include pottery, ground stone tools, microlithis, mace heads and a few mortars and querns. The ground stone tools include shouldered adzes, chisels, etc. In length these tools vary considerably from one site to the other and from one tool to the other in the
same site. Except a few specimens from Rampachodavaram, the other specimens do not exceed more than 8 cm in length, and 2.8 cms in breath. The axes and chisels are bifacilly ground to straight and median cutting edges while the adzes possess a plano-conex cross sections. Interesting feature, however, is that majority of these specimens contained polished surfaces. As these tools are very short, it is highly difficult to assess the purpose for which these tools were prepared. Probably a considerable number of these specimens were resharpened several times consequent of which the size was reduced considerably (David Raju : 1979).

The mace heads which occur in majority of the sites are prepared in hour glass technique. These are oval or rectangular in shapes and mostly prepared on Khondalite and rarely on sand stone. The crypto-crystalline syllica materials such as agate, chalcedony and Jasper and crystal quartz formed the raw materials for the microlithic tools. The analysis presented by Bhaskara Murti, D. (1984(a); 502) indicate that the geometric tools are very meager in the industry, but on the other hand the specimens bear signs of retouch or use damage. Pressure flaking was the important technique employed. In general make up, the microliths associated with Neolithic culture are longer and cruder in workmanship in comparison to the microlithic industries of the area of present study i.e. Muneru river valley.

The associated pottery is handmade, brittle and hardly retain their full forms. It is coarse gritt tempered red ware and disvisible into two fabrics –
medium to thick and medium to thin, the former being predominant. Sand and quartz particles are predominately used in the body clay. The surfaces of the pot pieces show much erosion and hence the surface treatment such as slip and burnish is seldom seen. Bloachy sherds are in considerable number indicating the uneven firing. The recovered pot forms include lipped bowls, wide mouthed vases, globular vessels and a limited bowls etc.

The available data pertaining to the economic life of the people is very scanty. The faunal and floral remains are totally absent from these sites. However, the presence of a limited domestic equipment such as mortars and querns indicate some sort of agricultural activity. Probably, the hill flanks are exploited for slash-and-burn agriculture (podu cultivation) which is still being practiced in the agency areas of these districts (Bhaskara Murti, D. 1983).

The Neolithic evidences present in the North Coastal Andhra show the following features:

1. It is confined to the eastern ghats surrounded by thick forests.
2. The absence of habitational mounds indicate that the authors were semi-nomadic.
3. The absence of faunal and floral remains at the sites show that the economy is still primitive and confined to hunting-and gathering.
4. The presence of coarse tempered gritty redware, quadrangular celts, shouldered adzes, maniature celts and associated microliths provide a close comparison with Eastern Indian Neolithic culture revealed at Kuchai (Thopar, B.K. 1961-62:36) and other parts of Orissa, Bihar and Bengal.

5. And the sites present in the eroded red sandy soils are chronologically earlier to the sites located on the alluvial flats.

3. WESTERN ANDHRA:

The western Andhra does not present an uniform picture of Neolithic culture as that of Muneru River Valley and Northern Coastal Andhra. It has presented two distinctive cultural traditions, the north-western and south-western Andhra as River Krishna as the boundary. Utnur is the type site in northern western (Allchin, F.R. 1962) which showed close similarities with the South Indian Neolithic Phases I and II and III for which a detailed discussion is already given in the foregoing pages.

The South Western Andhra Pradesh new cultural elements like black painted redware, copper objects etc., along with the other common Neolithic features.

The South Western Andhra is comprised of 4 districts – Kurnool, Chittoor, Cuddapah and Anantapur. The exploration conducted in the region by Foote, R.B. (1916), Reddy, V.R. (1968) and Sarma, I.K. (1967, 1968) and Subbaiah P.C. (19 ) has brought to light a large number of Neolithic sites. The
cultural objects indicated that the Neolithic culture of the region is essentially a ‘pointed butt axe type’ present at Piklihal, Sanganakallu, Hallur and Tekkelakota etc., but with a dominant new elements such as black painted redware which is not very much associated with the former. This new feature was first brought to light by Foote, R.B. (1916) at a site known as Patapadu and hence called it as Papatapadu painted pottery or Patapadu complex. Two sites known as Palavoy (Reddy, V.R. 1976) and Ramapuram (Narasimhaiah, B.I.A.R. 1980-81) were excavated systematically while singanapalle (Rao, S.R. I.A.R. 1967-68) to a trial testing – to find out the chronological and cultural affinities of black painted redware with in the Neolithic culture of South India. These excavations though clarified the chronology of the culture, but failed to provide information about the origin of black painted red ware since at all these sites the black painted redware is associated with other wares such as burnished grey, buff and brown wares from the earliest layer onwards till the end.

The dwellings of the Neolithic folk in South Western Andhra Pradesh were confined to flat areas of cassetelated gratetoid hills. The evidence of plant remains of Acacia (Tumma) or Dalbergia and Zizyphus (Regu) species from Palavoy excavations suggest an arid topography and dry climatic conditions when the neolithic people lived. The rainfall is very scanty and do not exceed more than 700 mm an year. However, the presence of deep black cotton soils and a network of wet weather streams might have provided the congenial atmosphere for the Neolithic folk to settle in the area.
They raised the structures on wooden posts. At Palavoy the flat turaces on the hills were leveled and were used for habitation. Occupation was however not confined to enclosed areas within the hills but also to plains abutting the streams as in the case of Ramapuram and Singanapalle. At Palavoy the floors were made of pale brownish soil mixed with sand. The houses were of square or rectangular. Besides these Ramapuram has yielded the evidences for dwelling pits as well (Narasimhaiah, B., I.A.R. 1981-82:3).

The economy of Neolithic folk of Western Andhra was mixed one and includes hunting, fishing, primitive agriculture and pastoralism. No direct evidence is forthcoming about agriculture from any of the excavated or explored sites in South Western Andhra, but the very presence of a large number of mullers, querns, mortars from the sites indicate that some sort of agricultural activity was in practice. The presence of achlosed fusing of carporal II and III of domestic cattle at Palavoy (Rami Reddy V.R. 1976) was taken as an indication of their regular use in cultivation and drout work. The presence of the charred faunal remains both domestic and wild from the excavations at Ramapuram and Palavoy indicate that these animals were used for eating purposes as well.

**TOOL TECHNOLOGY:**

Edge ground stone axes, mullers, querns, sling stones and microliths are the usual stone artefacts associated with the sites of the region. They show close similarities with the other South Indian Neolithic sites as per the raw
material, techniques of preparation and typology. Besides these Palavoy has yielded a large number of bone tools. These comprises of axe heads, blades, points and a punch and a chisel, roughly accounting for 25% of the total tools which is again an uncommon feature in South Indian Neolithic culture (Reddy, V.R. 1976). Though the smelting of copper is absent at Palavoy, it is not devoid of copper objects. A solitary copper arrow head from palavoy is taken as an import from outside. Ramapuram (IAR 1981-82 :3) on the other hand has yielded a large number of copper objects such as bangles, armlets, coiled wire, beads razors etc.

POTTERY:

Pottery is predominantly handmade. There are three distinct wares at Palavoy and Ramapuram – blotchy grey, dull red and black-on-red wares. It is often sub-divided into several sub-shapes on the basis of surface treatment, technique of preparation, shape and decoration. The blochy grey and dull redwares are plain and often contain the decorations such as incised, finger tipped and appliqué etc. The walls are medium to thick and show finger impressions. The black painted redware occupies 11% from the total sherds from Palavoy. The fabric is hand made: burnished and at times gives the impressions of salt glazing. The common shapes are globular pots, slightly carinated pots, basin pan, lipped bowls and a few ordinary bowls which are also characteristic of blotchy grey and dull redwares. Excepting a high cylindrical necked vessel and vertical narrow necked pot comparable to similar types from Piklihal and Tekkelakota.
respectively, the rest of shapes are unique of Palavoy (Reddy, V.R. 1968). Similarly the comparable painted motifs are simple, horizontal and vertical bands, criss-cross or lattice and diagonal lines, while the designs likes zig-zag, chevrons, loops etc., are unknown at other South Indian sites. The comparative analysis of the painted motives of black painted redware of South Western Andhra Pradesh with the black painted redware of Malwa and Deccan chalcolithic has brought to light a commendable differences between them – suggesting a local origin (Subrahmanym & David Raju, 1979:517-61).

**ORNAMENTS AND OTHER MATERIAL OBJECTS :**

The shell and steatite disc beads figure at all Neolithic sites. Ramapuram has yielded a large number of steatite beads in various stages of preparation along with the raw material. This has taken as an indication by the excavator to think in terms of local manufacture of beads. Added to that steatite is locally available in the Vempalle formation of dolemites in Kurnool and Anantapur districts. However, Allchin, F.R. (1960:111) is of the opinion that they were brought to the Southeran Neolithic sites from Indus valley by itinerant peddlars. A terracotta object probably a bull from the surface at Palavoy indicate a close similarity from the other South Indian Neolithic sites. Red ochreous rock paintings of a tortoise and deer from Adoni in Kurnool and rock bruisings of a pair of face to face standing bulls from Velupumadugu in Anantapur district indicate the artistic taste of the Neolithic folk (Reddy, V.R. 1979).
The burials of Palavoy and Ramapuram also show close similarities with the South Indian Neolithic. At Palavoy 4 urn burials of infants came to light. The burials are either consisted of a single pot burial with a lipped bowl or two pots kept to face vertically.

Antiquity of black painted redware of South Western Andhra Pradesh is difficult to predict. Only a solitary C\textsubscript{14} date at Palavoy pushes back its antiquity to 2000 B.C. while the cluster of C\textsubscript{14} dates at Ramapuram show that the settlement at the site is later and started around 1600 B.C. S.R.Rao (1968:6) who put a few trial digs at Singanapalle felt that the black painted redware of Patapadu and its surroundings might have started around 1500 B.C. if an average date is taken into consideration, the antiquity of this Neolithic culture yielding black painted redware of South Western Andhra might be around 1600-1000 B.C.

MEGALITHIC CULTURE:

The review of literature on megalithic culture bearing sites of Andhra Pradesh has revealed that a total of 167 sites came to light so far along the length and breadth of Andhra Pradesh and of which as many as 37 sites are found in Krishna, Khammam and Warangal Districts alone*. These sites are located in different microenvironments or habitats. They are located either on the bank of a river, at the foot of a hill, in the agriculture fields, on the roadside, on top of a hill, or at lake margin etc., have been arrived purely on the basis of the description of

* See Appendix
the investigators. The plurality of types at site level suggests that the site would have been used at different time scales, presumably with different traditions. In the absence these propositions the other would be coexistence of different ethnic groups by utilizing the same site for the erection of memorials. In that case one need to expect the plurality of society, but we are afraid it may not exist at that point of time. In such a case the evolution of megalithic types on temporal scale is warranted.

Since the megalithic monuments known from the 37 sites of Krishna, Khammam and Warangal, the area of present investigation show a wide range of types with minor variations, a regrouping of types has been made based on major characters of affinity. A total of six major types and combination of these six types into further eleven groups are calculated taking into account the presence of structures at site level.