CHAPTER V.

Present Explorations and Excavations

In the preceding chapter a rapid survey of the explorations and excavations have been made. Although broad similarities in the cultural equipments were noted between the northern and southern Deccan, fresh excavations were needed to have chronological continuation, and also to further establish the cultural interrelationship. Therefore, fresh explorations to find suitable sites for excavations were necessary. Hence, a thorough survey of the Tungabhadra upto its confluence with the Krishna was carried by the author, a part of the field survey.

A. EXPLORATIONS

As already mentioned the left bank of the river Tungabhadra, as it meanders in the Dharwar district was surveyed and a number of sites located, when the writer was an official in the Archaeological Survey of India. Among these sites, some had yielded antiquities of neolithic-chalcolithic character. The present field survey


was begun by the author (as a Research Scholar of the Deccan College), with a re-survey of a couple of sites in the Dharwar district. Further explorations were continued following the river, in the Bellary-Raichur districts and a number of sites located.

In the following pages a brief account of each site is given. Some of the sites showed their occupation from the neolithic to the early historic period, while others only during the early historic period.

HALLUR (Tq. Hirekerur, Dist. Dharwar)
Lat. 14° 21' N : Long. 75° 38' E. 1" Map. 48 N/11.

The village is situated on the left bank of the river Tungabhadra. The ancient mound located to the north of the village is divided into two parts. The southern part of the mound shows its occupation during the medieval period represented by the construction of a mud fort with a moat cut around (Pl. XVI). The northern part shows a well preserved deposit of about 20 feet, except the upper portion which is disturbed by cultivation.

The antiquities collected from the surface of the mound include the following:

(i) Polished stone tools, such as axes
adzes, chisels, wedges etc., made on basalt.

Tools of blade industry were conspicuous by their absence except for a fluted core of black quartzite.

(ii) Pottery which could be classified into the following wares: (a) Grey ware - both coarse and burnished; (b) All black ware; (c) Black-and-red ware, with a white painted variety; (d) Russet-coated painted ware; and (e) the red slipped ware.

(iii) The terra cotta objects found are edge-ground sharpeners and unpierced discs.

Besides these, a number of tools of Old Stone Age, such as cleavers, handaxes and pebble tools were collected in the adjacent area.

FATEHPUR, (Tq. Ranibennur - Dist. Dharwar)
Lat. 14° 25' N; Long. 75° 38' E; 1" Map. 48 N/11.

The site is very much destroyed by constant cultivation. The antiquities collected from the site are; a polished stone axe, a fluted core of chalcedony and a small quantity of pottery of the Early Historic period.

MUDEBNUR (Tq. Ranibennur, Dist. Dharwar).
Lat. 14° 23' N; Long. 75° 43' E; 1" Map. 48 N/11.

The village is situated at the confluence of
the rivers Kumudvati and Tungabhadra. Three sites were located within the revenue jurisdiction of this village.

One of these sites situated to the northwest of the village is an Early Historic site and yields a large quantity of black-and-red ware, russet-coated painted ware and red slipped ware, which are usually found in the Satavahana levels of excavated sites of the region.

The other two sites are situated on the bank of the Tungabhadra and are disturbed because of cultivation. The antiquities collected are, a fluted core of chalcedony, a polished stone axe and pottery, consisting of the following wares: Grey ware; black-and-red ware; and red slipped ware of the Early Historic period. Some of the bowls of grey ware were decorated with applique design of the head of cow or bull.\textsuperscript{131}

\textbf{NADIHARALAHALLI (Tq. Ranibennur, Dist. Dharwar )}

Lat. 14° 34' N; Long. 75° 49' E. 1" Map. 48N/14.

The habitation site of this site is located to the south of the village, on the bank of the river Tungabhadra. It is cultivated and therefore, much disturbed.

\textsuperscript{131} Ibid., fig. 1, Nos. 7-8.
The antiquities collected are: a number of polished stone axes, and pottery. The following wares were found. Coarse grey; Coarse brown-and-black ware; Black-and-red ware; russet coated painted ware and the red slipped pottery.

BELUR (Tq. Ranibennur, Dist. Dharwar).
Lat. 14° 43' N; Long. 75° 46' E. 1" Map. 48 N/14.

The site situated to the north of the village is much disturbed because of cultivation. A large quantity of burnished and coarse grey, besides pottery of the Early Historic period, were found.

HADARGERI (Tq. Ranibennur Dist. Dharwar)
Lat. 14° 45' N. Long. 75° 43' E 1" Map. 48 N/10.

The present village itself is situated on the ancient mound. Part of the mound is cultivated. The antiquities collected are as follows:

(i) Polished Stone axes. 15, all made on dolerite.
(ii) Rubber stone 1.
(iii) Pottery: (a) Grey ware - burnished and coarse varieties; (b) painted pottery; (c) Black-and-Red ware; (d) All black ware; and (e) Red slipped ware.

The grey wares consisted of coarse and burnished varieties, the latter having perforated vessels too.
More than a dozen sherds of painted ware was found. These had a cream or buff or dull red slip, and were painted in black with geometric designs, which consisted of horizontal, wavy and curvilinear bands.  

These are comparable to the painted wares found at Brahmagiri (surface collection), Sanganakal, Maski and Piklihal (AB ware) and appear to be the local variation of the Jorwe painted fabric.

The other pottery are the usual Early Historic varieties.

(iv) Beads - 2. One of carnelian and the other, arecanut shaped terra cotta bead.

The other sites which yielded polished stone tools, grey ware of the neolithic complex and Early Historic pottery are Madapur (14° 46' N, 75° 35' E, 48 1/9), Kunbeh (14° 40' N, 75° 35' E, 48 1/10), Niralgi (14° 56' N, 75° 39' E, 48 1/2) and Sattur (15° 10' N, 75° 31' E, 48 1/12).

Madapur yielded a few sherds of black-on-red painted pottery comparable to the Jorwe Fabric. Otherwise,

---

132. Ibid., fig. 2 and pl. II, Nos. 6-17.
133. Latitude, Longitude and reference to 1" Map respectively are mentioned in the parenthesis.
all the sites have yielded polished axes and grey ware pottery.

Another site which is to be mentioned here is Hosritti (45 N/9). Here a fluted core of chert, with double-facetted platform, was found.

The above sites were discovered on the left bank of the river Tungabhadra, when the writer was an official of the Archaeological Survey of India. This was continued when he took up the survey as a research student and the following sites were located, in the districts of Bellary and Raichur.

CHIKRALI PUR (Tq. Gangavati Dist. Raichur).
(Not shown in 1" Map).

This is a deserted ancient site, two miles to the northwest of the village Anegundi, opposite Hampi, the famous Vijayanagar. It is a 'terrace' or 'linchet', locally called 'Vanake Khindi' as surrounded by granite boulders around. At the northern end of the site is a large rockshelter. The rock faces of this shelter contain

---

135. The site was independently noticed by Sri. A. Sundara of Archaeological Survey.
paintings executed in red ochre, depicting bulls and human figures in stylised forms.

The habitation site in front of the shelter measures 200 feet x 150 feet and the thickness of the deposit appears to be only 2½ feet, as the exposed rain gully shows.

The following antiquities were collected from the site:

(i) Blade Industry: Fluted cores and parallel-sided blades with marks of use, of chert of various colours are found.

(ii) Pottery: Pale grey ware, burnished black ware, and buff or dull red ware, all handmade and betraying the use of quartz powder mixed in the paste. Urns, spouted vessels and thick storage jars occur.

(iii) Fragment of a bull of terra cotta is another find.

The is important as it is a single culture site.

BELAGODUHALU (Tq. Hospet Dist. Bellary)

Lat. 15°26' N: Long. 76°36' E 1" Map. 57A/11

The ancient mound is situated to the northeast.

136. No polished stone axes were found by the writer. But Sri. A. Sundara collected two axes. Information by Sri. Sundara.
of the present village Belagodunalu, on the right bank of the river Tungabhadra. It is a narrow mound, approximately measuring 60' x 20', about 20 feet above the water-level. The cultural deposit appears to be about 6 feet, and undisturbed. It is being eroded by the river and a nala. Foote had collected a few polished tools and blades and pottery. 137

The writer's own collection included the following:

(i) A polished stone axe with a pointed but and ground, broken edge.

(ii) Microlithic blade tools, mostly made on chert, but a few chalcedony specimens also occur. A large number of flakes are also found. Two fluted cores, lunates etc., are among other finds.

(iii) Pottery from the site could be grouped as (a) Grey ware and (b) Early Historic pottery, mentioned above. The former include pale grey, burnished grey, orange or pinkish grey, with ochre painted variety. Perforated variety also occurs. The latter include black-and-red, Musset-coated painted ware and the red slipped ware.

137. IPPA Catalogue Raisonné, pp. 83-84.
NANDIHAl (Tq. Gangavati. Dist. Raichur)

Lat. $15^\circ 32'$ N. Long. $76^\circ 48'$ E Map. 57A/14

The ancient site is located to the north of the village situated on the left bank of the river. The upper part of the site is disturbed by cultivation. The following antiquities were collected.

(i) Two polished axes made on fine-grained basalt.

(ii) Blade tools of chert and chalcedony. A fluted core, and a fine point made on a crested guiding ridge flake.

(iii) Pottery belonging to the neolithic and the Early Historic. The former with pale grey and pinkish red wares, represented by urns, small vessels etc.

The latter consists of the red slipped ware with the sprinkler type of vessels.

(iv) The other minor antiquities include, (a) a carnelian hexagonal, bicone bead; (b) unpierced discs; and (c) a few pieces of shell bangle.

YABBAL (Tq. Gangavati, Dist. Raichur)

Lat. $15^\circ 27'$ N. Long. $76^\circ 36'$ E Map. 57A/14

The present village itself is situated on a mound at the confluence of a stream with the Tungabhadra. The mound is much disturbed by the earthgrabbers. The
following antiquities were found:

(i) **Pottery:** (a) Grey ware with ochre painted variety, (b) black-and-red ware of the Early Historic period.

(ii) A small copper bowl with straight sides and an almost flat base.

(iii) Edge ground potsherds.

At the periphery of the mound, near the river a number of pits with large pots were noticed. They contain bones and lime. Some of them were encircled with stones.

**KUSHTOOR (Tq. Gangavati, Dist. Raichur).**

Lat. 15° 27' N. Long. 76° 38' E 1" Map. 57 A/11

The present village of Mushtoor is itself situated on an Early Historic mound, on the left bank of the river Tungabhadra.

The pottery collected from the mound are (a) black-and-red ware, (b) russet-coated painted ware, and (c) red-slipped ware.

The circular pits with storage jars containing ash and lime, noticed at Yabbal, are also found on the
western fringe of the mound.

UDEGOLLAM (Tq. Shiraguppa. Dist. Bellary)
Lat. 15°32' N. Long. 76°48' E 1" Map. 57A/14

An Early Historic mound with an exposed large section on the right bank of the river Tungabhadra was located to the southwest of the village (pl A, 1). The site is now under cultivation. The surface collection of pottery include (a) Black-and-red ware, (b) Russet coated painted ware, & (c) Red slipped ware.

NALIVI (Tq. Shirguppa. Dist. Bellary)
Lat. 15°3' N. Long. 76°48' E 1" Map. 57 A/14.

The ancient site is located to the northeast of the present village. The following antiquities were found.

(i) Pottery consisting of black-and-red ware and the red slipped ware.

(ii) A carnelian bead.

LAKSMIPUR (Deserted village)(Tq. Shirguppa, Dist.Bellary)

This deserted village is an ancient mound (pl. B, 1), located in a small island in the middle of Tungabhadra, opposite the village Nittur. The site extends in an area
of 6 acres, and is cultivated. The antiquities found are the following:

(i) Two polished stone axes.

(ii) Burnished grey ware of handmade variety represented by Urn type of vessels.

Lat. 15° 42' N. Long. 76° 5' E 1" Map. 57 A/14.

The ancient site is situated on the right bank of the river Tungabhadra, at a distance of about a mile from the present village, to the north of the village. The following antiquities were collected:

(i) A polished stone axe.

(ii) Pottery consisting of (a) black-and-red ware; (b) russet-coated painted ware; and (c) redslipped ware.

Lat. 15° 48' N. Long. 76° 5' E 1" Map. 57 A/15.

A large mound (pl. B. 2) situated about a mile away from the present village, was located. Though the mound appears to be undisturbed, only a few antiquities of Early Historic and Medieval periods were available on the surface.
TEKKALAKOTA (Tq. Shirguppa, Dist. Bellary)
Lat. 15° 32' N. Long. 76° 53' E 1" Map. 57 A/14.

This large village, 3 miles east of the Tungabhadra, was surveyed by the writer as information was available that blades of chert were found on the granite hills in the neighbourhood of the village.

In the initial explorations on these granite hills, locally known as the 'Hunedgudda', (pl. I) seven open spaces or 'made grounds' at different heights, were located (pl. A 2-3). These sites were surrounded by castellated granite rocks all around. Later explorations brought to light as many as 19 such habitational made grounds (fig. 3).

The open spaces are characterised by a large number of polished stone axes, blade tools of chert and chalcedony, pottery mostly handmade, and a few wheel-made painted variety. Another noteworthy feature is the presence of a large number of boat-shaped, oval querns, and grinding grooves on the natural boulders.

While the localities on the hill showed least evidence of occupation in the Early Historic and later periods, two localities at the foot of the hill proved continuous occupation, upto the Bahmani period. In these
sites, besides the neolithic antiquities, early historic antiquities such as black-and-red ware, russet-coated painted ware and red-slipped ware were found. In one of the localities, called 'Bale Tota', at the foot of the hill, a Kannada inscription engraved on a natural boulder dated in Saka 943 (A.D. 1021) shows that the site was occupied during the medieval period.138

Besides this field survey, the writer visited all the excavated sites in the region.

B. EXCAVATIONS

After the field survey, it was necessary to correlate the surface evidence and find out their stratigraphic position on the one hand, and to compare the results of on the other. Therefore, fresh excavations was a desideratum. Two kinds of sites came to light from the explorations, viz., those on the granite hills and those on the river banks. Two sites were selected, viz., Tekkalakota in the Bellary district and Hallur in Dharwar. Accordingly excavations were conducted at Tekkalakota between November 1963 and March 1964, and at Hallur, in February–March 1965.

A summarized account of the excavations is given in the following pages.

EXCAVATIONS AT TEKKALAKOTA

THE TRENCHES

Excavations were carried out in that open space designated TKT. I. (pl. II a, fig. 3) and three trenches were dug by the writer. They are designated Tr. 1., Tr. 2A, and Tr. 5.

Tr. 1. measuring 20' x 20' (6.15 square) was laid in the centre of the locality and excavated completely up to basal red moorum. The thickness of the cultural deposits was found to be 43" (1.2 m). (pl. II b, fig. 4).

Tr. 2A, a circular locality measuring approximately 20 feet diameter, situated to the east of the main locality, was completely excavated and the average thickness of the deposit above basal rock was found to be 16" (40 cms) (fig. 5). This was probably a circular house. (pl. IIIa, fig. 8).

The results of the excavations conducted by the writer under the direction of Dr. Sankalia are published; see Nagaraja Rao, M.S. & Malhotra K.C., The Stone Age Hilldwellers of Tekkalakota, Poona, 1965.

After the initial excavations, the locality has been taken up for a horizontal excavation. Only the upper layers have been exposed in the one season's work. Further work is in progress. One trench was also dug at the foot of the hill which showed occupation from neolithic to the Early Historic period.
Tr. 5 in the south-eastern corner of the locality was dug and found that the natural boulder was sloping towards northwest as the deposit was more here (pl. III b, fig. 6).

CULTURAL PHASES & CHARACTERISTICS

Trenches 1 and 5 yielded evidence of two cultural phases whereas in Tr. 2A, represented phase I only. From the stratigraphy and cultural contents, the following distinguishing features were observed in the two cultural phases.

Phase I

This phase is represented by Layers 3 and 4 in Tr. 1, and 3, 4 and 5 in Tr. 5. The deposit of Tr. 2A represented only this phase. It is characterised by polished stone axes, blades of chert, chalcedony and rarely, occurrence of gold objects, beads of steatite and semiprecious stones, tools made on bones, and only one copper axe. The ceramic industry mainly consisted of grey ware, with its varieties - pale grey, burnished grey with or without paintings in ochre, - a brown ware and a buff ware. Fractional burials with or without burial appendage occurred.

Phase II

Represented by the layers 1, 1A and 2 in Tr. 1, and, 1 and 2 in Tr. 5, this phase distinguishes itself
by the occurrence of more copper objects, continuance of polished stone axes and blade industry and beads. The noteworthy changes in this phase are rarity or absence of the ochre painted ware and the paucity of pale grey, and the appearance of the new ceramic wares represented by the brown-and-black ware, dull red ware, with a black painted red variety, black-and-red ware, which is totally absent in the earlier phase, and particularly associated with burials. In one instance, a black-and-red ware bowl is painted in white, in the interior; Normal, extended burials with elaborate burial appendage, and multiple pot burials. Children were buried either in urns and/or directly under ground.

STRUCTURAL PHASES

Tr. 1 Structural remains are represented in this trench by a series of post-holes dug into the natural moorum, found at a depth of 42" (107 cms) below the surface, in the northwest corner of the trench. Only a quarter of a circle of postholes is exposed within the excavated area. These indicate a circular structure after reconstruction (fig. 7) with round posts of 3" thickness and at an interval of 9" to 11". The reconstruction shows that the diameter of this circular hut, to be 18 feet. Since the post-holes are dug into the natural red moorum this structure belongs to the earliest settlers of the site.

Tr. 2. Two structural phases could be distinguished from the deposit in this circular locality.
A. The structure of this phase was circular in plain. Since the basal rock was sloping in nature, the first inhabitants prepared a levelled surface by the filling the hollows and depressions by giving bedding of chips of stones with a sort of mud plaster (pl. IIIa, fig. 8). The thickness of the deposit and the diameter of the locality shows that it was a circular structure. The roof seems to have been conical and walls, nearly 4 to 6 feet, were made of bamboo-screens plastered with mud, as seen from the burnt daub with bamboo impressions (pl. Xc).

B. No debris of this phase is found. But a saddle quern oval in shape belongs to this phase as it is found on top of the earlier deposit. This shows that the people occupied this very temporarily.

These occupational phases also belong to the early settlers, or of Phase I of the site.

Tr. 5

In all four occupational phases were distinguished in this trench. Three of them could be ascribed to Phase I while the other one to Phase II.
I a. The earliest occupants of the site seem to have filled up the great depression with nibble stones and paved it with a lime floor, which was 1\(\frac{1}{2}\)" in thickness. Over this, rose a mud wall structure, the plan of which is not clear because the area dug was very narrow. When the structure collapsed, extraneous silt seems to have been brought again to make a level surface.

I b. The next occupation was on the layer of extraneous silt. This is indicated by a large flat semicircular stone in the northern part of the trench and a patch of lime floor, plastered again and again at least three times. The plan of this structure was not clear because the area dug was narrow.

I c. Remains of this structural phase are indicated by the presence of four flat topped stones which served as the bin-rests. Three such groups were noticed.

Occupational Phase II belongs to Phase II of the site. To this belongs the semicircular arrangement of large boulders seen in the middle of the trench, (pl. IIIb, fig. 9), representing a circular structure. Though it is not certain that these boulders actually supported the walls, that walls with plastered screen bambows, were there is attested by the presence of fragments of burnt daub with bamboo impressions. In the north-east corner
of the trench, a rectangular structure is indicated by a regular course of rubble-stones. On the western part were two groups of flat topped stones used probably as base for strange bin rests. In between one such group of four-flat topped stones, ten polished stone axes were kept. To this structure belongs the rectangular platform of backed clay, with rounded corners, to the west of which was a circular pot rest. (fig. 9).

BURIALS

Seven burials were encountered in the excavations of the author. Three of them in Tr. 1 and four in Tr. 2A. While Trench 5 was devoid any burials. Six of these burials - three adults and three children - belong
In the large scale excavations under progress, 11 burials in all - three child burials in urns and 8 adult burials - were exposed. Seven of the latter are extended ones, invariably provided with black-and-red-bowls and brown-and-black pots. The 6th one, burial No.4 in Tr. 53 (TXT.I) is a multiple pot burials. Here, 4 huge jars, were placed horizontally in north-south orientation, and were joined together by breaking the base of the middle pots. The skeleton which was placed in this urn-coffin was placed in north-south orientation, after exposure. The 4-pots have been laid carefully in a pit dug for the purpose. Around the coffin, as many as 9 vessels - bowls and black-and-red ware, globular pots of brown-and-black ware, small vase and small spouted pot of burnished ware were placed as funery goods. It is interesting that the base of the burial jars were having twilled impression of date palm mat, thus indicating that the jars were probably made by coiling or building method. The three child burials were in urns. One (in Tr. 57) was urn of brown-and-black ware, covered with another pot, and laid horizontally in the ground. While in another (in Tr. 39), copper bangles were found along with the remains of a child. Mentioned with the kind permission of Dr. Sankalia. See also, Sankalia, H.D., 'Stone Age Hilldwellers of South India', Indica, vol. 1, No.2, pp. 129-140, 1964.
Phase I. The earliest inhabitants who settled on the basal red moorum, dug narrow pits and buried the skeletal remains in them. These burials were fractional in nature. Usually long bones, and the skull were collected and buried in north-south orientation, in the pits over which they seem to have placed stones from skull to the extremities. Two burials were found in the red moorum very close to each other at a distance of 76 cms. The burial of an adult in the Tr. 2A, shows, lower, that normal, extended burial was also practiced in this phase.

Burials No. 1 (fig. 10)

A pit was dug into the red moorum and remains of three individuals have been interred. After filling the pit, boulders have been placed over the pit. There was no burial pots.

Two of the individuals in this pit, are represented by at least long bones, and the skull, where as the third one with only the fragmentary skull. Two of the skull placed to the north. One of the former was resting on its back on a flat granite piece. One of those two on the southend appears to be that of a female between 20-25 years of age, whereas the other, is aged 20 years, but the sex of whom is not clear. The fragmentary skull at the northern end is cut by a pit dug into the moorum and sealed by layer 4. Besides these bones, fragmentary
ribs and pelvic bones were also found in a disintegrated form. This seems to be a post-inhumation burial.

The arrangement of the bones in the pit shows an attempt on the part of the people who buried in placing the bones in the anatomical position.

Since the long bones of two individuals are buried together in a mixed form, it is difficult to ascribe these bones to any particular individual of the three interred. But the burial indicates the interring three individuals, probably of the same family together.

Burial No.7 (pl.IV a, fig. 10)

Just 76 cms to the east of the burial No.1, this burial of an individual was found. As in No.1 here also it was found that the dead was buried in a narrow pit and after interring it was filled and stones were placed over the pit. The skull was placed to the south and the long bones were arranged in their positions. To the left of the skull was a goblet of pale grey ware (pl. VI a, and fig.13f), painted with ochre at the edges of the rim, carination and the pedestal, and placed in an inverted position. The adult is a male aged between 20 and 25 years.

The placing of the boulders over the pit after
filling is worth nothing. To this day lower class people in the south place stones on the body of the dead and fill up the pit, as they believe the dead may leave the grave, particularly at nights. Similar custom is said to prevail among the sects of American red Indians and some tribes in Ceylon.\(^{142}\)

**Burial No. 5** (pl. IV b, fig. 11)

This burial was found in Tr. 2A, and oriented west - east. The dead was inserted in the narrow space between the upper boulder and the sloping basal rock. The adult, a male aged between 25 - 30 years, was lying on his right shoulders. The face was tilted towards south. The lower jaw was dislocated slightly, and the skull was crushed. The ribs and the vertebral column were found intact but very fragile. One arm, probably the right, was found below the ribs whereas the other was found stretched to the right of the body. One of the femurs, probably

\(^{142}\) From the personal observations of Dr. K.A.R. Kennedy of Carndlle University, and mentioned with thanks. Mr. Deramiyala of Ceylon informs me that in the neolithic burials, the skulls were smashed and a boulder was found on the skull. This is probably intentional or because of the weight of the stone.
the left, was found extending right into the crevice of the sloping rock. The other parts of the leg were missing.

Two vessels (pl. VI c, figs. 13 and 14d), a large urn which was completely crushed, covered with a large bowl with a short spout, both of pale grey ware, were found placed just above the abdomen. Since urns are usually associated with child burials and such big urns are not found as funerary furniture, it is difficult to ascribe these two vessels to the adult buried just below. Both these vessels were devoid of any skeletal remains of a child, but were on the body of the adult himself. Therefore, the possibility of their being placed as funerary appendage cannot be ruled out.

As opposed to the general practice of north-south orientation noticed in the site, this burial is oriented west-east. Further, it is found outside the house, under the rock. The reason for these departures is due probably to the fact that the inhabitants of the house did not like their dear one to be away even though dead.

Another important problem regarding this burial is its association with the phase I. Normal, extended burials, oriented north-south are the marked features of Phase II. This burial found outside the house, is also an extended one, unlike the secondary or fractional ones found in the red moorum. Therefore, if extended burials are taken
to be the marked features of the Phase II, this burial would have to be ascribed to Phase II. But the debris of this circular locality is assignable to Phase I on the basis of pottery and other antiquities. Further the two vessels found on the abdomen of the body are pale grey, the main ceramic of Phase I. Another important factor worthy of note is the absence of black-and-red ware, which is invariably associated with all the burials of Phase II as already referred to. All these evidences tend to prove that this burial should be ascribed to Phase I. Therefore, with the available evidence, it may be stated that both primary and secondary burials were practiced in Phase. This could be revised or confirmed when we obtain more data from the horizontal dig at the site in the coming years.

CHILD BURIALS

All the child burials were found in the circular locality Tr. 2A. One was found in the house under the floor of the house, buried in an embryonic position, while the other two fractional in nature, one of them in an urn, were found at the northern end.

143 Three more burials of children have been found in the large scale excavation ascribed to Phase II, as already referred to above (Foote Note No. 141 Supra p. 90). All the three are urn burials. One of them which contained a number of copper bangles is worth mention.
Burial No.3

A child buried in an embryonic position under the floor of the house; upper jaw and few other bones missing, probably disintegrated. Ribs, bones of both the extremities, clavicle and a number of carpals, metacarpals and phalanges were found. The child was 2 years old.

Burial No.4

A few fragments of bones of a body found in a grey ware urn with a ground stone axe. The urn was covered with a lid of burnished black ware (figs. 18a-b). The edge of the latter was painted with red ochre.

Burial No.6

A few bones of a child such as ribs, parts of the skull etc. were found in the debris at the northern end of the locality. Bones were too fragmentary.

Phase II.

Of this phase, there is only one example in the present excavations. 144

Burial No.2 (pl. Va fig. 12)

This was found in Tr. 1. in layer 3 sealed by 2.

---

144. As already mentioned 11 adult burials were exposed all belonging to this phase, during the large scale excavation.
It is of an adult female between 40 and 45 years of age, buried in a narrow oval pit in roughly north-south orientation. The body is in a good state of preservation but for a little deformation of the skull due to the pressure of the superimposed debris. The person is lying on her right shoulder, slightly tilted towards right. The face was turned towards west. A little away from the feet, to the south, were seven funerary vessels (pl. Vb). A flat stone was kept to keep the vessels intact.

The funerary vessels were arranged as follows: at the base were two black-and-red bowls of different sizes. The bigger one contained a small dish with incurved sides, also of black-and-red ware. Just above was another black-and-red ware bowl on either side of which were placed, a spouted globular pot of a dull red ware, and a globular pot of brown-and-black ware with roug~ened exterior. Below the spouted pot was the rim fragment of a globular vessel. The bigger bowl of black-and-red ware found at the bottom is painted with white in the interior with groups of five strokes.

**CHRONOLOGY**

So far five samples have been processed and dates
available for this site. They are as follows.

**T.F. 239 Neolithic period**  
Tekkalakota, Mysore  
Charcoal from Trench TKT-I, Tr. 1, Pit sealed by layer 4, Depth 1.35 m. Sample was given NaOH pretreatment.

**T.F. 237 Neolithic period**  
3395± 105 (3490±105)  
Charcoal from TKT-I, Tr. 1, layer 4, depth 1 m.
Sample was given NaOH pretreatment.

**T.F. 266 Neolithic period**  
3465± 105 (3565±105)  
Charcoal from TKT-II, Tr. 2, layer 2, dept. 0.18 m.
Few rootlets visible. Sample was given NaOH pretreatment.

**T.F. 277 Ash-pit. Tekkalakota**  
2220±105 (2285±110)  
Charred grains from Trench 4, TKT-3 WD, layer 2, Ash pit, depth 0.3 m. NaOH treatment was also given. Comment (H.D.S.): archaeological date uncertain as the sample is coming from an ash-pit.

**T.F. 262 Neolithic culture. Tekkalakota.**  
3460 ± 135(3560 ± 140)  
Charcoal from TKT-I, Trench 9, layer 1, Dept. 25 m.

A few rootlets were present in the sample. NaOH pretreatment was also given.

Thus the converted dates to B.C. would respectively be as follows.\textsuperscript{146}

B.C. 1540, 1615, 1730, 335\textsuperscript{147} and 1610.

The lowest layer of the locality FK I, where large scale excavation is in progress, provides the date circa. B.C. 1600, while that of FK II, a terrace about 40 feet below the former has a date circa B.C. 1780. Therefore, the neolithic culture at fekkalakota could safely be dated to the period between circa B.C. 1700 and 1550.

\textsuperscript{146} In calculating the dates, the dates provided in the parenthesis in TIFR Bulletins have been taken. These dates in parenthesis are based on the value of $5730 \pm 40$ years for the half-life of radiocarbon.

\textsuperscript{147} The sample comes from an ash pit of Early Historic period, characterised by black-and-red ware, russet-coated painted ware, etc., and therefore, the date is quite in order.
RESULTS OF THE EXCAVATIONS

From a study of the excavated remains\textsuperscript{148} remains the following picture emerges of the inhabitants of the site.

The neolithic folk arrived in this region sometime in circa 1700 B.C. and occupied the open spaces on these granite hills. These people, as seen from the study of the skeletal remains\textsuperscript{149}, were medium to tall, and represented mixed racial features of mediterranean and protoaustraloid. They chose only those hills which were castellated for, (i) the open spaces on them were free from rocks and they could utilise them for construction of structures and huts; (ii) the castellation around these open spaces provided natural fortification and protection; (iii) the natural rockshelters on these also provided temporary accommodation; and (iv) the valley around was available for cultivation.

The inhabitants seem to have first cleared the natural vegetation and filled up the crevices, and then constructed their structures to live in. The structures were circular (fig. 6). With wooden posts of 3" thickness


fixed at intervals. The walls were of screen bamboos plastered with mud and the floor too was plastered with lime again and again. The roof seems to have been conical and probably covered with either grass or twigs as is done today by the Boyars - a semi-hunting community (pl. XII, c). The houses were equipped with bim, with legs and placed on flat topped stones. The spaces in between were also made use of, to deposit stone axes, etc. The houses had pot rests and rectangular platforms of baked clay. Small oval lamps were used for lighting purposes.

The ceramics consisted mainly of hand made wares. The utensils consisted of at least seven kinds for storing, drinking and eating. Huge jars, with legs were used for storing grains. Globular pots of various dimensions seem to have been used for cooking, and other domestic purposes. Bowls and pedastalled cups, seem to have been used for eating and drinking respectively. Perforated vessels, were probably used for straining or steam-cooking purposes. Large jars and urns with flaring rims were used for burying the skeletal remains of the grown-ups and children respectively. Globular and spouted vessels of red ware, pale grey, bowls of black red ware, and burnished wares, were used to be kept as grave furniture, for the life after death.

The inhabitants were largely non-vegetarians,
as evidenced by the large quantity of animal bones. Cattle, sheep, deer, squirrels and rats seem to have formed main part of their diet. The finding of copper fish-hooks\(^{150}\) show that they might have been fishing in the adjacent Tungabhadra and eaten that. But the finding of charred grains\(^{151}\), identified as Dolichos biflorus and known as Huruli (Kannada), Kulath or Kulthi (Hindi - Marathi), Vulava (Telugu) and Kolu (Jamil), show that this must have been cultivated by the people. However, this could be used not as primarily food, but as a complimentary item such as sambar (curry) to be used with the main diet. Therefore, they might have cultivated either rice, wheat or any other millet. The presence of querns with boat-shaped deep depressions, rubbers and grinders, show that some grains were ground, probably after soaking overnight as is normally done today, to prepare bread (Roti, Chapati etc.). For this cultivation, the valley around and their cattle must have been put to use. Since cattle, goat etc., were also domesticated, their milk must have formed an important source of food.

\(^{150}\) Fish hook of copper was found in the large scale excavations. Mentioned with the kind permission of Dr. Sankalia.

\(^{151}\) The grains were found in the large scale excavations, in TKT.II, Locality. Mentioned with the kindness of Dr. Sankalia.
The main tools mainly consisted of stones. They were two-fold. One was the ground stone tools and the other miniature blade tools. The ground tools were prepared from the basalt available in the region. The main type of tools were polished, edge-ground axes, chisels, adzes, picks etc. From the availability of large number of tools shows that wood-cutting or splitting activity.

The other major variety of tools is that of the silicious materials. These are mainly parallel-sided blades, lunates, penknife blades, serrated blades and points made largely on chert and chaledony. They seem to have been used by hafting and making composite tools. A number of bone tools have been found (pl x.a), of which chisel ends, points are worth mention. Metal tools are rare, and is represented by one heavy copper axe which seems to have been sparingly used (pl. ix b). Fish hook and chisel-cum-poker are the other tools to be met with. 152

The main occupation of the people seems to be domestication of animals, particularly cattle and primitive agriculture. Hunting and fishing also seems to have been in vogue. Many impressions found at the base of the two

152. These are found in the large-scale excavations.
of the huge jars of the four-pot-burial show$ that the people also knew mat-weaving.

The sense of aesthetics and love of weaving ornaments are indicated by the occurrence of heavy gold ornaments (pl. IX,1,2 fig. 30, a,b) — ear-ornaments or pendants —, a large number of beads of shell, steatite and carnelian (pl. IX,c). This also showed the proficiency of the folk in the manufacture of beads.

Lastly the burials show the faith and belief of the people. The very fact that buried the dead and not cremate or dispose them of in any other way, indicates that they believed in the life after death, and possibly rebirth. This gains more ground from the fact that the dead was provided with a variety of vessels — globular pots, spouted vessels, bowls of different dimensions — which was meant for use in the life after death. This also probably meant ancestor worship. Further the children were buried in urns or under the floor, in embryonic posture. In this connection, the shape of the urn which resembles the belly of a pregnant woman, might indicate that the child interred in it, was given a symbolic reentry into the womb of the mother.153

153. Observation by Sri. K.C. Malhotra, and mentioned with thanks.
The repeated depiction of bulls, in paintings, carvings and punctured decoration etc, might also indicate the worship of these animals.

EXCAVATIONS AT HALLUR 154

Hallur is situated on the left bank of the Tungabhadra, and is the last village in the southern tip of Dharwar district. It is known as Vijayapura or Vijayasamudra in the inscriptions and was the war camp of Hoysala Viraballala III during his military operations with the Chalukyas.

154. The excavations at this site were to have been conducted when I was a research student of the Deccan College. However, this could not be done, as I had to continue the excavations at Tekkalakota till March 1964. Therefore, this work had to be taken up only in February 1965, after the joint excavations at Sanganakallu by the Kannada Research Institute and the Deccan College. For this, Dr. Sankalia, Joint Director, Deccan College, provided the funds, and Dr. P.B. Desai, Director, K.R.I. recommended my deputation for nearly 7 weeks. The authorities of the Karnataka University kindly accepted the proposal and thus the excavations became a joint venture. I am grateful to Dr. Sankalia, Dr. P.B. Desai and to the authorities for all the facilities provided to conduct this excavation. The report of the excavation entitled Protohistoric Cultures of the Tungabhadra Valley, Hallur-1965, is ready and expected to be published soon( M > N).
The ancient mound is situated to the north of the village. It has been much disturbed by the construction of a medieval mud fort. It is cut into two parts by the moat, around the fort. The northern part is intact, but for the top portion which is disturbed by cultivation. As mentioned above, the site yielded during surface exploration, a variety of antiquities which included neolithic hand-made pottery, black-and-red ware of the megalithic as well as the early historic. There was also a variety of white painted ware in the black-and-red ware resembling one of the Ahar and Gilund painted wares. It was, therefore, decided to excavate in the little disturbed northern part, the following problems: (i) To know the nature of the neolithic people inhabiting the river bank, and (ii) to know the stratigraphic position of the white painted variety of black-and-red ware.

The Trenches

Two trenches were laid on this mound. Tr. 1 measuring 6 m x 6 m at the S.E. end of the mound, as it was the highest point and the cultural deposit was expected to be maximum, and Tr. 2 measuring 3 m x 5 m. But as the work progressed the area dug was limited to 6 m x 4 m and 3 m x 2.50 m respectively. Natural compact soil was struck at a depth of 6.78 m in Tr. 1 and at 4.70 m in Tr. 2. In all 14 layers in Tr. 1 and 11 layers in Tr. 2 were distinguished. The upper deposit of about 1.50 m was much disturbed by modern burials in Tr. 1.
CULTURAL SEQUENCE AND CHARACTERISTICS

On the basis of cultural contents recovered from the two trenches, two distinct periods could be discerned.

Correlation chart of Layers and phases

<table>
<thead>
<tr>
<th>Tr. 1 Layers</th>
<th>Tr. 2 Layers</th>
<th>Culture sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Overlap of Megalithic Period II</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>and Neolithic cultures</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>Chalcolithic Period I</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>Phase 2</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>Neolithic Period I</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>Phase 1</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

The above chart shows the correlation of layers in both the trenches.

Period I, which is termed neolithic, could be sub-divided into two phases, again, on the basis of the changes in the pottery traditions and other cultural equipment.
Phase 1 represents the earliest occupation of the site. It is mainly characterised by the handmade pottery, (i) Palegrey, (ii) Black Burnished grey, both with ochre painted variety, (iii) a coarse blackish grey, and (iv) a very small quantity of reddish brown ware with another painted variety. The lithic industry is represented by the occurrence of only a couple of edge ground tools, that too, on a soft material like schist, which is locally available. A few quartz flakes representing an industry is found. However, the typical blade industry with the crested guiding ridge technique, found in all the neolithic – chalcolithic sites of Deccan, is conspicuous by its absence in this phase, in the limited area dug. Even the beads and other antiquities are extremely rare, only one shell with edges ground, being available in this phase.

Phase 2 In this phase a change in the pottery tradition is discernable.

The principal wares of this phase are;

i. black-burnished ware which continues from the earlier phase,

ii. Brown-and-black, the principal ware of the phase,

iii. A coarse, dull red or brown ware.

The above three are also occasionally painted with ochre at the rims.

iv. Very few painted black-on-red wheel thrown ware,
akin to Jorwe fabric.

Palegrey, the principal ceramic of the earlier phase, is conspicuous by its absence.

The neolithic stone industry consisting of polished stone axes, chisels, wedges, etc. occur in good numbers. The material used is doleritic basalt.

There is also a rich blade industry on black quartzite exhibiting the crested guiding ridge technique. The majority of tools, show the use of parallelsided blades, lunates, serrated blades, etc. typical of the other neolithic-Chalcolithic sites.

Copper makes its appearance in this phase in the form of fish hook, double-edged, miniature axes and rods etc.

Beads, mostly of steatite and shell and occasionally bone, stone, terracottas and bone tools also occur.

Another noteworthy feature is the occurrence of a double-pot burial of a child.

Period II On the otherhand, shows an overlap of the existing neolithic-chalcolithic culture with a new
wave of folk with the knowledge of iron, i.e. the megalithic.

In this phase, besides pottery and other antiquities of phase 2, period I, the new features noticed are the typical megalithic pottery represented by the highly burnished black-and-red ware, all black ware, both with a painted variety, red-slipped ware, and iron implements such as arrowheads, spearheads and daggers.

The upper deposit of about 1.5 m, is much disturbed by modern burials, and cultivation. The mixed antiquities when sorted out, show that they belong to Megalithic, Early Historic and medieval phases.

STRUCTURES

Structural remains were found only in trench 1. The earliest phase is devoid of any structural remains. Remains of two complete circular structures were exposed in this trench, belonging to phase 2 of Period I.

STRUCTURE NO. 1 (pl. XVL)

Remains of this structure were found at a depth of about 3.90 m, in the northwestern part of trench 1. It is circular in plan, 3 m. in diameter, with well rammed floor and enclosed by a circular wall, as evidenced by the circular
post-holes found at intervals, containing fibrous remains of bamboo. The floor was found to be successively raised several times by preparing a bedding of chips of schist stone and rammed earth. There were two post holes in the centre of the house which probably supported a conical roof. At the northern part of the hut was a circular hearth or fire place. (pl. XVII., 1), the like of which has been found at Chandoli.\textsuperscript{155} The hearth contained lot of ash and charcoal. On the floor, in the central part of the house, was a polished axe. The most interesting find from the house is the charred grains which have been identified as \textit{ragi}, \textit{eleusine coracana} found for the first time, in so early an age as the neolithic-chalcolithic context in India.

\textbf{STRUCTURE NO. 2.}

The remains of the second circular structure were found in the same level as the above, towards the eastern end of the trench. As in structure No.1, this house also showed a number of raised floors made up of schist stone. The diameter of the interior is 3 m. Postholes at intervals, circular on plan, were exposed which must have supported a wall, probably of thatched bamboo. However, no wall remains have been found. The

\textsuperscript{155} Deo, S.B. \& Ansari, Z.D., \textit{Chalcolithic Chandoli}, fig. 8a, Poona, 1965.
post holes yielded disintegrated bamboo in the form of fibrous material. When the floor was uneven, at one raised floor as noticed in this house, the inhabitants have brought fine river sand, spread it in the interior, rammed it well and prepared a levelled floor. No other remains such as hearth etc. have been found.

No structural remains of period II, i.e., the Iron Age have been found, except patches of floors here and there.

BURIALS

BURIAL NO. 1. ( Pl XVI. 2 )

This is a burial of a child in two urns, of brown-and-black ware ( Pl XVI. 3 ) The urns were found placed horizontally mouth-to-mouth, in an oval pit dug for the purpose, in an almost east-west orientation. The pit was dug into layer 10, a series of floors being cut, and was sealed by layer 9, which itself is composed of a number of floors. Thus the burial appears to be under the floor of a house itself. A couple of post holes outside the burial pit confirm this.

The urns were in a completely crushed condition, due to the weight of the super-imposed debris. They contained within them a few bones of a child, consisting
of skull fragments, ribs and a few teeth. The other bones were completely disintegrated. The teeth and the fragments of the skull were in the jar at the eastern end, while the ribs were at the middle part where the mouths of the pots met, and possibly the extremities were at the western pot. At the western end of the pit was a bowl with flaring sides, of burnished grey fabric, while another small bowl was found at the northern side of the eastern pot, at the neck. Within the western pot was another small bowl with a squat body and smeared with red ochre in the interior. All these small vessels formed the burial appendage, probably meant for use, in the life after death.

**BURIAL NO.2. (Not illustrated).**

This was also a double pot burial, encountered in trench 2, interred in a pit, sealed by layer 5 and belonging to period II. On the basis of the fabric of the urns, this burial belongs to the people of phase 2, who continue to live on the site with the newly arrived Iron Age people. But a later pit dug into the burial pit had destroyed the burial, and only parts of the burial urns, mouth-to-mouth were remaining. The contents of the burial were also disturbed.

**BURIAL NO.3.**

A double pot burial was noticed on the surface, at the southeastern slope of the excavated mound, near the junction of the moat and the river. When a small square was dug to expose this burial, a large pit was encountered.
yielding a quantity of pottery of the period II. This pit had cut the pit of the double-urn burial, and therefore, the remnants of the burial were cleared up. No skeletal remains were found. The jars used similarly were large storage jars, with a crude applique decoration depicting a rope or chain pattern, executed by incised method on the applique band around the shoulder of the jar. At the termination of this applique pattern which was curled, two small knobs conical in shape, were affixed. Thus the burial jars are similar to those found at Tekkalkota used in the multiple pot burial. This might belong to period II. As pointed else where, the shape of the burial urns, and the typical applique knobs on the burial jars, indicate symbolically that the dead was given a re-entry into the mother's womb, even when buried.

Burials of Period II, i.e. of Iron Age, do not occur in the habitation area. They are found on the slopes of the hills to the north and west of the village, in the form of dolmenoid cists and stone circles, and in large numbers.

156. Nagaraja Rao, M.S. & Malhotra, K.C. Stone Age Hill Dwellers of Tekkalakota, p. 96, pl. XIV.
157. Ibid., p. 93.
CHRONOLOGICAL CONSIDERATIONS

As already mentioned, two periods have been distinguished at this site. Period I again has been sub-divided into two phases on the basis of ceramic evidence and the presence or absence of metal and blade tools. The only neolithic site in Karnatak so far dated by Carbon-14 method is Tekkalakota. Utur in the neighbouring Andhra Pradesh is another.

COMPARATIVE CHRONOLOGY

On the basis of comparative evidence, Phase 2 of Period I at Hallur could be equated with Tekkalakota, phases 1 and 2. Phase 1 of Tekkalakota appears to represent a late phase of phase 1 or early part of phase 2 of Hallur. Because, although pale grey ware is the main ceramic of the phases at both the sites, the typical chalcolithic blade industry and copper are absent at Hallur, in the earliest phase, as noted in both the excavated trenches. It is, therefore, postulated that phase 1 of Hallur appears to be earlier than phase 1 at Tekkalakota.

So far, five dates are available for Tekkalakota. The

158. ibid., p. xii.
date suggested for a sample from the lowest layer is B.C. 1615 ± 105. Thus phase 2 of Hallur may tentatively be ascribed to Circa B.C. 1500. Then phase 1 would be much earlier and period II much later.

On the basis of this evidence, the following tentative chronology may be postulated for Hallur cultural sequence:

- **Period I**
  - **Phase 1** Circa. B.C. 1800 - 1500.
  - **Phase 2** Circa B.C. 1500 - 1100.

- **Period II** Circa B.C. 1100 - 800.

**ABSOLUTE CHRONOLOGY**

Carbon samples from all the phases have been sent to Tata Institute, Bombay for processing. So far dates have been received, two for phase 1 of Period I and two for Period II. They are as follows:

**Hallur, Mysore.**

T.F. 580, Neolithic Culture, 3560 ± 105 (3660 ± 105) charcoal from Trench 1, layer 14, Depth 6.1 to 6.4 m. The sample derives from the lowest layer of the site, (i.e. phase 1 of Period I).

Thus the date for the earliest phase of the site is circa B.C. 1701 ± 105; for the upper stratum of phase 2 is B.C. 1030 ± 105; and for Period II, i.e. the Megalithic, circa B.C. 1105 ± 105; and 955 ± 100. It is thus evident

162. C-14 Date List - August 1966, Cyclostyled bulletin received from the Secretary, Radiocarbon Dating Committee, TIFR, Bombay.

163. C-14 Dates - May 1966, Cyclostyled bulletins from TIFR. These dates were received earlier.

164. Each sample is given two dates in years B.P. The first is based on the C-14 half-life value of 5568 ± 30 years; the second within parenthesis, on 5730 ± 40 years. The latter is used as the best working value. See Godwin, H., Nature, 1962, 195, p. 984.
that the chronology postulated for the periods I and II is confirmed by C.14 determinations. The chronology also further gains weight by the recent C-14 dates for T. Narsipur, which has yielded similar cultural contents, are Circa B.C. 1805 ± 110 and 1495 ± 110. 165.

RESULTS OF THE HALLUR EXCAVATIONS – SUMMARY

From the limited excavations the following sketch of the life of the early pastoral-cum-food producing people of Hallur becomes clear.

The earliest phase of the site appears to represent an early phase of the neolithic, having no contact as yet, with the chalcolithic folk of the northern Deccan, as the typical blade industry of the latter is absent in that phase. This appears to be substantiated by the fact that copper is also absent. 166 No structural remains or burials have been found, and therefore, nothing could be said about the life of the earliest settlers of the site.

166. The observation, based on the corroborating evidence of the two excavated trenches, is tentative, and is to be confirmed or revised, if large scale excavations demand it.
Phase 2 of period II, presents a better picture. The structures of this phase are circular with well rammed floors and provided with circular hearths or fire-places (pl. XVL.1). Whenever, the floor was uneven, the occupants have levelled the surface by spreading fine river sand and ramming it. Locally available schist chips have been used to prepare floor beds and floors are also raised. The walls appear to have been made of thatched bamboo plastered with mud and supported by posts at intervals.

The pottery, is generally handmade with a few exceptions of painted pottery which appears to be wheel thrown. The vessels include globular pots, bowls etc., which were meant for ordinary domestic use. But large jars and urns were also utilised for burial purposes (pl. 11).

The inhabitants were largely non-vegetarians and seem to have used beef, pork etc. Many charred bones indicate that after roasting the flesh was consumed.\(^\text{167}\) But the charred grains recovered from the floor of the

house no. 1 and identified as *ragi*, *Eleusine Coracana* prove beyond doubt that this cereal was not only cultivated but formed a part of the diet of the folk. It is interesting to note in this context that even today *ragi* forms the main diet of the farmer class of the region around Hallur, Old Mysore State and further south. Incidentally this is the earliest evidence of this cereal dating back to circa B.C. 1500. We already know that the *putse huruli*, *Dolichos Biflorus* and the cereal *wheat* were cultivated and used by the early pastoral communities of Tekkalakota in North Karnataka and Songaon in Maharashtra. *Ragi* from Hallur adds to the list of the grains.

---

168 Vishnu Mittre, 'Plant Economy at Hallur', in Nagaraja Rao M.S. *op. cit.* (in press).


Polished stone tools were mainly used for cutting and splitting wood or bone. They were highly ground and polished, and appear to have been manufactured elsewhere. Trapdykes occur a little away upstream of Tungabhadra.

The other major lithic industry is the blade tools which seem to have been introduced by new comers to the site, around B.C. 1500. A number cores and flakes found indicate that the tools are of local manufacture and the material, black-quartzite, is probably derived from the auriferous tract of the famous Honnali Schist belt. Fishing and other activities are suggested by the bone points, Copper implements such as miniature axes and fish hooks.

Domestication of animals and cultivation are the main occupation of the folk discernable from the evidence of the skeletal remains of the animals, and the availability of cereals respectively from the site. The reed mat impression at the base of a jar and copper fish hook attest to the fact that the people were engaged also in matweaving and fishing.

Among the animals domesticated, cattle seems to be predominant as the bones indicate. The other animals represented are swine, either domesticated or wild, sheep
and goats, antelopes and carnivorous animals (dogs). It is interesting that horse gets associated with the chalcolithic phase of occupation. However, the remains are scanty and further and more evidence should be looked for to attest its association with the neolithic - chalcolithic phase.

Beads of steatite, terracotta, stone, bone and shell show the skill of the folk in the lapidary art and their love to bedeck themselves with ornaments. Particular mention must be made here of fragment of a pottery head-rest, of burnished grey fabric, found on the floor of the structure no. 1. Such pottery 'neck rests', as they were designated by Foote, were first reported by him from the site of T.Narsipur on the Kaveri. Their actual use and significance were not known. But recent excavations by Seshadri, at the same site have shown that they were used for ceremonial purposes. A head rest, at Narsipur, was found placed in a burial, near the ear of the skull. Thus their use was sepulchral. Occurrence of this similar object at Hallur is therefore, significant.

171 Alur, K.R. op. cit.
172 Foote, IPPA, Notes, p. 69, pl. 23, 234, 128.
172α IAR, 1961-62, p. 36, pl. L V /II A.
The burials, though only a few, prove clearly the belief of the people in the life after death. The three burials described above belong to neolithic-chalcolithic phase. They show that urn burials were common and that children were buried in urns placed mouth-to-mouth, in the habitation area under the floor of the house itself.

Period II of the site shows, that a new wave of people, with the knowledge of Iron, and the typical, highly burnished, black-and-red ware pottery, and the peculiar burial custom, arrived on the site, in about circa B.C. 1000. But enough evidence is not available to reconstruct the life of these iron using, megalithic people as the new comers are designated. But the following observations could be made.

Their principal ceramic was the highly burnished black-and-red ware, with a white painted variety. Their tools were of iron and mainly consisted of arrowheads, spearheads and knives. The husks of grains, encrusted on some of the iron implements, identified as rāgī, Eleusine Coracana, and rice, (oryza sativa L.) provide a clue to their food habits and cultivation. Incidentally, this is the earliest evidence of rice in Karnataka.

173. Vishnu Mittre, op. cit.
Further the excavations have definitely proved that white painted black-and-red ware of this site is of megalithic origin; it arrived here by about B.C. 1000. This indicates the interrelation between the earlier pastoral folk and the megalithic people. As we know, white painted black-and-red ware have occurred in the chalcolithic burials of Tekwada in Khandesh and Tekkalakota in Bellary region (pl. Va, fig. 22). At the latter site the black-and-red ware is exclusively associated with burials. A suggestion was, therefore, made that this ware was probably imported one as far as the chalcolithic sites of the Deccan are concerned. From the evidence at Hallur, this suggestion gains ground and indicates that the pastoral folk borrowed this from the megalithic people with whom they came into contact in about B.C. 1000. The northern extension of this megalithic culture is proved from the pit burial at Ranjala in Khandesh.

These iron using people buried their dead away from the habitational area, and generally preferred the slopes of hills. Dolmenoid cists and stone circles are found on the hilly tracts, to the north and west of the Hallur site.

Thus the excavations at Hallur, substantiated the evidence available from Tekkalakota, and also provided more new information regarding the Iron Age in Karnatak.

173a. *IAR.*, 1956-57, pp. 18-19, fig. 8, No.3.