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The Prehistoric Cultural Background of Rushikonda and Chandrampalem Basins in Visakhapatnam Coast

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ABSTRACT *The coastal region is endowed with beautiful landscape such as bays, ridges, creeks, beaches, bad lands etc., which gained much attention by the geologists and geomorphologists. The main stream together with the sub streams drain towards further east cutting through the hillocks. In fact the catchment area or the watershed area of Maddigedda is divided into two basins the Chandrampalem (Western bigger basin) and the Rushikonda (Eastern smaller basin) is due to the gorge in between the local hills. The evidence characterizing Mesolithic cultural phase and Neolithic sites are located at the foothills, and most of them are located in the vicinity of the present day settlements but at a higher elevation*

INTRODUCTION

The northeast coastal Andhra Pradesh had been subjected to prehistoric investigations to understand of Neolithic and Megalithic lifestyles, by observing the local tribal and peasant communities laid a path for ethnoarchaeological studies. The studies gained momentum in interpreting archaeological data as excavations have resulted in the location of archaeological evidence in the form of artificats made on split pebbles from the junction of the pebbly and boulder gravel. The coastal region is endowed with beautiful landscape such as bays, ridges, creeks, beaches, bad lands etc., which gained much attention by the geologists and geomorphologists. Of all these landforms the Bad Lands are subjected to scientific enquiry with regard to their origin morphology and chronology. In recent years these Bad Lands (red beds) are subjected to archaeological investigation.

The pioneering work in this direction was initiated by Cammiade and Burkitt way back in 1930 who had brought out microliths in the forested environment on the left bank of the Godavari River near Rampachodavarm. Subsequently Rao (1971) and Kasturibai (1992) have also brought out microliths in the upper reaches of Eleru valley. The other notable study in the region was tracing out Neolithic-Megalithic cultural complex at Madhurawada by Reddy (1972). Exploratory studies of Bhaskara Murty (1975) and Srinivasa Murty (1986) on the evidence of microliths and flake tools respectively have projected the prehistoric inhabitations around Visakhapatnam city. It is clear from the studies that the red beds though appear to be homogenous but they are horizons for Middle and Upper Palaeolithic, Mesolithic and Neolithic cultural phases. Subsequent investigation along the courses of Gambheeram drainage system by Prakash (1981) consolidated hither to haphazard evidences into a systematic prehistoric cultural chronology. Though on relative scale, he brought out a succession of prehistoric cultural phases, right from Lower Palaeolithic to the Neolithic coupled with the respective stratigraphic horizons. A specific study on Neolithic culture by Naseem Amir (1982) brought out the settlement patterns of early farming communities of the region. The Neolithic ritual complex unearthed at Paradesipalem (Prakash, 1994; Prakash et al, 1994) boosted up the richness of the prehistoric heritage of the region. The archaeological investigations in the erstwhile Srikakularm district by Krishna Rao (1985) had brought out the Neolithic and Megalithic cultural evidence.

The present study is mainly aimed at understanding prehistoric cultural background of Rushikonda and Chandrampalem basins in Visakapatnam coast. Keeping in view prehistoric cultural background of these regions namely Rushikonda and Chandarampalem assemblage includes uni-facial choppers, worked split flakes, used split flakes, split pebbles, split flakes, and an anvil, medium to coarse grained quartzite pebbles were used. The artificats have a flattish to sub-rounded base formed by the context. The pebbles are split both vertically and horizontally. The split pebbles, which are neither retouched nor used has a dorsal cortical surface and a ventral split surface and a thin cross-section. These split flakes show use marks but no evidence of retouch. A few flakes are retouched along one side and have been termed worked split flakes.

The main stream together with the sub streams drain towards further East cutting through the hillocks. In fact the catchment area or the watershed area of Maddigedda is divided into two basins the Chandrampalem (western bigger basin) and the Rushikonda (Eastern smaller basin) is due to the gorge in between the local hills basing on the geomorphic landscapes. The microlithic industry of the Rushikonda is not associated with any ceramic material. Keeping these empirical observations the industry can be categorized as geometric aceramic industry. Similar investigation along with coastal strip resulted in the discovery of pebble tool assemblages at the Rushikonda site about 250 m. inland from the shore exhibits a variety of geomorphological features of alluvial and marine origin, as well as archaeological evidence. Boulders and pebbles laid in a ferruginous matrix are found in the surface of a wave-cut rock terrace at Rushikonda.

The occurrence of split pebble assemblage in a buried context at Rushikonda on the one hand, and the surfacial occurrence of hand axe-cleaver-scraper tools at both Vadapalem (half a kilometer south of Rushikonda) on the wave-cut rock platform at Rushikonda where pebbled hand axes (Prakash, 1981), leads one to conjecture that this split

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pebble assemblage might be distinctive to this region. The evidence characterizing Mesolithic cultural phase is recorded at foothills, on stream banks and on the beach. One interesting aspect of the culture is it invariably associated with red soil topography. It has a stratified horizon within the red soil generally below 70 cm from the top. Wherever the top red soil is eroded they are found on the lower horizons either of pellety/ferruginous gravel or brown/yellow soil. The artificats are small in size when compared to Upper Palaeolithic blades. The tools are made mostly on blades. Quartz is the chief raw material. The source for the raw material is within the valley in the form of vein quartz in the local knondalite formation. Quartz is of two types, the glassy and milky type. The artifacts are fresh. A few of the microliths developed red stain due to their contact with red soil. The backed blades are perfect in shape. The Neolithic sites are located at the foothills, and most of them are located in the vicinity of the present day settlements but at a higher elevation. This pattern has resulted in the great erosional activity exposing the cultural material. Material evidence in the form of potsherds and other associated household objects are found in surfacial and stratified contexts. The red soil is the horizion for the Neolithic culture. The cultural material includes ground and polished tools such as axes, adzes and chisels, potsherds, mace heads, saddle querns, stone tablets etc. The cultural material includes ground and polished tools such as axes, adzes and chisels, potsherds, mace heads, saddle querns, stone tablets etc.

Exploration

The prehistoric investigation in the Rushikonda of the Maddigadda hill stream has resulted in the identification of one site each in the basins. Each site is characterized by the occurrence of microliths made on quartz denoting the evidence of Mesolithic cultural phase. In the same valleys, but at different locale potsherds of course grained nature associated with ground and polish tools indicating Neolithic culture are found in the both basins. The microliths are profusely found on the brown or yellow soil, while the Neolithic material at the margins of the eroded surface of the red soil. In a nut shell the microliths found their place at the center of the valley where as the Neolithic remain are restricted to periphery of the basins. The microliths are the only cultural materials characterizing the Mesolithic phase, while pottery, ground and polished tools, saddle querns, mullers and stone tablets characterize Neolithic phase.

Mesolithic Culture

The site wise distribution indicates more number of artifacts in Chandrampalem basin than the Rushikonda basin. It is further observed from the table that more number of chips is found in Rushikonda than the Chandrampalem in spite of Chandarampalem basin is given more number of finished forms. It is further observed that the ratio of finished forms to byproducts is about 1:2 in Chandrampalem while 1:3 in Rushikonda. Table-1 shows that these artifacts are classified into different types such as finished forms, flakes and chips. The microliths recovered from both the sites consists of 435 pieces in total. Out of which 265 (60.92 per cent) are from Chandrampalem while the reaming 170 (39.08 per cent) are from Rushikonda site. Out of the total recovered microliths of the valley 43.68 per cent (190) are the finished forms, while the reaming 56.32 per cent are byproducts, such as flakes account for 24.37 per cent (106) and chips 31.95 per cent (139).

Table 1: Site wise distribution of total artifacts

S.No	Artifact	Chandrampalem	Rushikonda	Total
1	Finished	139 (73.16)	51 (26.84)	190 (43.68)
2	Flakes	78 (73.58)	28 (26.42)	106 (24.37)
3	Chips	48 (34.53)	91 (65.47)	139 (31.95)
	Total	265 (60.92)	170 (39.08)	435 (100)

The details of the site wise analysis are presented in table-2 and figure-1. Among the finished forms the Chandarmpalem accounts for 73.16 per cent while Rushikonda accounts for 26.84 percent. The finished forms are further classified into blades of simple and backed type, points of simple and tanged type, and scrapers based on the size, shape, technique of manufacture, retouched and use marks.

Table 2: Site wise distribution of finished forms

S.No	Type of Tool	Chandrampalem	Rushikonda	Total
1	Simple blades	42 (70.00)	18 (30.00)	60 (31.58)
2	Backed blades	60 (71.43)	24 (28.57)	84 (44.21)
3	Simple points	3 (100)	--	3 (1.58)
4	Tanged points	4 (100)	--	4 (2.11)
5	Scrapers	30 (76.92)	9 (23.08)	39 (20.52)
	Total	139 (73.16)	51 (26.84)	190 (100)

Figure-1: Microlith's distribution of finished forms

The backed blade tool type accounts for 44.21 per cent followed by simple blades and scrappers account for 31.58 per cent and 20.52 per cent respectively. The simple and tanged points found only in Chandrampalem basin, which accounts for 1.58 per cent and 2.11 per cent respectively. It is interesting to note that the backed blades dominate the collections in both the sites. Since the backed blade element seems to be an important tool type of the sites they are further classified into backed points, backed knifes, lunates and trapezoids.

The data of table-3 indicates that 71.43 per cent of backed blades have come from Chandrampalem whilethey reaming 28.57 per cent are from Rushikonda. Both the sites put together the backed points dominant the collection by about 38 per cent backed points, 25 per cent backed knifes, while the reaming 37 per cent are of geometric forms. Among the geometric forms lunates 21.43

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percent are higher than the trapezes (15.48 per cent).

Table-3: Site wise distribution of Backed blades

S.No.	Type of Tool	Chandram-palem	Rushikonda	Total
1	Backed points	22 (68.75)	10 (31.25)	32 (38.09)
2	Backed knives	18 (85.71)	03 (14.29)	21 (25.00)
3	Lunates	11 (61.11)	07 (38.89)	18 (21.43)
4	Trapezes	09 (69.23)	04 (30.77)	13 (15.48)
	Total	60 (71.43)	24 (28.57)	84 (100)

The other dominant tool type is the scraper. This type is represented by 39 numbers in the total collection. The table-4 reveals that out of which Chandrampalem is represented by about 77 percent, and Rushikonda 23 percent the collection.

Table-4: Site wise distribution of Scrapers

S.No.	Type of Tool	Chandrampalem	Rushikonda	Total
1	Single side	11 (78.57)	03 (21.43)	14 (35.89)
2	Double side	07 (77.78)	02 (22.22)	09 (23.08)
3	Notched	06 9 (85.71)	01 (14.29)	07 (17.95)
4	Convex	02 (50)	02 (50)	04 (10.26)
5	End	04 (80)	01 (50)	05 (12.82)
	Total	30 (76.92)	09 (23.08)	39 (100)

These scrapers are further classified into single side, double side, notched, convex and end type scrapers. Among these subtypes single side scraper dominates by 35.89 per cent followed by double side scraper 23.08 per cent, notched (17.95 per cent) and end scrapers 12.82 per cent and convex 10.26 per cent.

Measurement of the Excavation

The southeast of the Rushikonda basin has been selected for trail excavation. A trench measuring $4X^2$ meters has been laid in north-south direction across the undisturbed red soil layer. They layout has been further divided into 1 square meter blocks, thus eight blocks arrived initially, alternate trenching has been adopted to dig the red soil. They are A1, A2, A3, A4, B1, B2, B3 and B4 initially the north east corner block A1, was taken up digging subsequently B1, later on B3, A3 are taken up. The digging at 5 cms depth is adopted slowly. The earth is removed on open strip method. Up to a depth of about 40 cm. the red soil is sterile and homogenous, at this level small pebbles, potsherds made their apparent and continue to a depth of about five to 10 cm.

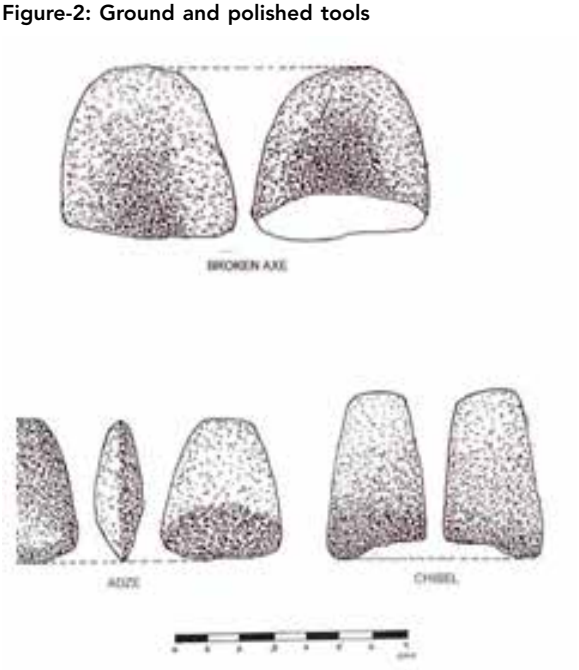
Here and there ash patches are also noticed, right from 40cms depth to about 50-55 cm depth. Thereafter, the excavation continued up to 80 cm depth but, no archaeological material between 55-80 cm. depths is available. In all the trenches the same phenomena appear to be common and no significant structural features are noticed. Therefore the excavation had been abandoned, the eroded surface towards A4 and B4 blocks of the trench has been taken up to scrap the section as, some potsherds are exposed within the section. Though their antiquity is not confirmed with any other none associated material, the objects are unearthed and described for their techno-typological parameter.

Neolithic Culture

The surface collections pertaining to Neolithic culture, in both the basins, include ground and polished tools, broken pot pieces, household objects like saddle querns, mullers and rubbers, and stone tablets (figure-2). The collection of ground and polished tools consists of two complete forms and two broken forms. The complete forms are classified into two as an adze and a chisel, the former from Chandrampalem while the latter is collected from Rushikonda basin, while the broken forms are from Rushikonda basins. Careful observation of the broken pieces seems to have been the parts of axes. Therefore the total collection includes two axes and one each in the categories of adze and chisel. A ground stone axe is roughly triangular in form, though the exact shape varies, it being border narrow, and square or elongated. In an axe the two border surfaces- the upper and the lower meet in a gentle are rarely oblique slope to from the cutting edge. The butt-end is pointed, rounded are even square or rectangular.

Thus for a proper understanding of the ground stone axe type, it is necessary to know its cross section at the butt, in the center and the edge. It is generally fairly thick. Generally, the grinding or polishing is found on the broad cutting edge, at times on the body, and very rarely all over the surfaces. The one-characteristic feature of a ground axes is that it was hafted such a way that the cutting edge was parallel to the handle.

Figure-2: Ground and polished tools



The collected broken parts are part of a ground and polished axe. An adze is a thin, triangle piece made normally on a flake. It is flat on one surface, while other is slightly convex and meets at the edge. The section is plano-convex and the edge beveled. The beveling might in some cases be done from both the surfaces. As adze is essentially a carpenter's tool, through it is said to be used for agricultural purpose also meant for smoothing and beveling irregular surfaces of wood.

Hence it is hafted in such a way that cutting edge is transfers; that is, at right angles to the handle. As a rule it is the beveled edge, which is ground while the entire outer face is slightly rounded. The Adze collected at Rushikonda site measures 42 mm. maximum length, 37 mm. breadth at

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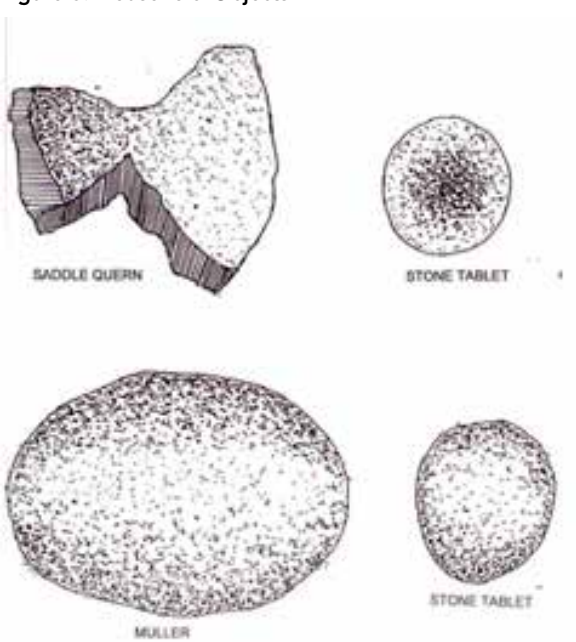
functional edge, 14 mm. the maximum thickness, and 21 mm. breadth at butt end. Like any metal chisel, of which it is an exact proto type, a stone chisel is a small, narrow, cylindrical or rectangular piece, with two of its smoother sides tapering half way down the edge to form a broad edge. These as well as the adze apply to the timber so that the edge cuts a timber on a wide front across the fiber of the wood. The chisel collected in Chandrampalem basin measures 50 mm. maximum length, 31 mm. breadth at functional edge, 12 mm. the maximum thickness, and 19 mm. breadth at butt end. One corner of the tip end is broken. The raw material for fabricating the chisel seem to be a fine grained material, may be chert or basalt.

Household Objects

The collection includes three broken pieces of saddle querns and two mullers. These are made on fine-grained Khondalite flat stones and pebbles. They are recovered from a cluster of stones on the eroded surface of brown soil very close to the red soil horizon. It is at this period particularly that comparatively large, roughly square or rectangular stone slabs with flattish or concave surfaces appear along with ground stone tools in habitation deposits. Since the flat surfaces have been smooth and hollowed by use, these have been interpret as stone slabs which were employed by man for crushing and grinding or milling grain which was intentionally grounded or collected wild. They are called in archeological literature as saddle querns. Three types may be distinguished: Quern with a circular grinding surface, brought about by round, ball-like hammer stones or mullers, Querns showing up-and-down grinding surface with plano-convex mullers, and querns exhibiting both these features. The querns recovered from Rushikonda belong to the up-and-down grinding type (figure-3).

Figure-3: Household Objects



These are stone tools used for grinding grain as well as other materials like pepper etc, and they are in use all over India even today. But we can definitely see a kind of change and evolution in the type used, which seems to correspond with the changing habits and diet of man. While during the earliest period and for a long time to come, man seems to have used only natural pebbles for grinding purposes, we have undoubted evidence that from the time he began to cultivate cereals and pound them in to some kind of flour, an attempt was made to select stones suitable to his needs and also to treat them before using. With these the grain was crushed on a quern and kind of flour prepared.

The mullers are further classified into round ball-like, with surface pecked or roughened for grinding, round, but having two surfaces flattended or naturally flat, plano-convex mullers, having one surface flat and the other convex or slightly rounded, cylindrical mullers, cylindrical mullers thicker at the two ends, and thinner for the most part. The two mullers found at Rushikonda are of cylindrical type. Three stone tablets are recovered from the surface collections in Rushikonda basin. None are recovered from Chandrampalem basin. These are made on khondalite stone, and are flat with an average thickness of 12 mm. and sub round (2) to round (1) in their periphery. An ethnographic observation among the fishing communities along the Visakhapatnam coast has a parallel to interpret them as weights for net sinkers.

Conclusion

The reconstruction of Neolithic and Megalithic lifestyles had been made by observing the local tribal and peasant communities laid a path for ethnoarchaeological studies. These studies gained momentum in interpreting archaeological data as the northeast coastal Andhra Pradesh abounds in traditional tribal and peasant cultures. Interpretation of mace heads or ring stones as net sinkers or weights for digging sticks had been an ethnoarchaeological analogy observed from fishing communities and Konda Reddis. The surface collections as well as excavated material of pottery consist of mostly coarse red ware with occasional buff ware. The collection includes mostly of rim and neck parts.

However a few belly and bottom parts are also collected. The Neolithic cultural materials such as axes, adzes, chisels, saddle querns, mullers, stone tablets together with 12 varieties of coarse red/buff ware in the Maddigedda hill stream. Neolithic culture can be categorized as a variant of South Indian Neolithic culture, with an exception of smaller dimensions of ground and polished tools.

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