

of *Tirthankaras*. A temple of seventeenth century was also noticed at Erivoykuppam. The following sculptures in the temples were significant: Sarasvati at Tiruppanmur ; Dakshinamurti Siva, Vishnu, Brahma and Mahishamardini at Takkolam and Vishnu at Pullalur.

Ancient habitational vestiges in the form of ring wells and medieval pottery were observed around the Siva temple at Tiruppanmur. Black-and-red, red and red-slipped wares were found strewn on a small high ground to the north-west of Perumbakkam, in District Chingleput. Black-and-red and red polished wares, large-sized bricks and ring wells were found on a 3-m. high mound on the right bank of the Coovam river near Takkolam in District North Arcot. At Takkolam itself, 16 km. to the east of the village, an embankment known as Kottaikamedu with vestiges of large-sized bricks and medieval pottery was noticed.

Urn-burials were found at Takkolam in District North Arcot and a dolmen within a stone-circle at Kunnavakkam in District Chingleput.

30. EXPLORATION IN DISTRICT DHARMAPURI.—Shri B. Narasimhayya of the Southern Circle of the Survey found a number of megalithic port-holed cists at Doddamanchi, Dodda Timmanahali (Dudiavanpalli), Gummanur, Gunduvatam, Kottur, Nammandahalli, Natarapalayam, Paleyur, Sengodachennanahalli (Sonninayakanahalli), Suligunta and Timijepalli.

Several megalithic cairn-packed cists with circle - stones were located by him at Doddamanchi, Gunduvalam, Kurubanahalli and Natarapalayam, besides those of megalithic affinity with circle-stones at Ratnagiri.

At Bettamugalalam, Bilalam, Gangadevanahalli, Kanavanapalli, Kundukottai, Mallikarjunadurgam, Manchugonduppalli, Mariyalam, Palaiyamkottai, Puram and Tottikuppam he noticed dolmenoid-cists with circle-stones.

Many inscriptions in Tamil, ranging from the fourteenth to the seventeenth century A. D. in date, were found at Erudukottai, Kanavanapalli, Mallikarjunadurgam, Nagamangalam, Palaiyamkottai, Sattanapalli and Timijepalli.

A fortification on a hill with granaries and ponds was found at Ratnagiri and another with a temple at Mallikarjunadurgam. Forts of late medieval period were also discovered at Agalakottai and Palaiyamkottai.

Numerous hero-stones were found at Gangadevanahalli, Nagamangalam and Natarapalayam.

31. EXCAVATION AT PAIYAMPALLI, DISTRICT NORTH ARCOT.—In continuation of the previous year's work, (1964-65, p. 22), the Excavations Branch of the Survey, under Shri S.R. Rao, resumed excavation at Paiyampalli. The previous season's work had brought to light two cultural periods, viz., the neolithic (Period I) and the megalithic (Period II). The Carbon-14 determinations of the charcoal samples indicated for Period I a date at 1390 ± 200 B.C. and for Period II at 315 ± 100 B.C. The renewed excavations were undertaken with five objectives : (i) to obtain more data on the nature of the dwellings in both the cultural Periods; (ii) to ascertain the method of the disposal of the dead; (iii) to confirm the absence of metal in Period I as evidenced by the previous season's dig; (iv) to investigate the part played by the blade industry in the neolithic culture-complex of this region ; and (v) to know whether there was any time-lag between the

two cultural periods and, if so, whether the overlap of ceramic industries noticed in the middle levels was a superficial one.

Digging operations were carried out in three terraces, designated as Site-1, Site-2 and Site-3, located respectively on a slope of Talatappamalai hill forming part of Shevroy Range, to its west and south.

While confirming the already known cultural sequence (fig. 6), the excavation

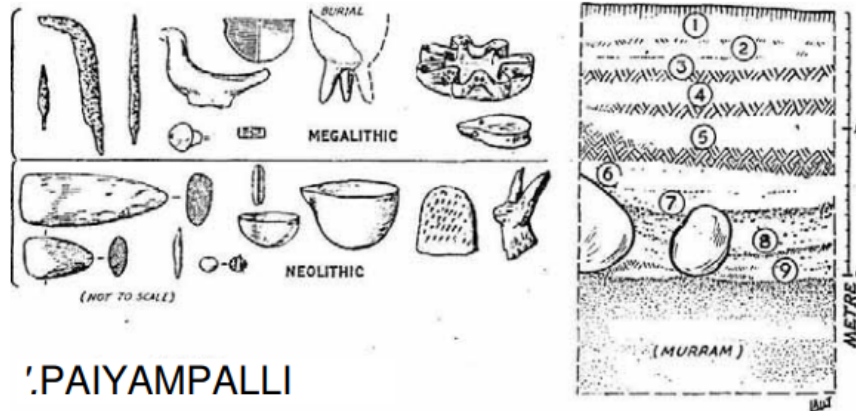


FIG. 6.

revealed two phases A and B in Period I. Phase A, represented by layers 8 and 9, contained bone tools and short blades of jasper, agate and chert, besides ground stone axes. Layers 7 and 7 A formed the latter Phase B of the neolithic occupation and contained lesser quantity of stone blades and bone tools. Layers 5, 6 and 6A yielded iron objects and the megalithic Black-and-red Ware as well as the grey ware and polished stone axes of the neolithic facies.

In Site-1, dwelling-pits of varying depths, cut into the natural soil, roughly oval circular and oblong with longer axis along the cardinal points, were uncovered. One of such pits was divided into two parts by means of a row of stones. The larger ones had a landing or ramp-like approach on one side. A dwelling-pit lined with stones along the edges showed two phases of occupation, the earlier marked by a flat stone at the bottom and the subsequent one by a floor made of rammed earth, 50 cm. in thickness. A coarse red ware jar was found *in situ* on the floor. Post-holes along the periphery of a few pits suggested the existence of some sort of thatched superstructure over them. Some refuse-pits too were encountered. Bone tools exemplified by awls, points and scrapers were also found in one of the dwelling-pits besides fragmentary ground axes and short blades of chert and quartz. The ground stone axes revealed all the stages of manufacture, namely, flaking, pecking, grinding, etc. Even unground ones were used as tools, as can be judged from their wear and tear. Generally, the axes with a pointed butt formed the majority, but those with blunted or truncated butt were not wanting. Axe-hammer was an interesting type that occurred not only at Paiyampalli but also in the neolithic sites around Kolar. The mace-heads and perforated stones used as weights of digging stick were of particular interest. For domestic use and agricultural operations short blades

of chalcedony, chert and quartz were used as composite tools. The waste flakes and fluted cores indicated that the blades were made locally (pl. X).

Ceramic contents of Phase A comprised pale grey and burnished grey wares, besides a red ware, found in small proportions. Among other stone objects found in the neolithic levels, mention may be made of querns, mortars, pestles, pounders and pebble-polishers.

In Phase B, the absence of bone tools, an increase in the number of stone blades and the marked preference for built-up huts with wooden posts over the dwelling-pits definitely indicated further development in the economy of the people. The floors were levelled with stone chips and plastered over with ash-mixed earth. Of this Phase, the principal pottery was red ware, though the use of grey ware also continued. However, still later, in layers 6A, 6 and 5, neolithic and megalithic wares were found together, the emergence and disappearance of painted pottery (pl. XI) being a significant feature.

All vessels of pale grey and red wares of the pure neolithic levels were hand-made or turned on a slow wheel. The most outstanding type occurring in all the fabrics was the lipped bowl with a round base. It is common to most of the neolithic sites in south India. This type in the pale grey ware was painted in red ochre on the rim. A rare type was a bowl with a short channel-spout. In both the Phases, habitational erosion was prevented through plugging gaps with small stones.

The neolithic settlers of Paiyampalli used to cultivate cereals and pulses. Charred grains, identified as horse-gram (*Khuli*), and green-gram have been found in those levels where a few sherds of megalithic pottery occurred in an essentially neolithic habitation-deposit. The skeletal remains from the neolithic levels represented animals of the bovid group, sheep, spotted deer, fowl, pig, jungle cat and rhinoceros. Swamps and thick jungle in the neighbourhood of Paiyampalli are suggested by the presence of bones of rhinoceros.

Period II represented the megalithic culture and the habitation thereof extending over Site-1 and Site-2. Within a total occupational deposit, varying from 1 to 1.50 m. in thickness, three successive floors with post-holes were encountered in Site-2. The huts were generally circular, oval and oblong on plan. The circular houses varied from 1.5 to 3 m. in diameter, while the oval and oblong ones measured 1.7 to 4 m. along their longer axis. In a number of instances, the floor was made of stone chips covered with *murram*, invariably plastered with lime. Occasionally, a rubble-flooring was also provided on the periphery of the house. Only in two cases, foundation wall of rubble could be seen. The houses usually consisted of a single room, but in Site-1 a double-roomed house was also met with. A unique example of a perforated stone base, provided for supporting the thatched-roof, also came to light.

Among the interesting antiquities found in the megalithic habitation, mention may be made of conical objects in terracotta arranged in groups of three, with a single exception in stone, having perhaps some ritualistic significance.

The megalithic pottery of Paiyampalli is similar to that of other megalithic sites, except in respect of the abundance of a comparatively thin but coarse red ware, painted in chocolate or light-brown, met with at the habitation area, as distinct from the orange colour painting found on the burial pottery of the same site. The vessels were painted on the exterior only. The paintings on these pots, however, display an elementary attempt of the megalithic potter to decorate with pigments without any proper scheme. In a few cases human, and plant figures have been drawn symbolically.

EXPLORATIONS AND EXCAVATIONS

The three main ceramics of Period II were the megalithic Black-and-Red Ware, all-black and the red wares. The main types in the Black-and-Red Ware were the bowls with vertical or straight sides and a round or sagger base. Some of them had a ribbed exterior. Tulip-shaped vessels and jars with a flaring or convex neck also occurred in this fabric. Funnel-shaped lids appeared as an interesting type in the all-black ware, while ring-stands of hour-glass type, tall three-legged vases, pyriform storage jars with a round base formed the main types in the red ware. The vessels of the Black-and-Red Ware had invariably a crackled surface. In the late levels of Period II, the Russet-coated Painted Ware also made its appearance. Decoration by incision, applique and stamping technique was resorted to, the designs being nail-and finger-tip patterns, palm leaf, wavy lines and triangular notches. A leaf design was also stamped occasionally. From the enormous quantity of iron slag and ore found all over the site, it can be concluded that the megalithic people smelted iron and produced a large variety of tools and weapons locally. Sickles, spears, chisels, nails and axes were found in the habitation area. A rectangular axe measured 27.5 cm. in length, 10 cm. in breadth and 3 cm. in thickness. Two stones axes were also found in megalithic levels.

The personal ornaments of the people included bangles of glass and terracotta, beads of glass and crystal and terracotta and ear-ornaments. A stone mould of a goldsmith, found in the excavation, proved that ornaments were cast. A unique type of terracotta lamp, circular in shape with eight lips for wicks, was used by the megalithic people.

A preliminary ground survey of the 'U'-shaped valley, flanked by the hills Talatappamalai and Vontigudda, brought to light a large number of rock-shelters, formed by massive boulders juxtaposed against one another at different levels on the hill-slopes. Of these five were found to contain 0.50-m. to 1-m. thick habitational deposit, yielding neolithic and megalithic pottery and stone tools. In addition, scores of cairn-circles ranging in diameter from 3 to 10 m. were also found in the valley. Three of them, Megaliths 1-3, were excavated, details of which are as under.

Megalith-1.—A cairn-circle situated at the foot of the Talatappamalai to the south of Site-I had an external diameter of 6.3 m. In the course of the excavation, it became clear that the skeletal remains and grave furniture were deposited within a stone-lined pit, ovoid on plan, which could be traced to a depth of 50 cm. It was noticed that a thin layer of greyish earth with lime speckles was spread over the bedrock to form the floor. After depositing bones, earthen pots and iron objects, the pit was filled with *murram* and finally covered with rubble. Except for a few extant stone slabs lining the pit, no other lithic appendage was encountered. The skeletal remains, found in a disarticulated position, belonged to two individuals. One of them was about fifty years of age. It was interesting to find that some pots were kept upside down over the skeletal remains. Out of nineteen pots recovered from the grave-pit, one was a three-legged vase. Other items of grave furniture included an iron arrow-head, a fragment of a spear-head and a terracotta bead.

Megalith-2. This was completely ransacked.

Megalith-3. To the west of Site-2, a cairn-circle, designated here as Megalith-3 was found on an artificial mound raised on an elevated ground with a height of

2 m. from the surrounding plain. The cairn-circle measured externally 8.2 m. in diameter, while the grave-pit measured 3.2 m. with a depth of 0.3 m. Some of the circle-boulders and a part of the rubble packing were missing. A terracotta sarcophagus having twenty-four legs and containing disarticulated bones was placed in the pit which was internally stone-lined. As many as eighteen iron arrow-heads and some earthenwares were deposited around the sarcophagus and it was finally covered with earth. The pit itself was sealed by rubble. Another layer of rubble was provided right up to the edge of the circle to serve as a tumulus. From the disturbed position of the stone-lining and the absence of the lid of the sarcophagus, it appeared that the grave was ransacked some time after the interment. Other contents of the pit were large dishes of the all-black ware and jars and bowls of the Black-and-Red Ware.

In addition to the wares mentioned above, the burials yielded a thick coarse red ware often decorated with incised and applique designs. The main types in this ware were ring-stands, vessels with a collared or beaded rim, conical vases with pointed bases and jars with excurved rim. The Black-and-Red Ware types included the tulip-shaped vase or basin, bowl with a bevelled rim, shallow dish and conical vase. A funnel-shaped lid was the only type noticed in the all-black ware. Significantly enough, painted pottery was conspicuous by its absence in the burials. Graffiti marks were seen on the pottery from the habitation area as well as from the cairn-circles.

In conclusion, it can be said that the excavation at Paiyampalli has provided a firm datum for the southernmost non-metal-using neolithic phase.

32. EXCAVATION AT URAIYUR, DISTRICT TIRUCHCHIRAPPALLI.— The Department of Ancient History and Archaeology, University of Madras, continued excavation at Uraiur, at three localities, viz., URY-7 in the compound of the Uraiur overhead water-tank; URY-8 in the premises of a private bungalow, about 91 m. to the north west of the former; and URY-9, about 91 m. to the south-east of URY-7.

As in the previous season (1965-66), this year too the three trenches revealed a succession of three occupational periods ranging from the early centuries of the Christian era to late medieval times.

Period I was characterized by the occurrence of the Black-and-Red, Russet-coated Painted and Rouletted Wares. Shapes comprised bowls with a rounded body, carinated either at the waist or at the shoulder, flat dishes, chalices or bowls with low pedestals, ring-stands, lid-cum-bowls, besides water-jars. A few sherds also preserved lightly scratched graffiti marks, while some had Brahmi letters (pl. X B), palaeographically assignable to about the first or second century of the Christian era. Other objects found from this Period included shell and -paste beads, terracotta gamesmen and bone points.

The principal pottery of Period II was the red-slipped ware, while the Black-and-Red Ware was used in limited quantity. Towards the latter part of this Period was introduced an ill-fired coarse red ware which became the dominant ceramic tradition throughout south India in medieval times. The normal shapes in the red ware included globular pots with narrow necks and small mouths, cooking pots, bowls with tapering sides and incurved rims and a variety of dishes. The Black-and-Red Ware entered a phase of devolution.

The occurrence of certain holes of 15 to 20 cm. in diameter filled with sand, charcoal and ashes in three distinct but closely successive levels in URY-8, was suggestive of their association with some kind of ritual.