CHAPTER II

LOCATION
LOCATION

The district of Anantapur lies western most in the state of Andhra Pradesh between 13°41' and 15°14'N and 76°47' and 78°26'E. It is bounded on the north by the district of Bellary in Karnataka State and Kurnool district in Andhra Pradesh, on the east by Cuddapah and Chittoor districts both in Andhra Pradesh, on the South, Kolar and Lankur districts and on the west, Chitradurg and Bellary districts in Karnataka. It forms the part of the northern extremity of the Mysore plateau and steeps from south to north. Its elevation towards the south is about 2,200 feet while it gradually declines to about 1000 feet at Gooty in the north and 900 feet at Tadapatri in the north-east. The eastern side of the district towards Cuddapah is particularly hilly. The Erramalas or Errakondas flank its northern frontiers.

POPULATION

According to the census of 1991, the district is 19,130 square Kilometers with a population of 31,83,781. The district ranks seventh in the state. It comprises three Revenue Divisions, eleven taluks or sixty three Revenue Mandals (See Map-4).
PHYSIOGRAPHY

The district of Anantapur covered in the present study forms the part of the northern extremity of Mysore plateau and the principle characteristics of the physiography overall represents common phenomena that is aridity, treelessness and general poverty of the region. The place is covered with castellated granite hills devoid of trees with black cotton and red soils which proved strong defence for the early settlers in the region. The elevation of the region gradually falls into the Pennar valley in Booty and Tadapatri areas and further gradually rises. But the area of Madakasira and Hindupur commonly bounded with the neighbouring Karnataka state has an average elevation of 600 meters which forms the coolest part of the district.

From the point of view of Physiographic study, the entire Anantapur district can be divided into three divisions such as, (1) The northern division comprising the taluks of Uravakonda, Booty and Tadapatri, (2) The Central that of Anantapur, Dharmavaram, Kalyandurg and Rayadurg taluks and (3) The southern division comprises of Hindupur, Madakasira, Penukonda and Kadiri taluks.
Erramalas are binding the northern division and the eastern portions of Tadapatri taluk while the Muchhukota range of hills cover the western part. Besides these, there are also some isolated hills at Gooty, Uravakonda, Udripikonda of about 120 meters in height. The northern series of isolated hills flank at Palasamudram, Konakondla and Gulyapalyam. This division is extensively covered with black cotton soils.

The central division is almost arid treeless zone covered largely by the poor, stony red soil with isolated patches of black soil. The taluks of Kalyandurg and Rayadurg are seen with many isolated granite hills. The Muchhukota range of hills occupy much portion of Anantapur taluk, while Nagasamudram range breaks the flatness of the region. Another range which covers this division is that of Mallappa Konda and Penukonda line of hills in the Dharmavaram taluk.

The southern is the most hilly division with a better variety of red soil. The proportion of the reserved forests as well as vegetation is also high in this region. Penukonda taluk and the centre of Hindupur taluk are traversed by the Penukonda line of hills on one side. On
the other side Mallappakonda range flanks the eastern part of Hindupur taluk. There are also a few isolated hills in Kadiri taluk.

OROLOGY

The orographic features of the district represent the characteristic isolated peaks and rocky clusters. There are numerous hills found in the region. The average height of the hills of this region is 900 meters. Mallappakonda stands highest with 927.6 meters in Penukonda taluk. The another important hill in this region is the the Kundurpidurg with the height of 898.8 meters in Kalyandurg taluk. The clustering Devadulabetta, the short hills to the north of Malayavantham and the hills just north of Singanamala, some isolated hills in Kadiri taluk, the Nagasamudram hill and the Madakasira hills are the other orographic formations of this area.

ROCKS

Anantapur district consists of complex group of gneisses and schists of Archaeans, Cuddapah gray of rocks which are highly metamorphosed by igneous intrusions, the Kurnools, the Dharwars etc. The Cuddapah and the Kurnool systems occur in Tadapatri, Anantapur and Gooty area where as the Archaeans and the Dharwar systems are found in the entire region of Anantapur district (See Map-5).
The Archaeans which include both sedimentary and igneous formations belonging to Dharwarian age represent varied rock types like chlorite schists, biotite schists, hornblende schists, amphibolits, actionalite schists, hornblende granites, banded magnetite, quartzites etc., Granite and granitic gneiss are extensively found in the areas of Nasanakota, Tagarakunta, etc., The hornblende schists occur in Katrimala and Ramagiri areas. Quartz and mica schists occur at Papampalli. Ferruginous quartzite occurs on the hills of Kuderu and Talupuru villages. The hills of Banukota represent metadiorite. The two villages Jallipalli and Kotanka yielded dolorite. Palavoy in Kalyandurg taluk also represents dolorite and diorite.

Cuddapah group includes Pulivendula quartzites and Tadapatri shales, are found in the Tadapatri taluk and the eastern portions of Booty, Anantapur and Kadiri taluks of Anantapur district. These are divided into Papagni series and Cheyair series. These hills extended over long distances, invading the Vempalli dolomites and Tadapatri shales mostly an altered dolorite and basalt are responsible for the formations of successful mineral deposits as asbestos, barytes and steatite found in parts of Anantapur, Booty and Tadapatri taluks.
The Cuddapah system overlains unconformably the Kurnool group of rocks which include a set of quartzites, limestones and shales. The rocks belonging to the basal stage of this system consisting of the Banaganapalli quartzites and sandstones overlying the Cheyair and Papagni series of cuddapah system occur in the Jadapatri taluk. The Banaganapalli beds are overlain conformably by rocks of the Jammalamadugu series which is again divisible into lower Narji limestone member and upper Auk Shale. The dark-gray massive limestone weathering slightly bluish-gray is compact and dense, consistently high in calcium carbonate and low in magnesium carbonate well suited for the manufacture of cement.

MINERALS

The principal minerals occurring in this region include limestone, barytes, corundum, steatite, white shale, green quartz, dolomite, white clay, serpentine, calcite, iron ore, gold, diamond (See Map-6) etc. The following table provides details of the estimated reserves in the district.
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Mineral</th>
<th>Estimated reserves (in Million Tones)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Barytes</td>
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</tr>
<tr>
<td>2.</td>
<td>Limestone</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>Dolomites</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Steatite</td>
<td>1.6</td>
</tr>
<tr>
<td>5.</td>
<td>Iron ore</td>
<td>12.0</td>
</tr>
<tr>
<td>6.</td>
<td>Gold ore</td>
<td>0.7</td>
</tr>
<tr>
<td>7.</td>
<td>Corundum</td>
<td>1.7</td>
</tr>
<tr>
<td>8.</td>
<td>Green quartz</td>
<td>Under estimation</td>
</tr>
<tr>
<td>9.</td>
<td>Serpentine</td>
<td>-do-</td>
</tr>
<tr>
<td>10.</td>
<td>White shales</td>
<td>-do-</td>
</tr>
<tr>
<td>11.</td>
<td>Calcite</td>
<td>-do-</td>
</tr>
<tr>
<td>12.</td>
<td>White clay</td>
<td>-do-</td>
</tr>
</tbody>
</table>

Among all the minerals, iron ore is found more in the district. Iron ore is abundantly found in the taluks of Kalyandurg and Rayadurg where there are ash mounds also. Iron ore is found at Obulapuram, Siddapuram, Malapanagudi, Kambadur, Gollapalli, Mallipalli etc., in Rayadurg and Kalyandurg area and also Velupumadugu, Agali, Rolla etc., in Uravakonda and Madakasira areas respectively.

**FLORA AND FAUNA**

The flora of this region includes mango...
(Mangifera indica), tamarind (Tamarindus indica), banyan, margosa, cocoanut etc., Babul trees, the yellow-flowered 'Tangedu' shrubs (Cassia auriculata), Kanuga (Pongamia glabra), Kusum, (Carthamus Tinctorius), maddi (Terminalia alata), neredi (Calyptranthes caryophyllifolia) milk-hedge (Tortollis euphorbia), Pricklypear, aloes, etc are the other varieties that are found all over the region.

The animals found in this region can be divided into four classes, such as mammals, birds, fishes and reptiles.

Mammals belonging to orders carnivora, ruminantia, rodentia, pachydermata, primate and cheiroptera are found in this region.

The carnivores include panthers and cheetahs. Wild cats and toddy cats in this region. Wolves, Jackals and foxes are found all over the region. Black Indian bear is common in this region. Mongooses are common and form the pet animals of tribal people. Dog is another domesticated animal found everywhere.

The ruminants consist of antelopes usually seen in the red soils of this region. Ox, goat and sheep are the commonly domesticated animals.
The rodents include rats, mice, bandicoots, squirrels, hares etc., which are commonly found in this region. Horses and crested hogs of Pachydermata order and gray monkeys of primate order also found in this region.

The class-birds that found in this region include the great Indian Bustard and the eagle, the vulture, varieties of the hawk and falcon tribe, parakeets, king-fishers, jays, wood-peckers and the common sparrow, swallow and crow, pea and jungle fowl, partridge, rock-pigeon, quail, florikin, plover, snipe, stork and heron. The common wild duck, goose and pelican are found everywhere.

The commonly found fishes are eels. The cobra and the venomous whip-snake are abundant. Several green snakes supposed to be poisonous are also found on trees and shrubs. Frogs, lizards, toads, tortoises are very common.

SOIL

The different soils found in the district are, Black clay, black loam, black sand, red clay, red loam, and red sand. Black is superior in quality and best suited
for the crops of groundnut and cotton. Black loam, red clay, black sand occupy the next order in quality and red sand stands the last and inferior. But these soils are grouped into two important soils such as red and black cotton constituting 76% and 24% of the total area of the district respectively.

CLIMATE

Anantapur district is situated in the centre of the peninsula. So, it is naturally dry with extreme climatic diversities. "The climate is hot and dry in summer, hot and humid in rainy season and dry in winter, with the temperature varying from 16 °C in December-January to 44 °C in March-May. The district can be categorised as the driest part of Andhra Pradesh".

RAINFALL

Anantapur district suffers from scarcity of rainfall and often passes through droughts and famines. The rainfall is chiefly confined to the months of May to November but, is not equally distributed in the region. It increases from the north-west to south-east. "The normal rainfall of the region is 308 mm and 147 mm during south-west and north-east monsoon periods respectively."
RIVERS

The important rivers that flow through this region are the Pennar, the Chitravati, the Hagari, the Kushavati, the papagni, the Swarnamukhi the Kumudvathi and the Jayamangala (See Map-7). Among the streams the Pandameru, the Tadakaleru, the Maddileru etc., are seasonal. The following table indicates major rivers and their tributaries in the district.

<table>
<thead>
<tr>
<th>MAJOR RIVER</th>
<th>TRIBUTARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pennar</td>
<td>1. Chitravati</td>
</tr>
<tr>
<td></td>
<td>2. Jayamangala</td>
</tr>
<tr>
<td></td>
<td>3. Kumudvathi</td>
</tr>
<tr>
<td></td>
<td>4. Papagni</td>
</tr>
<tr>
<td>2. Chitravati</td>
<td>1. Kushavati</td>
</tr>
<tr>
<td></td>
<td>2. Gotluruvanka (Stream)</td>
</tr>
<tr>
<td></td>
<td>3. Maddileru</td>
</tr>
<tr>
<td>3. Hagari or Vedavati</td>
<td>1. Chinna Hagari</td>
</tr>
<tr>
<td></td>
<td>2. Swarnamukhi</td>
</tr>
</tbody>
</table>

Pennar

The Pennar which is also called Uttara Pinakini is the biggest river that flows in the region. The
Pennar rises in the Chennakesava hills (Chennaraya Betta) north west of Nandi durga in Kolar district of Karnataka state, descends in a north-westerly direction and enters Andhra Pradesh close to the village called Chowlur (Lat 13°41' N Long 77°29' E) to the south of Hindupur taluk in this region. The Kumudvati, its first tributary joins the Pennar at Hindupur town (Lat 13°49' N; Long 77°30' E) and Jayamangala, the another tributary of the same Pennar also joins the same at Utukur (Lat 13°55' N; Long 77°30' E) in the same Hindupur taluk. Near about Hindupur taluk the river Pennar turns north-east and glides to north-west near Basavanapalli and again flows north from about Chennamareddipalli and thus assumes a serpentine course. It continues its north-ward flow through Penukonda taluk, grazes the inter-state border that divides the Pavagada area of Karnataka state from Penukonda taluk, again touches the inter-state border at Reddivanipalli and enters Dharmavaram taluk. After passing through this taluk the river enters Kalyandurg taluk and there by touches Rayadurg taluk (Lat 14°45' N; 77°15' E) and turns east between the two villages of Udiripikonda and Pennahobilam both in Uravakonda taluk. Further it continues its east ward flow through Gooty taluk touches its northern most point 14°58') in all its course at Tadapatri and then contacts the neighbouring Cuddapah district. It further collects its tributary the
Papagni that flows through Kadiri taluk of Anantapur district near Adinimayapally in Cuddapah district, continues through the district of Nellore and finally flows into the Bay of Bengal. Thus the river flows about 333.35 Kms. long in this region. During rains though its banks overflow, it remains dry for three fourths of the year.

Chitravati

The another important river in the district is the Chitravati which rises in Harihareswara hills, north of Nandi durga in Kolar district and enters Andhra Pradesh at a village called Kodikonda (Lat 13° 50' N; 77° 46' E) in Hindupur taluk of Anantapur district. Chitravati collects its first significant tributary, the Kushavati at (Lat 13° 53' N; 77° 46' E) and penetrates through the hilly uplands of Penukonda taluk over a particularly stony bed. Further it flows through Dharmavaram taluk and broadens out considerably after collecting a stream called Gotluru vanka at (Lat 14° 27' N; Long 77° 44' E), runs east at Tippepalli and traverses a little distance before moving north-east near Dampetla, continues north-easterly direction and collect another stream namely Maddileru. It further breaks into the picturesque Parnapalli valley between the Muchhukota and the Palakonda hills, contacts for the first time Cuddapah district and once again enters Anantapur.
district between Dharmavaram and Tadapatri taluks. In it's continuous flow of north-easterly direction, it touches Jammalamadugu taluk of Cuddapah district, reaches rocky uplands near Peddapalli and finally joins the Pennar near the Bandikota gorge in Jammalamadugu taluk of Cuddapah district having flown about 212.5 Kms. long in this region.

Hagari or Vedavati

The Hagari, also called the Vedavati is called by that name due to the union of the two rivers namely, the Veda and the Avati. It rises in the Karnataka state enters Andhra Pradesh at the southern end of Rayadurg taluk of Anantapur district. It is joined by it's tributary namely the Chinna Hagari between the two villages of Benakanapalli and Siganapalli in Rayadurg taluk, flows through the two taluks of both Rayadurg and Kalyanadurg, contacts the Karnataka, again flows through the two taluks of Alur and Adoni in Kurnool district of Andhra Pradesh and again enters the Karnataka state. The Hagari drains the western part of the district.

Papagni

The Papagni that rises in the Nandi hills of Siddalagatta taluk of Kolar district in Karnataka, flows
through Kadiri taluk only. The Papagni further joins the Pennar river at Adinimayanapalli in Cuddapah district.

Swarnamukhi

It rises in the Karnataka state, enters Andhra Pradesh at a village called Madhudi in Madakasira taluk of Anantapur district, flows Madakasira taluk and re-enters the Karnataka state where it joins the Hagari river.

Kushavati

The Kushavati rises in the Karnataka state, flows past Chilamattur in Hindupur taluk and joins the Chitravati in the same taluk.

Apart from these rivers, the two significant hill streams, the Tadakaleru and the Pandameru rise in the southern most recesses of the Nagasamudram hills of Dharmavaram taluk in this district, both of which flow through Dharmavaram and Anantapur taluks and finally run over the waste weir into the Singanamala valley. All of the rivers that flow through this region are not ever flowing ones but seasonal. They overflow during the rainy season and normally remain dry in the rest of the seasons. As Karnataka state forms the basis for their origin and when
ever they over flow in Karnataka, the flood waters make the rivers and streams of this region full and also over-flow. The floods, however, last only for a few days.

PREHISTORIC AND PROTOHISTORIC BACKGROUND

The district offers some vivid glimpses of the prehistoric past. The surface finds discovered and assigned to special stages in the progress of civilization testify to the existence of man even in the remote past. Bruce Foote surveyed the northern part of this district towards the end of the nineteenth century.

"The palaeolithic age, in which man fashioned his tools and weapons by chipping hard stones of convenient size and shape, is represented by the only palaeolith, recovered from the Vidupanakallu, west hill in the district by Robert Bruce Foote." It is made of quartzite and is of squarish oval shape.

The succeeding mesolithic features were brought to light at Anantapur, Bhogasamudram, Dorigallu Muchukota, Tadapatri, Udiripikonda etc.

Bruce Foote also collected several neolithic artifacts. About twenty three localities in the district
yielded very interesting objects. Eight of them are highly important, nine are of moderate importance and the rest comparatively insignificant. The important sites include the Lattavaram hill, Budihal or Budikonda, Vidupanakallu fort or east hill and west hill, Velupumadugu, Tadapatri, the Havaligi hill and Kalamadevuru hill. To the moderately important category belong Vajrakur, Uravakonda, Karkamukkala, the Guntakal railway junction, Bhogasamudram, the hill north of Havaligi hill, Muchukota, the Jambuladinna hill and Yerragudi hill. The last mentioned site is now in the jurisdiction of Kurnool district.

The neoliths gathered by him covered a large number of used and broken implements, about a dozen corn-crushers of pistacite rock from Lattavaram hill. Budikonda is also a fine castellated hill with many capital rock shelters, yielding a small pestle made of diorite, a rare large oval mealing stone of chrome-mica gneiss and a fragment of a gray earthenware. Bruce Foote also found a long shallow stone trough between two good rock seats and a very remarkable oblong terrace with flat bare rocky floor where people carried on their mealing work. On the east and west hills of Vidupanakallu he collected a large number of celts, chisels, flakes, strike-a-lights, scrapers and cores made mostly of chert, agate, chalcedony and quartzite. The
agates must have been obtained from a considerable distance probably from the valley of the Tungabhadra. Also from the Velupumadugu hill, Foote collected quite a number of celts, scrapers, flakes knives and cores. At the site east of Tadapatri he picked up many pot sherds of highly decorated and good quality, presumably belonging to the well-to-do classes. The most interesting finds on the Havaligi hill belong to the fine series of artifacts of chert and agate. The site at the Kalamadevur hill revealed the existence of a flake factory. The finds at the place include numerous broken celts, corn-crushers, pounders and potsherds of excellent quality.

An outcrop of black-trap rock runs near Demaketepalli along the crest of a hill. The boulders of the rock show signs of having been struck with stone hammers for producing flakes required for working into finished celts. Hundreds of flakes and unfinished stone implements lie scattered at the base of the boulders. This site must have been used as a factory for manufacturing celts.

At the moderately important sites, celts, flakes, chisels, hammers, corn-crushers, mealing stones, cores, potsherds and linchets were commonly met with. The only wooden prehistoric object of the neolithic times which
survived till to-day was a small comb which was discovered at the Guntakal railway junction by Cornelius Cardew, a friend of Foote. Many of Cardew's finds are now preserved in the Madras museum. Apart from these Rami Reddy, who explored the south western port of Andhra Pradesh also picked up, pecked and ground stone tools, flakes and blades from Akkammakonda, Andepalli, Budagavi, Chinnadandukonda, Donekal, Gadekal, Gulyapalyam, Hulikal, Idukal, Kalyandurg Kundurpi, Mallappakonda, Mudigal, Palavoy, Peddadandukonda, Pillalapalli, Rayadurg, Vitlampalli, Yatkal etc. He also discovered a few ash mounds at Andepalli, Hulikal, Mallapuram, Mudigal, Palavoy, Ventareddipalli, Kolimipalyam etc.

The only site which revealed so far the chalcolithic features in the district is Hulikal excavated by V.V.Krishna Sastry. The copper objects such as small copper wire, a curved blade of a thin section, probably used as a razor and a miniature axe with hour glass section in the middle, are the predominant.

The remnants of the post neolithic period are exhibited by an iron age settlement which succeeded the neolithic ones evidenced by the shape of iron slag strewn all over the surface were brought to light at Kalamadevur.
Cornelius Cardew made some excavations and found an iron and bronze age site near the Buntakal railway station from which valuable series of earthenware and iron articles were obtained. Further Rami Reddy also located two iron smelting sites one at Kolimipalyam and the other at Mudigal. He excavated the ash mounds at Palavoy and brought to light the cultural sequences right from mesolithic times to early historic including, neolithic and post neolithic deposits.
NOTES AND REFERENCES


7. Ibid., p.3.

8. Ibid., p.3.

9. Ibid., p.3.


14. Ibid.,


