CHAPTER IV

Survey of the Neolithic - Chalcolithic Cultures of the Deccan

Past Explorations and Excavations

Before detailing the work carried out by the writer, it is necessary to take into account, of the work so far carried out in the region under study. Since the discovery of the site of Brahmagiri and the chalcolithic elements, considerable field work has been carried out, by active workers in the field. For the purpose of the present study, the Deccan could be divided mainly into two divisions, viz., the northern and the southern, comprising roughly northern and southern Maharashtra, excluding the Konkan and Vidarbha, and the northern districts of Mysore State, excluding north Kanara—respectively. Since the elements of the neolithic-chalcolithic were first noticed in the southern part, the work done there, has been detailed first.

Although it is out of the purview of the definition of the region under study, mention must be made of the discovery of handmade pottery and fluted cores of chert
by Foote, as early as 1903, at Pātapādu Cache, on the Hingni river, in the former state of Banganpalle, now in Kurnool district of Andhra Pradesh. His collection included a lipped bowl, handmade and painted in black with groups of vertical and horizontal bands, fragment of a lipped bowl painted in black with bands, and a thick 'lens shaped' lid. These antiquities are of significance, as they could now be ascribed to the neolithic-chalcolithic period, as Allchin has shown with comparative evidence. In 1936, Maski in Raichur district in the erstwhile state of Hyderabad, was excavated by the state department of Archaeology. Although the finds from the excavations are varied and of great interest, the excavations were only

36. Foote, R.B., IPPA., Notes., p. 115 and pl.26; Allchin has published this collection and his own from the site and the drawings for the first time; see, 'Painted Pottery From Pātapādu, Andhra Pradesh', Antiquity, Vol. XXXVI, No. 143, pp. 221-224; the writer also had the occasion to handle them at the Madras Museum, where they are housed.


briefly reported and the sequence of cultures could not be followed. The same was the fate of excavations at Kallur in the same district.\textsuperscript{39} However, the latter site is worthy of note for the famous copper swords with antennae hilts reportedly said to have been found in a cavern while blasting the rocks.\textsuperscript{40} These

\textsuperscript{39} ARADH, 1937-40, pp. 31-32.

\textsuperscript{40} These copper swords are reported to have been found at Kallur (ARADH, 1938-39, p. 21 and pl. V b) and Shri. Lal, published an article\textsuperscript{4} on them drawing the attention of the scholars to the similarity to those of Patehgarh Swords ('Chalcolithic phase in South Indian Pre-history', JRASB, (Letters), Vol. XV, No. 1, pp. 41-44, 1949). Recently Dr. G.G. Mujumdar and Prof. Rajguru of the Deccan College visited the site recently in 1965 and got the following information. The Patil who is showing the spot where the swords are supposed to have been found (ARADH, 1938-39, pl-va) informed them that the swords were brought to him by a villager and were not found in the hill near Kallur. However, he could not recollect from which village actually the swords were brought. Thus the origin and provence of the swords are shrouded in mystery. It would not be surprising even if they were brought from U.P.

However, there is definite evidence from all the excavated sites, that copper was used, though sparingly during the neolithic-chalcolithic phase, in this part of Karnataka.
swords are almost similar to those specimens found at Fatehgarh. The finds from the excavations particularly the lump of copper pyrite and three swords mentioned above at once associate the site with the chalcolithic phase.

The first systematic excavations were conducted at Brahmagiri in 1942, by Krishna. While trying to expose the town site of Isila of the Asokan edict at the neighbouring village of Siddapura, he struck an earlier culture in the lower deposits of the site which is characterised by the occurrence of polished stone axes, blade tools, hadmade, thick grey ware and highly burnished black pottery. But for the brief note, the detailed account of the excavations remain unpublished. Wheeler reexcavated the site in 1947, and established a sequence of cultures

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41. Such an antennae hilted dagger has been found for the first time in a stratigraphic context at Chandoli, in Maharashtra, IAR, 1960-61, pl. XXXIV, No. 2; Deo, and Anaw, Chalcolithic Chandoli, pt. 58, p. 1965, Poona.

42. Lal, B.B., op. cit.

43. MAR, 1942, pp. 100 ff.
with certainty. The excavations at the habitation site revealed the existence of three distinct cultural periods, viz., (i) Stone Axe culture provisionally dated from 1st millennium B.C. to the beginning of the 2nd Cent. B.C.; (ii) Megalithic culture after about 200 B.C. to the middle of the 1st Cent. A.D.; and (iii) Andhra Culture, circa 1st Cent. A.D. to the 3rd Cent. A.D. For our study the main characteristic of the Polished Stone Axe culture may be noted.

The polished stone axe culture has been divided into two phases, viz., IA and IB. Throughout the period, polished stone axes, and blade tools of flint, agate and jasper occur. Pottery was handmade grey ware. But the earliest phase, viz., IA, yielded a painted and incised ware, which were found to be absent in the succeeding phase. Further in one trench, there was a weathered layer in between the two phases showing a gap.

Though not much evidence was available regarding the structures, the limited dig showed that the houses were of timber and possibly rectangular in plan.

45. Ibid., pp. 202-203.
Regarding the burial customs, children were found to have been packed into two globular urns, placed mouth-to-mouth, and buried in pits vertically, dug for the purpose. In two instances, they were found buried in extended fashion. The one adult buried in a narrow pit, lay north-south and was provided with burial appendage consisting of a spouted pot placed near the skull and two grey ware bowls, near the upper end of the femurs.\(^{46}\)

Thus the first excavations at Brahmagiri gave not only a clear sequence of cultures but a starting point for further studies.

The next year Subbarao excavated the site of Sanganakallu,\(^{47}\) after a preliminary survey of the Bellary region.\(^{48}\) The small scale excavation not only confirmed the Brahmagiri sequence, but brought to light an earlier a-ceramic phase characterised by quartz and patinated trap flakes. Further, the upper levels of the site showed

\(^{46}\) Wheeler, op.cit., pls. CVII A, B; CIX, A.B; CX.

\(^{47}\) Subbarao, B., Stone Age Cultures of Bellary, 1949, Poona.

that the above neolithic or polished stone axe culture, there was an overlap of neolithic and megalithic cultures. As at Brahmagiri, here too, Subbarao distinguished two sub-periods, in the neolithic (i.e. his period II), mainly on the basis of ceramic evidence. The earlier phase which is said to represent the true neolithic, was characterised mainly by pale grey pottery, polished stone axes, and a fine blade industry of chert, jasper and chalcedony. The later phase, i.e., sub-period 2, said to be chalcolithic in nature and similar to Brahmagiri stone Axe culture, distinguished itself by the diminishing pale grey and mainly associated with a brown-and-black ware, and a few sherds of painted ware, polished stone tools and 'a weakening microlithic facies.'

Again there was a lull in the region, until 1952, when Allchin surveyed the Raichur Doab, for his study of the early cultures of the region. After exploring the area, he excavated the site of Piklihal, near Mudgal in Raichur district. The results more or less confirmed the sequence at Brahmagiri and Sanganakallu. The earliest period, designated the lower neolithic was characterised

49. Subbarao, B., Stone Age Cultures of Bellary, p.10.
50. Allchin, P.R., Piklihal Excavations, APAS, No.1, Hyderabad, 1960.
by (Allochin's) $A_1$, $A_2$ and $A_3$ wares (Grey ware, burnished wares—often painted with ochre) and a pre-firing painted ware with purple paint. The other antiquities included ground stone tools and blades. Further a large number of cattle bones were also found. The upper neolithic shows the disappearance of $A_3$ wares and an increase in $A_4$ and $A_5$ wares. Copper and bronze make their appearance and lithic industries continue. On the evidence of a number of wheel thrown black-or-purple—on red ware (AB ware as it is called), which is also noted at Brahmagiri, an intrusion, possibly from the northern Deccan, of the chalcolithic is postulated.51

Three burials were found, of which one is the upper neolithic. However, all of them belong to the same culture complex. The dead were buried in pits and were provided with grave goods, for the life after death. In the case of one male, stone axe was placed near the feet, a small bowl near the loins and five parallel sided blades by the side of the head. The female skeleton, buried in a pit was provided with spouted pot by her head and a deep bowl near the loins. No child burials were found.

The later cultural accumulations showed that the site was occupied during the Iron Age, Early Historic, Early Medieval and Medieval periods.

51. Ibid., pp. xv—xvi. *Surface collection by the author.*
Thapar's reexcavations at Maski in 1954, revealed the following cultural sequence: period I, chalcolithic; after this, the site was deserted and indicated by a sterile layer; period II, megalithic; an overlap of megalithic and the early historic cultures; period III, the early historic characterised by the red ware and the red coated painted ware.

Period I, the chalcolithic, with which our study is concerned, distinguished itself by two wares, as far as pottery is concerned, viz., a dull red ware and pinkish buff ware, the latter occurring in considerably large quantities at the lower levels. A painted ware decorated with linear patterns in black or chocolate on a red background, reminiscent of a similar at Brahmagiri and Sanganakallu, also occurred, again confined to the early levels. Generally the pottery was wheel made, with some exceptions of handmade wares. Of the lithic industries, long blades of chalcedony and chert occurred in considerable numbers; but surprisingly no polished axes were found in stratified deposits, although a number of them were reported from the earlier excavations, and a

large number of them were collected from the surface. Besides these, a number of beads, of semiprecious stones, such as carnelian, agate, chalcedony, coral, shell, paste etc., terra cottas, and only one metal object of indeterminate description were found.

Not much evidence was available regarding the structures, but they were probably of Wattle and daub. Burials were totally absent.

Further south, in the Kaveri valley, Seshadri excavated the site of T. Narasipur, situated at the confluence of the Kaveri and the Kapila rivers. The site was known for the neolithic antiquities, particularly, the pottery object known as the 'neck rest' from the time Foote collected them here. Seshadri's excavations revealed the following sequence:

(i) The neolithic; (ii) the Chalcolithic; and (iii) the Megalithic.

The earliest phase, the neolithic, is largely associated with animal bones and pottery. Of the pottery fabrics, the burnished ware predominates. The upper layers

55. IPPA, Notes, pp. 69-70, pl. 23.
of the neolithic period have yielded burnished black ware, the lips and rims of which were painted with red ochre. Of the types, lipped bowls are very common. Polished stone axes are also found in this phase.

This earlier phase is said to have been superimposed by a debris of 'chalcolithic' phase which is characterised by the occurrence of painted black-on-red pottery, comparable to those found at Brahmagiri, Sanganakal and other sites; fluted cores of black jasper. The pottery fabrics of earlier phase, however, continue to occur.

The lower neolithic phase yielded an extended burial, oriented east west, and with the two hands placed over each other on the abdomen. Near the skull, were placed two vessels of handmade and cream coloured, and a shallow bowl, with a protruding channel spout. Near the right ear of dead, a pottery 'Neck rest' - a hollow stand with a concave top - was found. Though this is replete with this object, its use was not known until its association with this burial.

56. The material is the same as the one used at Hallur, for blade industry. It has been examined by Dr. Sadasiviah of Geology Dept. of Karnataka University and is identified as black quartzite.
Above the chalcolithic phase occurred the Magalithic debris mainly characterised by the typical black-and-red ware, all black ware and the red ware; met with at all other sites.57

Though not situated in the North Karnataka region, two more sites deserve to be mentioned in this connection. They are Nagarjunakonda in the Guntur district, and Utnur in the Mahabubnagar district, of the neighbouring Andhra Pradesh.

Nagarjunakonda has been continuously excavated for more than a decade. The neolithic site was excavated by Soundararajan and others. The cultural elements unearthed reveal that this period was contemporaneous with

57. Dr. Seshadri has recently excavated the site of T. Namipur again (May 1965). The results confirmed the sequence obtained previously. This year's dig yielded plenty of carbon material. A completely charred log has been recovered. The dates available for the site recently one, B.C. 1805 ± 110 and 1495 ± 110. C-14 Dates - May 1966, Cyclostyled Bulletin of TIFR. From personal discussions with Dr. Seshadri and mentioned with thanks.

the polished stone Axe culture of Brahmagiri IA and IB, and Sanganakallu II, Sub-period I. *Except a single sherd (not illustrated) with regular streaks of brownish red on grey fabric, painted sherds are absent.* The pottery forms and shapes are similar to those found at Sanganakallu and Brahmagiri. Polished stone axes have been found in considerable numbers, while the lithic blade industry occurred only in the upper most layer. The meagre quantity of copper objects from the periphery of the pits, does not warrant, according to the excavator, to designate the phase as 'chalcolithic'.

Three kinds of burial customs have been discerned at Nagarjunakonda. The children were buried in pale grey urns, and it was the case of fragmentary or secondary burial. Urn burials have been brought to light right in the habitation area, possibly under the floor. Secondly the adults were buried in north-south orientation and provided with grave goods, consisting mostly of spouted vessels. Thirdly, in a single instance, the skeleton of an adult was found in a flexed position in a deep, round pit.

59. AI, No.14, p. 105.
61. IAR, 1957-58, p.6, Figs. 2 and 3.
The site of Utnur, just 6 miles north of the river Tungabhadra, presents a very unusual evidence. The mound excavated is an ash mound, which is said to have been formed due to the periodical burning of cow dung. These ash mounds are peculiar features particularly of Bellary and Raichur districts of Karnatak. 62

These mounds were variously explained as volcanic ash, cremation grounds and sites of industrial working etc. However, the credit of identifying these mounds as heaps of burnt cow dung goes to Foote. 63 This has been further confirmed by recent scientific analysis of Zeuner. 64

Allchin excavated the Utnur mound in 1957, and distinguished five periods of occupation. 65 He found

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62. For the distribution and characteristic features of these mounds, see Allchin, F.R., Neolithic Cattle Keepers of South India, pp. 47-71, Cambridge, 1963. Some more such mounds have been recently discovered in Bijapur and Belgaum districts, by Sri. A. Sundara & in Gulbarga by Sri. Paddayya. Mentioned with permission and thanks.

63. Foote, R.B., IPPA, pp. 89-95.


that this was a Cattle pen occupied and levelled several times, after periodical burnings. The excavations yielded neolithic pottery, similar to those at Piklihal, ground stone tools and tools of blade industry. The most noteworthy and conclusive evidence is, however, that of the impressions of cattle hoofs, in one of the early occupational levels. The date for a sample from period IB level is B.C. 2160 ± 150 for that middle-neolithic horizon. This is, incidently, the earliest date so far known for the Deccan neolithic.

We may now turn to the northern Deccan. While the earliest elements of this so-called chalcolithic culture were noticed, at Brahmagiri, as early as 1942, nothing was known of this culture in the northern Deccan. The credit of first noticing the elements of this culture should go to Sali, who announced in a daily newspaper 'Dainik Bharat', in 1950, the discovery of complete vessels painted in black, on matt red surface, in accidentally exposed sections of the river Pravara, at the village Jorwe in Ahmednagar district. However, the antiquity of this pottery was not accepted until it was

66. Ibid., p.63; Recently Tata Institute, Bombay has also analysed the samples from the site. The dates are - 

The dates are -
found at the lowest levels at the site of Nasik. The excavations at the site of Jorwe proved the association of this pottery with the new culture called 'chalcolithic', which was distinguished by, besides painted pottery, the lithic blade industry consisting of parallel sided blades, lunates, etc., made on silicious materials such as chalcedony, jasper and chert, and copper objects. Mention must be made of six flat celts of low grade bronze kept in a painted jom covered by another vessel. The typical shapes of this painted Jorwe fabric, as it was designated after its type site, were carinated spouted vessels with funnel shaped mouths, concave sided carinated bowls, and highnecked jars with globular bodies. All these are painted in black on the matt red surface, the designs generally being geometric. The handmade, thick, coarse grey is represented by urns with flaring mouth and globular body. The interesting surface find is that of a double pot in grey fabric. Its importance lies in its close similarity with an almost similar pot with painted horizontal bands, from the site of Kot Diji (now in Pakistan), a Harappan site.

68. Ibid., p.147ff.
69. Sankalia, H.D., and Deo, S.B., op.cit., pl.XXXV,No.3.
70. Thapar, B.Kr, op.cit., pl. XVIII, B; this pot is now in the Prince of Wales Museum of Western India, Bombay.
The lithic blade industry consisted of the usual parallelsided flakes, lunates, scrapers, penknife blades etc.

There was no evidence of structures nor the burials.

At this juncture it is necessary to review the importance of the discovery of Brahmagiri in the South and Jorwe in the north, and its repercussions on the protohistoric studies of the Deccan. As already noted, by the time Jorwe culture, chalcolithic in nature, was brought to light, the sites of Brahmagiri and Sanganakallu were excavated and had yielded chalcolithic elements, and also an association of a painted ware. A comparison of the results of these excavations with those of Nasik and Jorwe exhibited a conspicuous similarity and at once indicated that some contacts might have existed between these early communities of the south and north, particularly as the occurrence of the grey ware, the painted ware and the blade industry indicated. But the sites were far apart and the intermediate link had to be discovered.

The explorations carried out by the western circle (later southwestern circle) of the Archaeological
Survey of India and the Deccan College, Poona, brought to light a number of sites in the region in between, of which the most notable are Prakashe on Gomai, Bahal on the Girma, Nevasa on the Pravara, Kopargaon, Bhojpur, Sinnar etc. Of these sites, Bahal (1952), Prakash (1954) and Nevasa (1954–56) were excavated by Deshpande, Thapar and Sankalia and others. The last mentioned site was excavated horizontally. Before detailing the results of these excavations, an account of the explorations will be reviewed briefly. For many more sites have been explored and excavated, the results of which are not of little importance for the present study.

It has already been referred that Mr. Deshpande, the then Superintendent of the Southwestern circle, who had already excavated a couple of chalcolithic sites, planned the survey in the Deccan in the light of the problems of neolithic-chalcolithic inter-relationship. The results of the survey were quite rewarding.

The explorations in the Dhulia district since 1957 in the valleys of Tapti, Kan, Panjhra, Amaravati, with their tributaries, Rankanala etc., brought to light a large number of sites belonging to the chaleo-
The chalcolithic complex. The sites included habitation as well as burial sites, adjoining or very close to the former. These sites yielded a variety of antiquities. The main pottery fabrics include a ware comparable to that found late Harappan levels, the grey ware met with in the southern Deccan, the Jarwe ware and a distinct group of painted ceramic which differed in fabric, shape and painted motifs from the normal chalcolithic pottery of the region, designated as the 'Savalda ware', after the type site where its distinguishing features were first noticed. The savalda ware is very interesting for the unique painted motifs on them. The paintings are chiefly executed in black and occasionally other pigments like violet, brown and ochre are used. The painted motifs, besides linear patterns, include stylised fish, peacocks, antennae hilted arrows, arrowheads, harpoons, saw-like designs etc.


Besides these, a large quantity of fluted cores and tools of chalcolithic blade industry, beads and terracotta objects, all ascribable to the chalcolithic phase on comparative evidence, have been found, in these newly explored K in the Tapi valley.

The results of the explorations in Ahmednagar district, confined to the Pravara valley was in no way less important. The most noteworthy of the newly discovered sites, is Daimabad. The assemblage of cultural equipment were similar to other sites of the region.

Besides these, many other sites discovered by several workers and worth mention are Nevasa (Deshpande), Chandoli (Deo and Ansari), Songaon (Inamdar of Aundh Museum) etc. These sites have been excavated and the results would be reviewed presently.

Further South, in the North Karnatak region, besides the work of the Kannada Research Institute, the districts of Bijapur and Dharwar were explored. The survey

74. Explored by Sri. B.P.Bopardikar, the discoverer of the famous site of Daimabad.

75. IAR, 1957-58, p.31; 1958-59, p.15; 1959-60, p.30; 1960-61, p.19. Daimabad has been excavated by Deshpande and the results would be reviewed in the following pages.

76. Progress Reports of the Kannada Research Institute, for 1953-54, pp.24-26.
by this Institute brought to light the sites of Saptasagar and Madhavpur in the Belgaum district,77 which yielded typical grey wares, polished axes etc. Regular, systematic village to village survey in the Bhima and Don river valleys in the Bijapur district and in the Tungabhadra with its tributaries the Varada and the Kumudvati in the Dharwar District.78

The explorations in the Bijapur region, revealed the fusion of the cultural elements of the southern and the northern Deccan. A number of sites79 yielded antiquities such as handmade pottery, painted pottery comparable to the wares found in northern Deccan ribbon flakes and cores, showing the wide spread distribution of this lithic industry. The other antiquities included polished stone axes, beads etc.. The chance discovery of the mound at Urohan situated on the left bank of the Bhima in Gulbarga

78. Bijapur district was surveyed by Shriyuts A. Sundara and P. Narayanababu of Archaeological Survey, Dharwar was explored by the writer.
is worth mention in this connection. Here the mound is strewn with antiquities mentioned above and as the mound is comparatively undisturbed, excavations would be highly rewarding. The painted black-on-red ware is similar to that of the Godavari–Pravara complex in shape and make. Interesting finds from this site are the long, copper spiral bead, the fluted cores and tools of blade industry.

As an official of the Archaeological Survey of India, the writer surveyed the southern and south eastern talukas of the Dharwar district. The river Tungabhadra and its tributaries Varada and Kumudvati drained the region surveyed. The explorations resulted in the discovery of nearly a dozen sites ascribable to the chalcolithic phase. All these sites yielded the typical handmade pottery, the grey ware, except at two sites where painted black-on-red ware also occurred. Besides these polished stone axes and, in a couple of places, blade flakes and cores were found. However, all the sites exhibited undoubted evidence of the neolithic-chalcolithic character and also

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82. Nagaraja Rao, M.S., 'Recent Explorations in the Tungabhadra Basin - The chalcolithic phase', BOCRI, Vol.XXXIII,pp.55-87; see also JASB, op.cit, p.158.
possible inter-relationship with the chalcolithic of the northern Deccan.

In the above survey is enumerated, in brief, the field explorations carried out since the discovery of the sites of Nasik and Jojawe. But, as already mentioned, a number of sites have been excavated in the northern Deccan the results of which will be detailed in the following pages. For from these, a broad picture of the chalcolithic of the Northern Deccan emerges in the light of which the inter-relation of the both the contiguous regions could be evaluated.

Deshpande excavated the site of Bahal, a tiny village on the left bank of the river Girna a tributary to Tapti, first in 1952 and again in 1957. The section of 38 feet at the site revealed a 35 feet cultural debris, which could be divided into five successive cultures on the evidence of the cultural contents, as follows:

(i) The Chalcolithic ; (ii) The Early Historic; (iii) The Satavahana or Indo-Roman; (iv) The late Medieval; and the Maratha periods.

The earliest occupation of the site was of the

85. IAR., 1956-57, pp. 117-118; The writer also participated in the second season's work at the site.
chalcolithic folk who settled on the black soil. This occupational period has been divided into two sub-periods, IA and IB.

Sub-period IA is the earliest phase and is characterised by the thick grey ware, comparable to the one found at Brahmagiri. There are very few shapes, chief of which are urns with globular body and flaring mouths, bowls with flat bases or Kunda types and the huge storage jars. The last mentioned show incised and applique decoration with figure pressed depressions. Particular mention must be made of applique female figurines on a storage jar. A few thinner varieties of the grey fabric show a post firing ochre on the rim and knobs of lids.84

Sub-period IB is marked by mainly the black-on-red painted ware with a variety of painted designs, mostly geometric in nature. The other antiquities worth mention are beads - Terra Cotta, shell and paste - blade industry comprising the parallel sided blades, serrated, lunates and trapezes, and the interesting terra cotta combs.85 Copper was meagre and is represented only by a lump.

84. The brief report in IAR, 1956-57, p.17, does not mention any other antiquity from this level except pottery. But the lowest levels also yielded blades of silicious material. However, on the ceramic evidence, it compares very well with the neolithic of the lower Deccan.

85. IAR, 1956-57, pls. XIX-XXI.
The same year (1957), Deshpande excavated the burial site of Tekwada, on the other bank of Girga, opposite Banal and exposed burials ascribed to Chalcolithic phase. He correlated them with IB phase of Banal. Incidentally it may be mentioned that no burials were found in the habitational area. Four burials, in all, were encountered in one trench. Three of these were urn burials while the fourth a pit burial. The urn burials were dug into the black soil, while the pit was found cut into the yellow clay below the black soil. The urn burials were of child burials. The remaining two were of huge storage jars covered with large bowls. Black-and-red ware bowls - 5 and 2 respectively - were found placed with the urns. Majority of these bore graffiti marks. One of the jars also yielded a number of beads of paste, a spherical carnelian and a tubular bead of steatite.

The extended burial of an adult, - 5' 2" in height interred in a pit cut into the yellow silt was oriented north-south direction with three vessels as burial appendage. They were, two bowls - one of grey ware and the other of black-and-red ware painted in the interior with groups of six strokes. The third vessel was that of a high necked jar with a squat body and straight high neck. The exterior of this vessel is painted

86. Ibid., pl. XXII
on the shoulder with curvilinear lines forming a shell pattern and joined together by a band of six oblique strokes at the top of each curved loop. This is definitely a vessel of jorwe fabric. The association of this painted with the grey and black-and-red wares has been criterion of the excavator to ascribe this burial and the others occurring in the same stratum to Bahal IB, on the opposite bank.

Prakash, at the confluence of Gomai and Tapti, was excavated by Thapar, a couple of years after the first season of Bahal excavation. The excavation of the 70 feet high mound revealed a 55 feet cultural deposit representing four periods of occupation.

The earliest occupation, as at Bahal, was that of the chalcolithic people, characterised by the lithic blade industry and a little quantity of copper. The pottery fabrics included some sherds of thick, coarse grey painted with ochre, a thin burnished grey painted in white with linear designs and a principal painted red ware with a variety of designs, executed in black, consisting of hatched diamonds, and other geometrical designs. However, animal motifs are worth mentioning. This fabric is similar to that of Jorwe.

89. Ibid., pl. XX.A.
Apart from these evidences, no other details regarding the cultures are as yet available.

Nevasa, overlooking the Pravara in Ahmednagar district has been excavated extensively during the years 1954-56 and 1959-61. This has provided a complete sequence from the chalcolithic to the medieval periods.

The chalcolithic period was characterised by the occurrence of polished stone axes, the blade industry and a meagre quantity of copper.

Of the stone tools, a number of complete tools, besides querns, rubbers, mullers and sling balls have been recovered from the excavations. Typologically, the tools, consisting of axes, adzes and chisels, present a striking similarity with those of the southern, particularly the specimens from Brahmagiri. However, the most important evidence is that of small 'factories' or 'workshops' proving that the tools were locally manufactured.


91. *IAR.*, 1959-60, pp. 25-28; 1960-61, pp. 1921. The report of 'excavations of these years is in progress.

92. Sankalia, et al., *op. cit.*, p. 151, Fig. 71.
The blade industry represented a variety of tools, the technique of manufacture being the famous crested guiding ridge. The copper objects found are chisel-cum-poker, fish hook and a celt.

The pottery from the site was of two kinds, (i) partly handmade and partly on turn-table; (ii) wheel-made.

The former wares are mainly grey wares with the burnished variety, some painted with ochre. The main types include huge storage jars, urns with flaring rims and bowls, lotas and lids.

The latter painted ware, is the wheel-made variety and mostly painted in black on a matt red surface. The types of most common occurrence are carinated bowls, small vessels, and spouted vessels with squat body and a high neck. The painted designs are monotonous geometric patterns - hatched diamonds, triangles, squares and rectangles and some depicting wavy horned antelope, dog etc.

93. Subbarao, B., 'Chalcolithic Blade Industry of Maheshvar (Central India) and a Note on the History of Technique', BDORI, Vol. XVII, No.1, pp. 126-149.

94. IAR, 1960-61, pl. XXXI, B.
The other antiquities from the site include beads of semi-precious stones such as carnelian, jasper and also the metal, copper; copper celts and fish-hooks; mention must be made of a terra cotta female figurine identified as mother Goddess. 95

The structural remains from the excavations show that the structures were small huts with lime floors and walls made of thatched bamboo screens plastered with mud, and the roofs were flat, or roughly sloping. The plan of the houses was probably square, rectangular or circular.

The most interesting evidence from the Nevasa excavation is that of the burial custom. 96 In the four seasons, a total of 133 burials have been exposed of which only five are of adults, the rest being those of children. All the burials are in the habitation area only. Adults in fully extended or slightly flexed manner were buried in shallow pits and buried in large jars, horizontally interred in pits. Children were buried in urns in a variety of ways, such as (i) single urns covered with a carinated bowl, (ii) double urns buried horizontally, placed mouth-to-mouth; (iii) double urns placed mouth-to-mouth and buried vertically and (iv) three or five pots depending upon the height of the child or adult, buried horizontally.

95. Ibid., 1959-60, pl. XXXI B.
The bases of the intermediate pots were cut and the mouth of the adjacent pot covered this base thus making a coffin of pots.

The general orientation of both the adult and urn burials was north-south, although roughly north-north-west and south-south-east was also found in some cases.

Of the adult burials, some were with no funerary appendage. In the case of all these burials, the portion below the ankle were missing. 97 In one burial two grown up boys were interred very close to each other.

Urn burial was also practiced in the case of adults. Two multiple pot burials have been unearthed. One of these was very interesting as, as many as five vessels were used to prepare the coffin. 98 Four of the vessels were of grey ware while one was a jorwe painted ware. The body was much disturbed, only the skull with the lower jaw, bones of arms and legs, vertebrae being intact. As many as nine vessels, spouted jars, carinated bowls and high necked vessels - formed the grave goods.

As mentioned above, all the child burials were

97. Ibid., 1960-61, p.20
98. Ibid., 1959-60, pl. XXX B.
in urns. However, two urns contained no bones but filled with earth. These were of either very young infants whose bones have disintegrated or they were just symbolic in nature. The urns used for these burials were generally of grey fabric similar to that of Brahmagiri. But instances are not wanting to show that painted vessels of red fabric were also used. At least seven instances were found in the third season. The examples of single urns and double-urns mouth-to-mouth, buried vertically provide striking similarity to those at Brahmagiri. 100

Almost all the burials were provided with grave goods consisting of bowls of different dimensions and spouted vessel, all painted in black with a variety of geometric designs and in a few cases animal motifs, such as wavy horned antelope in solid black. Some vessels also bore graffiti, and impressed marks including a figures of a man, pipal leaves, ma'tt impressions etc. The grave goods consisting of vessels numbered in one case nine while in another, it was four.

Some of the burials also showed that small pots and beads of shell, agate, carnelian and copper, were also

99. Ibid., p. 28.

100. AI, No. 4, pl. cviii A & cix, A and pl. c vii B respectively.
placed as burial appendage. In one instance, a copper bangle was found round the ankle of a child. However, the most interesting evidence is of a copper necklace of seventeen barrel-shaped beads found round the neck of a child. The beads were strung together with a thread of white silk," spun from cocoons on a cotton nep.\textsuperscript{101}

The importance of this site is further enhanced by the fact that it is the first site to be dated by C-14 method in the northern Deccan, and an absolute chronology for the protohistoric culture could be given. Two samples from the chalcolithic phase examined by the Pennsylvania University and TIFR, gave the dates, $3220 \pm 115$ and $3106 \pm 122$ B.P., showing that this culture definitely belonged to 1100 B.C.\textsuperscript{102}

Next to Nasara, Daimabad yielded very interesting and corroborative evidence for the reconstruction of the life of the chalcolithic man. The site was discovered by Bopandikar\textsuperscript{103} and excavated by Deshpande.\textsuperscript{104} It is

\begin{flushright}
  103. IAR., 1958-59, p.15.
  104. Ibid, pp. 15-18; The writer also participated in these excavations.
\end{flushright}
situated midway between Jorwe and Nevasa, overlooking the Pravara. As many as six trenches of 20 feet square were excavated to know the cultural sequence. For the surface collection of antiquities had shown the presence of the handmade grey ware, the Malwa ware and the Jorwe ware, besides hundred of blades of chalcedony and chert, and a number of polished stone axes. The excavations showed that the cultural deposit was 15 feet in thickness belonging to a single culture complex, viz, the 'Chalcolithic', and three distinct phases could be demarcated on the basis of the ceramic evidence.

The earliest phase belongs to the first inhabitants of the region who settled on the black soil as at Nevasa. The main ceramic of the phase is the thick, coarse and burnished grey wares exactly similar to those of Brahmagiri. This was handmade and consisted of the following main types: large globular pots with flaring rims, subspherical bowls, and lids with knobs having a pointed tip which is painted with red ochre. Large troughs, platters and huge storage jars also occurred and they were decorated with linear, incised or applique with pressed decorations. Painted pottery was scarce, but special mention should be made of the fragment of a huge jar, which though not recovered from the regular excavation could still be regarded as belonging to this phase, as it was found resting on the natural soil. It was treated
with a pinkish buff slip on the exterior, which was profusely painted with a jungle scene in two horizontal compartments. The upper compartment had a muscular human figure with two deer approaching it as if enchanted and peacocks in between; the lower had three tigers springing away in the opposite direction. The bodies of the animals were hatched in broken lines. 105

The depiction of the human figure shows that it is not merely conventional but an attempt to show the muscularity of the limbs. The right hand of the figure rests on his hip while the left hand is outstretched. He wares a garment below his waist, probably of leaves resembling that worn by the modern Katkari tribesman of the Konkan. Unfortunately the part depicting head is missing.

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105. IAR., 1958-59, pp. 15 and 17, fig. 8, pl. XXII B. This jar from its fabric and painted designs belongs to the Malwa variety and therefore, should be ascribed to phase II, which distinguishes itself on the basis of the Malwa ware which is the main ceramic of the phase. It was found in a section of the mound. Just because it was found resting on the natural soil, on the slope of the mound, it cannot be ascribed to the earliest phase. In the excavations which was considerably extensive Malwa fabric occurs only sparsely in phase 1.
The other antiquities deserving mention are the lithic tools of blade industry; beads of terra cotta and semiprecious stones; and fragment of a mace-head.

The succeeding phase, phase II was distinguished by the predominence of the Malwa ware, the main ceramic of the chalcolithic sites of Narmada valley. This ware is decorated in black on red surface. The main types occurring in this site, are: the sub-spherical bowl, sometimes with tabular spouts, shallow cups, rimless hundi types, and the high necked jars. Fragment of a channel spout, with painted design is worthy of note as similar channel spouted bowls have been found at Navadatoli which are said to indicate contacts with Iran. 106

The decoratively designs were geometric in patterns, including triangles, squares, lozenges, hatched or filled, oblique vertical and horizontal strokes; non-geometric patterns, such as hooks, loops, and animals and birds,

include, dog, deer, goat, tiger, crane and peacock. A meagre quantity of grey ware continues in this phase.

The blade industry continued in large quantities and copper objects consisting of a fragmentary celt, a pinhead and fragmentary knife blade occurred. 107 Beads of carnelian, shell and faience, terra cotta bull and the head of a dog are the other note-worthy finds.

The occupation of the site is without a break but the new element in the third phase is the predominance of the Jorwe pottery, of well irrigated clay, made on fast wheel and fired at very high degree of temperature and giving a metallic ring. The usual types, also met with at Jorwe and Nevasa are the spouted, carinated pot, the carinated bowl and the high necked jar with a squat body. The painted motifs are also predominantly geometric, although animal motifs are also present. Mention must be made of a bowl, the rim of which was also painted, and the interior depicted in stylised fashion, supposed to be the union of a male and female, 108 while two other sherds show a crane and serpent. Many vessels had peculiar marks on them which are called the 'potter's marks', a feature also noted at Nevasa. Handmade grey ware persisted, particularly being used in child burials.

107. IAR., 1958-59, pl. XXI B.
108. Ibid., p. 16, Fig. 17.
This phase showed an increase in the blade industry, compared to the previous phase. Stone maceheads or ringstones, perforated discs, beads of semiprecious stones and a gold coil, two terra cotta human figurines and a dog are the other antiquities reported.

Though a large number of polished stone axes were collected from the surface of the mound, as at Askki, not one was found in the stratified deposits. The only tools of the neolithic complex are the so-called maceheads already referred to.

Of the structures of the period, the evidence of postholes show that they were either circular or rectangular in plan. The floors show that they were of rammed clay mixed with husk and plastered with lime. The thick deposit of lime resting on black clay, on the periphery exposed in one of the trenches showed that it could have been an embankment raised to check the floods.

Burials were found in all the three phases.

The one example of extended burial belonging to the earliest phase showed the dead was interred in the habitation only. It was oriented north-south. But the upper part of the body was cut off by a later pit, and therefore, it is not possible to say whether any grave
goods were placed near the skull.

Phase two, also yielded an adult burial in an oval pit dug for the purpose and interred in north-south orientation. No burial furniture was found. The portion below the ankle was missing or deliberately cut off, a feature also noticed at Nevasa.

The last occupational phase of the site, two adult skeletons were noticed. One of them was very much damaged; the other, of an adult buried in north-south orientation was resting on a floor level. Again the lower extremeties were missing and the burial was bereft of any grave goods. Since no pit was traced and a series of 14 post holes found around the skeleton, suggesting a canopy above, the excavator thinks that it was a

109. IAR, 1958-59, pl. XXIV. A.
110. Ibid., 1960-61, p. 20 and pl. XXXI A.
case of lying in state before burial. 111

The latest inhabitants of the place practiced urn burials in the case of children and grown-up boys. Skeletal remains of children, the skull, the ribs and the lower extremeties were placed in two grey urns which were placed horizontally and mouth-to-mouth and buried in the narrow pits just sufficient for the purpose. In the case of small children, only one urn was used. An instance showed that the urn was placed horizontally with the mouth facing south. In the case of grownup children three urns

111. It is hard to conceive that the dead was laid in state under a canopy and was never given a ceremonial burial. Nor is there any evidence to say that his kith and kin left the dead lying there, probably because of fire or any other reason. As is well known the chalcolithic folk buried the dead in the habitation and even under the floor of the house in which they lived. Therefore, this was probably a burial under the floor, and the 14 postholes are those of the posts which supported the roof of that structure under which the burial was interred. Or the other possibility could be that the dead was laid and covered with mud and a timber structure canopy was erected supported by posts. The structure has since then disintegrated and only the postholes are remaining. Some of the communities in Karnatak, even today erect a shade of thatched coconut palm leaves supported by four posts, over the burial, with the intention that dead lying below should be protected from the Sun.
were used, as at Nevasa. These burials were provided with grave goods consisting of painted vessels such as carinated vessels with spout and concave-sided carinated bowls. Bone beads were also found in one of the burials.

Thus, next to Nevasa, Daimabad has given an excellant account of the life of the chalcolithic people in the Northern Deccan, even though the excavations have been of limited nature. No other site in Northern Deccan, nay, in the whole of the Deccan, would be more promising than Daimabad to know the details of not only the chalcolithic culture but also the neolithic southern Deccan represented at this site in the earliest phase. What is now required is a large scale, horizontal excavation.

Quite a number of sites have been discovered during the explorations in 1958, in the middle region of the Tapti valley besides the sites already found by Sali.

112. IAR., 1958-59, pl. XXV B; cf. Nevasa, IAR., 1959-60, pl. XXX B.
113. Ibid., 1958-59, pl. XXV A.
114. Ibid., p. 22.
115. Ibid., 1958-58 onwards.
Of these, two sites Bahurupa and Sawalda were dug by Joshi. 116 Both these sites are very near the site of Prakash excavated by Thapar and mentioned above.

The site of Bahurupa on the northern bank of Tapti showed a very meagre deposit 1½ feet, and that too much disturbed. Except pottery and microliths nothing is reported. The pottery was of the painted variety, majority of which were painted in black with a rich variety of geometric designs. 117 Animal and fish motifs were also found. Mention must be made of a sherd depicting "a wild animal with erect hair on the back and chasing another, whose curled tail is only seen." 118 The pottery include the white painted black-and-grey also met with at Prakash. The other elements of the industry also occurred.

Sawalda, however, contained better undisturbed deposit of about 12 feet. The site was occupied in two periods, comparable to Prakash.

Period I was of chalcolithic characterised by the usual painted pottery encountered at Prakash and Bahurupa and the designs are similar and do not show much

117. Ibid., p. 35, fig. 35.
118. Ibid., No. 10.
variety;\textsuperscript{119} The coarse grey ware; and a few blades of chalcedony. The types are commonly met within the excavated sites of Maharashtra and Karnatak.\textsuperscript{120}

Period II showed the occurrence of black-and-red ware, black ware and the types associated with HBP. The pottery of the earlier phase is said to be absent.

Chandoli near Poona situated on the river Ghad, a tributary to Bhima, was discovered by the information given by a school teacher, at Manchar, a village nearby.\textsuperscript{121} It was excavated by Deo and Ansari in 1961.\textsuperscript{122} The excavations showed that it was a one-culture site, belonging to the chalcolithic period, and having no superimpositions, of later occupations. The maximum thickness of the deposit, even of the chalcolithic phase was found to be only about a metre (app. 3 feet).

The chalcolithic phase was not different from the

\begin{itemize}
  \item\textsuperscript{119} It is surprising that while Sali discovered a large number of motifs, (\textit{JASB, op. cit.}), nothing is reported from the excavations.
  \item\textsuperscript{120} \textit{IAR.}, 1959-60, p. 36, fig. 15.
  \item\textsuperscript{121} \textit{Ibid.}, 1957-58, p. 67.
  \item\textsuperscript{122} \textit{Ibid.}, 1960-61, pp. 26-27; and Deo, S.B., and Ansari, Z.D., \textit{Chalcolithic Chandoli}, Poona 1965.
\end{itemize}
already known evidence from several excavated site in the region. The principal characteristic features were, the occurrence of painted pottery, blades of chalcedony, variety of copper objects, stone and terracotta objects.

The excavators have distinguished six major varieties of pottery fabrics, viz., (i) Jorwe, (ii) Grey with occasionally painted with ochre, (iii) Coarse red, (iv) Malwa; (v) creamslipped; and (vi) Creamslipped and black-and-red wares.

In the Jorwe fabric, the usual types such as concave-sided carinated bowls, spouted vessels, globular pots with high necks occur. The painted designs in black include the geometric patterns and a few depicting the antelopes, mountains and trees. The Malwa ware does not show any new types other than those found at Navdatoli, with the exception of two types. The latter include, a vessel with tubular spout and the legged stand. The creamslipped ware at Chandoli shows a degeneration compared to that of Navdatoli. The shapes too were confined to high necked jars and globular vessels. The designs painted in black were of palm leaves, concentric circles and banners.

The metal objects were mainly of copper. These
copper implements consisted of "two chisels with levelled edge and square section, an axe and leg ornaments." The most interesting specimen is that of a dagger with a long antennae-ended tang with a leaf-shaped mid-rib. It is the first example recovered from excavations and could be compared with the Fatehgarh and Kallur swords.

Of the stone objects, mention may be made of querns, mace-heads and hundred of slingballs. The only example of a polished stone axe of dolerite was blunt due to use.

Lamps, wheels and perforated discs were also found. But the bottle vessel painted in black with strokes all over the body, representing the form of a bull with legs, tail and hump attached by applique method, is worthy of note as similar theriomorphic pottery vessels are found in West Asian sites of Hissar and Sialk.

There were no evidences regarding the structures, but the lumps of clay with bamboo impressions showed that the walls must have been of thatched bamboo screens plastered with mud. Semicircular hearths and circular 'Kundas',

123. IAR., 1960-61, pl. XXXIV.
the latter containing ash and charcoal were the features noted.

Unburials confining to children were common. There were twenty-four burials in all of which two were of adults. Around the neck of one child was found a necklace of barrel-shaped copper beads with a red jasper bead at the centre, strung together with a thread, identified as silk or flax. It may be noted that a similar necklace was found round the neck of a child at Nevasa, referred to above. One of the adult burials was in a coffin made of 3 urns. The skeleton in the pots showed burning marks, and the feet below the ankle were missing as at Daimabad and Nevasa.

Next to Nevasa, Chandoli is of importance because of the C 14 determinations obtained for its early stratum. The samples from layer 2, the lowest stratum, have given the following dates; $1330 \pm 70$ B.C.; $1330 \pm 70$ B.C.; and $1240 \pm 190$ B.C.

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125. IAR, 1959-60, p. 23.
126. Ibid, 1958-59, pl. XXIV A.
127. Ibid, 1960-61, p. 20 & pl. XXXI A.
128. Deo, S.B., and Ansari, Z.D., C op. cit., p.25.

The carbon samples were processed by the Radio-Carbon laboratories of University of Pennsylvania and the Tata Institute of Fundamental Research.
In the proceeding pages, a detailed account of the explorations and excavations so far carried out in the northern and southern Deccan has been given. The results of these reveal, besides a large number of the sites of this culture complex, the main characteristic features with the regional variations and peculiarities, which may be summarized here.

The excavations in the southern Deccan, show that the region was occupied during the later 3rd millennium B.C. as evidenced by the Utnur C.14 determinations, by a pastoral-cum-food producing folk. They lived on the 'made grounds' or 'open spaces' in the granitoid, castellated hills and probably practiced agriculture.

They seem to have lived in small huts, the plans of which are not clear, with walls of bamboo screen, plastered with mud and supported by wooden posts. They domesticated the animals such as cows, bulls, buffaloes, goats and sheep.

Their culture distinguished by the use of generally handmade pottery, although some wheelmade, painted black or violet-in dull red surface are also found. The most striking feature, however, is the use of the ground stone tools such as axes, chisels, adzes and hammers etc.
are made of the locally available basalt to manufacture these tools. The other lithic industry associated with these small communities, is the blade industry made on silicious materials such as chert, jasper and chalcedony. The technique noted is the 'crested guiding ridge technique'. These people have also used the metal copper but scarcely.

The burial custom noted among them is that the adults were interred in pits and provided with pottery, such as spouted jars, and bowls for use in the afterlife. Children have been buried in urns, sometimes in crouched position.

While these are the general characteristic features of the 'Neolithic' folk of the southern Deccan, the life and main characteristic features of the 'Chalcolithic' people of the northern Deccan are well delineated because of the large scale excavations.

These people seem to have occupied the river valleys of the northern region around 1700-1300 B.C. The excavations have shown that they lived in circular, rectangular and square huts with walls made of bamboo screens-plastered with mud. Their main ceramic industry was a wheelmade painted ware, made of well-ligated clay, fired at a very high degree of temperature and above all
painted in black with a variety of designs, which include geometric, plant, animal and human motifs. The handmade grey wares noticed in the southern region also occur but in minority.

The blade industry, the major lithic industry, the polished stone axes being rare. In the former, the materials used are the same, viz, chart, chalcedony and silicious ones, as also the technique which have been noticed in the south.

The use of copper is also attested to by the finding of copper celts, necklaces, beads, fishhook etc..

The burials present a better picture, the adults were buried in pits and also in coffins of three or more jars. Children were buried in urns, of grey fabric. Adults as well as children were provided with vessels, probably for use in the life after death. Some of the children were found wearing necklaces of copper beads, or beads placed along with the pots.

Thus from the above account, it is very clear that there are many features of similarity and contrast between the northern and southern Deccan. The points of
similarity were: (i) the occurrence of grey wares, particularly the urn-types; (ii) painted pottery; (iii) the polished stone tools; (iv) the blade industry; and lastly (v) the burial customs.

The features of contrasts were:

(i) The general and major use of handmade pottery in the south, and the wheelmade painted pottery in the north; (ii) The majority of tools of the south being polished stone axes and their rarity or absence in the north; and (iii) The southerners generally living on the castellated hills, while the northern folk occupied the river banks.

To know further, the details of the mode of life, their similarities and contrasts, the writer carried out further field survey and excavations in the southern Deccan, which will form the subject of the next chapter.