CHAPTER - III

SITES AND STRATIGRAPHY

Quaternary formations of the Eluru basin are mostly of alluvial origin and are confined to the present day river valley. The Eluru river was studied from its source to the mouth for a stretch of 140.48 Km and so were its three major tributaries such as Maddigadda, Madieru and Oonigedda. The valleys of the Eluru and its tributaries are rich in stone age evidences and a total of 38 stone age sites have been discovered. (fig. 3). Of these eleven sites had been earlier discovered by Cammiade (Cammiade 1924). Those sites have been revisited in the present exploration. At four of the sites listed by Cammiade no artifactual material was noticed by the present author whereas at six sites the collections were very meagre. At only one site (Ramanayyapeta) of Cammiade's list are a sizeable number of artifacts available. Cammiade mentioned only of microliths (Pygmy tools) and stray occurrences of Neoliths, but the present writer discovered evidences of other phases of the Stone Age, particularly of the Upper Palaeolithic. The present explorations have recorded the existence of a total of 27 prehistoric sites in addition to earlier discoveries in the area.

The Stone Age cultures of the Eluru Valley may be broadly classified as Upper Palaeolithic, Mesolithic and Neolithic. At one site, however, is a doubtful evidence of Lower Palaeolithic observed. Equally doubtful evidences
of the Middle Palaeolithic are observed at a few other sites.

The stone age sites in the Eleru basin are not all equally rich in their artifactual yield. The collections vary from as many as several hundreds of implements to twos and threes of implements. The sites are mostly situated close to water courses. Only two of them (Nimmalapalem & Yellavaram) are located away from the streams.

Even though there are 38 sites discovered in the area, only 32 are here taken into consideration for purposes of description and analysis. The following is the description of the stone age sites together with the stratigraphy wherever available. The sites are grouped under the head of the streams on which they are situated and are further arranged within each group in the same order as they occur proceeding from the source to the mouth of the particular river.

**Sites on Eleru River:**

1. Viravaram: \((17°36' 40'' N, 82° 1' 20'' E)\)

This is a border village of the East Godavari District. It is situated on the left bank of the Eleru River, at a distance of 18.00 Km from the source. Stray occurrence of Upper Palaeolithic tools have been noticed within a scatter of loose fine gravels which underlies yellowish red sandy silt.
2. Peddavadisakara: \(17^\circ 36'\ N\ 82^\circ 0'\ 40''\ E\)

This village is situated 2.4 Km down stream of Viravaram a little less than 20.8 Km from the source. The section on the right bank reveals bedrock at the bottom which is capped by yellowish red sandy silt. The sandy silt contains Kankar nodules. No tools are recovered.

3. Vedurunagaram: \(17^\circ 34'\ N\ 82^\circ 0'\ 30''\ E\)

This village lies 6.4 Km south of Viravaram. Stone tools are collected on erosional surface cut by a local stream flowing into the Eleru river. The dissected land exposed decomposed basal rock which is over-lain by loose cobbly, pebbly gravel. The gravel is capped by a thick deposit of reddish brown sandy Kankary silt. Both Upper Palaeolithic and Mesolithic artifacts are collected from the loose gravel wherever the top soil was eroded away.

4. Tummala Madugu: \(17^\circ 31'\ 50''\ N\ 82^\circ 0'\ 35''\ E\)

This village is situated 8 Km south-West of Viravaram on the left bank of the Eleru. A good section is exposed by a rain gully. There is bed rock at the bottom capped by cobbly-pebbly gravel which is in turn overlain by reddish brown kankary sandy silt. It is further capped by dark grey clayey silt. Both Upper Palaeolithic and Mesolithic artifacts occur as clusters wherever the gravel horizon got exposed.
5. Vetamamidi: (17° 28' N 82° E)

This place is situated 57.6 Km from the source and 4 Km south-west of Addatigala. Cammiade (1920) collected a few stone artifacts in the area. The present author picked up a few Mesolithic implements from the top reddish brown sandy silt.

6. Addatigala: (17° 25' N 82° 0' 5" E)

It is the head quarter village of Ellavaram taluk, situated 4 Km away from the left bank of the Eleru River. Cammiade (1920) reported the occurrence of microliths, two ground stone celts and funeral urns at four localities in the vicinity. The present writer, however, is able to collect only chipped stone tools. The artifacts of both Upper Palaeolithic and Mesolithic are collected from the loose gravel and red sandy silt accumulation respectively, nearby an outcrop.

7. Yellavaram: (17° 26' 45" N 82° 2' E)

This village is situated 6.4 Km south of Addatigala and 59.94 Km from the source.

The river flows through a steep sided valley at a depth of 20.1 m from the present surface. A good section of the left bank exposed weathered rock, capped by well cemented pebbly gravel to a height of 6 m above the bed. The gravel is overlain by Yellowish red sandy silt (6.3 m thick) followed by poorly cemented pebbly kankary sandy gravel (0.3 M thick). The second gravel is capped by reddish brown sandy silt (7.5 m thick) with calcium concretions (Fig.4,No.1).
The Upper Palaeolithic implements occur on the eroded slopes of the terrace in association with fine gravels, whereas Mesolithic artifacts on the slopy surfaces.

8. Matlapadu: (17° 24' 55" N, 82° 1'E)

3.2 Km South West of Yellavaram on the right bank of Eleru is the village of Matlapadu. A good section exposed by a rain gully shows moderately cemented basal pebbly gravel. The matrix of gravel is silty sand and the cement is calcium carbonate. The gravel overlain by reddish brown sandy silt, is further capped by a thin layer of yellowish sandy silt.

UPL1 and MSL2 tools occur on the eroded slope of the terrace, while the Neolithic tools on the top sandy silt.

9. Uppalapadu: (17° 23' 45"N, 82° 1' 45" E)

This village is situated 2.5 Km south of Matlapadu on the right bank of the Eleru river. The pre-historic site is located on the older alluvium which abuts against the hillock.

Excellent sections are preserved on both the banks of the river. The section (Fig. 4, No.2) on the right bank reveals Yellowish red clayey silt (6.1 m thick) overlain by reddish yellow sandy silt (0.5 m thick). Occasionally, the basal clayey silt possesses lateritic pellets. The later

1. Upper Palaeolithic
2. Mesolithic
deposit is disconfirmably capped by moderately cemented bouldery pebbly gravel (1.80 m thick). The lithological components of the gravel are charnockites, Khondalites, gneiss, vein quartz and laterita. The boulders and pebbles are laid in sandy silty matrix and the gravel is cemented by ferruginous material. The pebbly gravel is superimposed by yellowish red sandy silt (7.95 m thick) which in turn is overlain by less cemented kankary cobbly pebbly gravel (0.95 m thick). The matrix of the gravel is silty sand and the cement is calcium carbonate. This gravel is capped by top reddish brown sandy silt (2.7 m thick).

A little up stream of the above section, on the left bank of the river, the section (Fig. 4, No.3) shows basal strong brown silty clay (0.86 m thick) which occasionally contains iron concretions. This clay grades to a mottled clay (0.6 m thick). The clay bed is overlain by whitish sand of fine texture (0.4 m thick) which is capped by reddish yellow sandy silt (0.5 m thick). The overlying formations are similar to those observed on the right bank. This is the only site to give evidence for Lower Palaeolithic in Eleru valley in the form of derived specimens from the modern river bed. The UPL and MSL tools occur in fine gravel wherever the top sandy silt was eroded away. Apart from them another significant evidence is the occurrence of pottery and ground stone tools of Neolithic age at the foot of the hillock on the top of the sandy silt.
10. Timmapuram: (17° 20’ N 82° E)

This village is situated 13 Km south of Addatigala, and 68.8 Km from the source. 1.5 Km North West of the village close to the river, on the left bank tool bearing horizon is located on the older alluvium. Cammiade picked up some pygmy tools in the area. The section on the left bank consists weathered bed rock (6.3 m thick Charnockite) overlain by yellowish red clayey silt (3.99 m thick). The latter is superimposed by cobbly pebbly gravel (0.67 m thick). The matrix of the gravel is silty sand and the cement is calcium carbonate. The gravel bed is further overlain by reddish brown sandy silt (2.47 m thick) which in turn is capped by yellowish sandy silt (1.26 m thick, Fig. 5, No. 4). The artifacts of both UPL and MSL occur in the same stratified context as at other sites of the Eleru valley.

11. Flarrivada: (17° 40’ N, 82° 15’ E)

This village is situated 3.2 Km south of Timmapuram on the left bank of Eleru river. North west of the village a few microliths and a ground stone celt associated with pottery are collected from the top of the yellowish red sandy silt.

12. Krishnavaram: (17° 55’ N 82° 40’ E)

This village is situated opposite to Flarrivada on the right bank of the Eleru river. Two terraces are noticed and measure 11.25 and 7.5 m of T1 and T2 respectively. A section (Fig. 5, No. 6) of the right bank exposes the following composition from bottom to top. The exposed bed rock
measures 1.95 m above the water level which is capped by bouldery pebbly gravel (0.6 m thick). The gravel is rich in laterite pellets and sand. It is further overlain by compact yellowish red clayey silt (0.45 m thick) which in turn overlain by kankary pebbly gravel laid in a sandy matrix (1.27 m thick). The gravel is further overlain by yellowish red sandy silt (5.4 m thick) which in turn is capped by loose fine gravel (0.97 m thick) in a coarse sandy matrix. The gravel is further capped by reddish brown sandy silt (0.61 m thick).

13. Kolatur ford: (17° 21' N 82° 3' 45" E)

This place is situated 20.8 Km south of Addatigala and 2.4 Km west of Lakavaram village. The section reveals bedrock capped by yellowish red sandy silt (8.4 m thick) with lateritic pellets overlain by loose fine gravel with coarse granular sand and lime concretions. This is further capped by reddish brown sandy silt. The UPL and MSL tools have been recovered on the surface wherever the top reddish brown silt was eroded away.

14. Senapathipakalu: (17° 19' 15" N 82° 4' E)

This is a newly formed hamlet 2.4 Km downstream of the Kolatur ford. The prehistoric site is located at the foot of a small hillock overlooking the village on the left bank of the Eleru river. It is an extensive erosional terrace developed on the older alluvium which was badly dissected. UPL and MSL tools have been collected from the gravels of
the older alluvium in rain gullies and a single ground stone celt is picked up along with a few microliths from the top of the reddish brown sandy silt.

15. Lingavaram : (17° 18' 45" N 82° 3' 45" E )

This village is situated on the right bank of the Elaru and about 6.4 Km north-west of Elasuaram town by a foot path. The tool bearing locality is half a kilometer north-west of the village on the southern flanks of a small hillock. The MSL tools occur on the top reddish brown silt and UPL tools in the gravels of rain gullies.

16. Appannapalem : (17° 16' 45" N 82° 5' 15" E )

This village lies on the right bank of Elaru about 3.2 Km North West of Elasuaram by foot path. The prehistoric site is located half a kilometer west of the village at the eastern fringes of hills which overlook the Elaru river. The prehistoric site is a huge flat land composed of reddish brown sandy silt. UPL tools are collected from the gravels of gullies and MSL artifacts from the top sandy silt.

17. Elasuaram I: (17° 17' N 82° 6' 30" E )

It is situated 24 Km South of Addatigala down stream of Elaru on the left bank. Two terraces have been identified on the left bank at heights 16.8 m and 6 m. The stone age site is located half a kilometer away from the modern river bed on the highest terrace (T1). The other terrace (T2) is devoid of any artifacts. Terrace 1 was abutting a local
hillock and terrace 2 is laid against T₂. These terraces were subsequently eroded and exposed the following strata (Fig.5, No.5) from bottom upwards. Yellowish red sandy silt at the base to undetermined depths is overlain by bouldery pebbly gravel. The gravel is rich in kankar nodules and the matrix is sand. There is a good grading in the gravel and the upper finer part shows excellent cross bedding. The gravel bed is capped by reddish brown sandy silt.

The site is of interest in yielding both UPL and MSL assemblages in a considerable quantity. In addition a few slightly rolled Middle Palaeolithic tools are recovered associated with UPL tools. It is the important type site of the Eleru valley. The UPL tools associated with a few MPL tools have been recovered from the gravel horizon at a height of 12 m to 15 m from the modern river bed, wherever the gravels are exposed. MSL artifacts have been collected from the top reddish brown sandy silt.

18. Eleswaram 2

From the same height a little away from the Eleswaram 1 near the present river course an admixture of UPL and MSL tools have been recovered from loose fine gravel and sandy silt respectively. It is named as ELM₂.

1. Middle Palaeolithic
19. Rayavaram : (17° 18' 40" N 82° 6' 45" E )

It lies 3.2 Km north east of Elswaram on the road to Jaddangi. The stone age site is located at the foot of a hill, over a considerable stretch of area subjected to water erosion. UPL tools are recovered from the gravels in the gullies and the MSL tools from the top reddish brown sandy silt.

STONE AGE SITES ON DONIGODA, A TRIBUTARY OF ELERU

1. Aminabada (17° 19' N 82° 11' E )

This hamlet is situated inside the forest at a distance of 6.4 Km east of Jaddangi. The prehistoric site is located on the right bank of Donigadda towards up stream and half a Kilometer west of the hamlet. The section reveals a pebbly gravel at the bottom. The gravel is rich in kankar and laterite palletes. It is capped by reddish brown sandy silt. UPL tools are collected from the gravel bed where the top deposit was eroded away and MSL tools from the reddish brown sandy silt.

2. Jaddangi : ( 17° 19' N 82° 9' 45" E )

This village lies 9.6 Km south of Rajavommangi and 12.8 Km north of Bournagudem. The stone age site noticed earlier by Cammiade (1920) is MSL in nature. In the present explorations stray finds of both UPL and MSL tools have been collected from the loose gravel and the overlying red sandy silt respectively.
3. **Urlakulapadu** (17° 26' N 82° 9' E)

It is a small hillside village situated inside the forest about 3.2 Km north east of Bournagudem. The prehistoric site is located at the foot of a hill and close to the left bank of Urlaka Kalava which empties into Donigedda at Bournagudem. A few UPL tools are collected from the red sandy silt.

4. **Bournagudem**: (17° 25' 30" N 82° 8' E)

This village lies 12.8 Km south of Jaddangi on the road to Elesuaram, on the left bank of Donigadda. The prehistoric site is located half a kilometer North East of village in the forest. The section shows the basal mottled clay which is overlain by bouldery pebbly gravel. The gravel is rich in Kankar nodules and the matrix is sand. It is capped by reddish brown silt. The UPL and MSL tools have been found on surface where the top red silt is eroded away. In addition a single small broken perforated stone is recovered from the site.

5. **Peravaram**: (17° 25' N 82° 7' 15" E)

This place is situated 16 Km south of Jaddangi enroute Elesuaram. The stone age site is on the left bank of Donigadda. The cliff section shows weathered rock at the base overlain by Kankar rich yellowish red clayey silt. The latter is disconformably superimposed by brownish red sandy silt and gravel which in turn is capped by reddish brown silt. Both UPL and MSL tools occur as usual in
their respective horizons.

6. Lakkevaram: (17° 20' 40'' N 82° 4' 45'' E)

This village is situated 6.4 Km north of Elasuaram and 18 Km south west of Jaddangi. On the right bank of Donigadda, a little away from the stream and half a kilometer south east of the village, yellowish red sandy silt of older alluvium is exposed (4.2 m thick). Examinations in the gullies revealed a gravel deposit resting against the yellowish red sandy silt. The gravel deposit is cobbly pebble in nature, rich in laterite pebbles. The matrix is coarse sand. The entire deposit is capped by reddish brown sandy silt (2.1 m thick). Upper palaeolithic implements are collected from the gravels which got exposed due to erosion of top red silt. The MSL tools are collected from the top reddish brown sandy silt. In addition a single burnished grey ware shard of Neolithic period is picked up along with Microliths on the surface of top silt.

7. Pakalu: (17° 20' 30'' N 82° 5' 20'' E)

It is a newly formed hamlet lying 3.2 Km north of Ramanayyapeta and on the road from Jaddangi to Elasuaram. The stone age site is located on the left bank of Donigadda. UPL and MPL tools have been picked up from the kankary bouldery pebbly gravel laid in a sandy matrix wherever the top reddish brown silt was eroded away. It is one of the sites to give a meagre evidence of Middle Palaeolithic tools in the Elaru valley. MSL tools have been
collected from the top red silt as usual.

8. Ramanayyapeta : ( 17° 19' N 82° 6' E )

This village lies 4.8 Km north east of Eleusaram on the road to Jaddangi. The stone age site is located at the foot of a hill on the left bank of Donigadda. Cammies (1920) collected a few MSL tools here. But in the present explorations both UPL and MSL assemblages are found. The site is an extensive area of reddish brown sandy silt which is severely gullied by watery erosion. The stone artifacts which occurred in the gravels of the gullies are of both UPL and MSL in nature, whereas on the top of red silt the MSL is predominant. The gully sections as well as the stream section exposed the basal most bed of thick yellowish red sandy silt, cross bedded, which is overlain by fine gravel and coarse sands. The gravel bed is capped by reddish brown sandy silt.

SITES ON MADIERU; A TRIBUTARY OF ELERU

Surampalem: ( 17° 34' N 82° 14' E )

This village is situated north of Rajavumangal enroute Karakapudi. The prehistoric site is located to the east of the village on a small dried up local stream which joins the Madieru. Near by there are charnockite outcrops. The site was badly eroded and shows at the bottom yellowish red sandy silt overlain by cobbly pebbly gravel. It is rich in kankar nodules and the matrix is sand. This inturn
capped by reddish brown sandy silt. UPL implements alone recovered from the gravels of the gullies wherever the top red silt was eroded away.

2. Rajavommangi: (17° 32' N 82° 34' 45" E)

This hill town lies 9.6 Km north of Jaddangi. The prehistoric site is located on the right bank of a local stream that drains into Madieru. The section exposed on the left bank shows weathered rock, overlain by deep red clayey silt. The clayey bed is superimposed by loose fine gravels with coarse sands, lime concretions and lateritic pellets resting disconfirmably, which in turn is capped by reddish brown sandy silt. The silt is further cross bedded at the top. Both UPL along with a few MPL tools and MSL tools have been recovered from their respective horizons. Cammiade (1920) had earlier discovered some pygmy (MSL) tools in the area.

3. Labbarti: (17° 33' 40" N 82° 11' 45" E)

This is hill village situated about 6.4 Km southwest of Rajavommangi. The artifacts are collected on the right bank of Madieru from gravels resting on bed rock. At some places, gravel lenses are capped by reddish brown silt. An admixture of UPL and MSL tools and Neolithic celt and a few perforated stones are recovered from these gravels.

The cliff section noticed on the left bank shows the basal rock (2m) overlain by coarse gravel bed (0.5m)
which in turn overlain by yellowish red sandy silt (2m). Resting unconfirmably on this silty bed, is fine gravel associated with cross banded sands (1.20 m thick) which in turn capped by reddish brown silt (1m thick).

4. Vattigedda: (17° 20' 45" N 82° 11' E)

This is a newly formed hamlet in Ellavaram taluk, 4 Km north of Jaddangi. The site is located on the left bank of Madieru. A few Mesolithic artifacts are collected from the top reddish brown silt.

SITES ON MADDIGEDEDA : A TRIBUTARY OF ELERU

Nimmalapalem : (17° 31' N 81° 53' E)

It is the only site discovered on this stream, a village situated on the right side of the road from Addatigala to Rayapalle, about 4 km north of the former. The prehistoric site is located 2.4 km away from the Maddigeda stream on the right bank, on the southern flanks of a hill, and half a kilometer east of the present village proper. It is an extensive flat area under cultivation. Some exposed sections of the place reveal from bottom to top, red murrum at the base is overlain by red soil which in turn is overlain by greyish ashy bed of 22 cm thickness. The ashy bed is overlain by reddish brown silt of considerable thickness and further capped by a thick layer of yellowish red sandy silt. Pot sherds of Neolithic and Neolithic-chalcolithic (Late) have been picked up from the ashy layer and also in the slopes wherever the ashy
material is exposed on the surface. A meagre quantity of MSL tools have also been picked up along with pot sherds.

The Eleru river and its tributaries have well preserved alluvial deposits in the middle reaches. The composite section based on the observation made of the alluvial deposits at a number of sites is shown in Fig. 5, No.7. The lateral extent of the alluvium varies from 0.3 to 0.5 Km. The main components of the alluvium are gravel, sand, silt and clay. The lower portion of the exposed alluvium is usually coarse made up of gravelly deposits, while the upper portion consists of fine materials like sand and silt.
ELESUARAM

COMPOSITE SECTION SHOWING
PLEISTOCENE AND SUB-RECENT
RIVER FORMATIONS IN
ELERU BASIN

OLDER ALLUVIUM

YOUNGER ALLUVIUM

FIG.5