Map Showing Excavated Sites of Orissa.
A. Review of Archaeological Works in Orissa

The state of Orissa resembling the shape of a Palaeolithic handaxe is situated in the eastern coast of India lying between 19°28' : 22°4'N latitude and 82°32' : 87°31E longitude. It is bounded by the states of West Bengal on the North-east, Bihar on the north, Madhya Pradesh on the south and the Bay of Bengal on the east. Geographically, it is a part of the Gondwana landmass and morphologically it is divided into five parts: (I) the coastal plains, (II) the middle mountainous region, (III) the rolling uplands, (IV) the river valleys and (V) the subdued plateau (Sinha 1971).

The elevated Chottanagpur plateau (O’ Malley 1919 : 24) extending from the Gangetic valley on the north-east into the inner highlands of Orissa through the Santal praganas shapes the geography of Orissa. It is a thickly forested area cut up by numerous hill ranges enclosing small river valleys - a wild area that has always presented difficulties from the point of view of communication between North and South India. Spate (Spate 1954 : 585) rightly remarked “Geographically speaking it is terra incognita, rocky, jungle, isolated, backward and almost empty”.
Orissa is part of the peninsular shield, one of the oldest and most arable landmasses in the world. By and large it is underlain by Pre-Cambrian rocks. About 25% of Orissa is constituted of the phenomozoic rocks, Quaternary formations and the recent to sub-recent alluvium. The Pre-Cambrian rocks are represented by peltic, psammitic, pasamopeltic with subordinate psephitic and calcareous rocks, metamorphosed in several grades. They are structurally deformed to different intensities and transformed to different degrees. These sediments and metasediments occur as dissected patches (Sinha 1971: 8).

Broadly, the soil of Orissa may be classified as transported and residual soil on the basis of its mode of formation. The transported soil is an admixture of the eroded materials and is heterogeneous in character. The residual soils are mainly worn out by different agents of erosion and they preserve the character of the bedrocks.

Orissa enjoys a tropical climate. The South-West monsoons and the retreating North-East monsoons effectively control its climate. As the state is located in the direct path of the South-West monsoon the result is that monsoon rain is much lower here than in West Bengal. On account of the North-East-South-West alignment, the Eastern Ghats fail to act like a barrier to the moisture-laden monsoon winds from the Bay
of Bengal. During late monsoons, however, cyclones from the Bay of Bengal move North-West along the Brahmani-Burhabalang interfluve. They bring in heavy rain to the upper reaches of the drainage channels in the district of Mayurbhanj, Sundargarh and Sambalpur.

An attempt is made in this chapter to review the archaeological works conducted so far in Orissa from the Pre-historic times upto the advent of the Guptas which ushered in the writing of the recorded history of Orissa.

V. Ball (Ball 1876 : 122) was the first archaeologist who, in 1876, reported four Palaeolithic artefacts from Angul, Talcher, Dhenkanal and Bursapalli (Ball 1876 : 122-23; 1880 : 507). However, this discovery of Ball did not arouse the desired impetus for further archaeological investigations in the following years. It was only in 1930's that a preliminary survey was conducted by Worman and Achrya (Achrya 1923-24 : 100-01) which resulted in the discovery of the Palaeolithic site of Kuliana that was subsequently excavated by Nirmal K. Bose and Dharani Sen in 1940 (Bose & Sen 1948; Sen et al. 1956: 253-46; Bose et al. 1958 : 49-55). The excavators summed up that the industry of Kuliana was mainly a core industry. Hand axes and cleavers predominate and flake tools are limited in number. Mohapatra’s (Mohapatra 1959 : 35; 1962, 1970, 1990) work in the 50’s, however,

Mesolithic Culture

The succeeding Mesolithic culture is generally regarded as a transition phase between Palaeolithic and Neolithic. This transition has been well felt in Orissa as reported by discovery of several Mesolithic sites extending over the entire state unlike the Palaeolithic sites restricted mostly to the western uplands. No Palaeolithic sites so far, has been reported from the coastal plains of Orissa. In the coastal Orissa the earliest archaeological deposit is marked by the microliths of the Mesolithic period.
Ota (Ota 1982-83; 1986) conducted field survey of Phulbani district and found both geometric and non-geometric microliths from 30 open air sites with quartz as the main raw material. Ota excavated two trial pits at Khomananta near Kalarjhuli in the erstwhile Phulbani district (IAR 1982-83 : 64-5). Khomananta is situated on an oval-shaped, flat ridged, lying 10m. high. The deposit was 1.35m. thick and consisted of red soil resting on laterite. The principal excavated raw materials were chert, chalcedony and quartzite. The assemblage consisted of simple artefacts. Retouched tools were small in number which included triangles, backed blades, retouched blades and crescent. Heavy duty tools were found along with the assemblage comprising unifacial pebble tools, large flakes, ring stones, anvils and hammer stones. The excavator opines that the Mesolithic occupation at the site was a prolonged one and even the heavy tools formed a part of the Mesolithic industry.

Nanda (Nanda 1982-83; 1984) reported 85 microlithic sites in the Indravati Basin. Backed blades, fluted core and scrapers are the predominant varieties, with chert as the principal raw material. Mohanty (Mohanty 1985; 1989; 1992; 1993) reported the discovery of 58 Mesolithic sites, most of them are associated with granite outcrops, with only a few being found in the foot hill regions close to the streams. The raw materials recovered from Keonjhar district are backed blades,
obliquely truncated blades, retouched blades, knives, triangles, trapezes, crescents, scrapers and cores as main tool types. It also establishes the use of chert as the primary raw material. Mesolithic artefacts are also reported from Jira basin (Mishra 1982-83) and Ib valley (Trpathy 1982-83).

A typical aspect of Orissan Mesolithic is the association of horsehoof cores or scrapers, choppers and pointed tools with microliths (Mohanty 1989; Ota 1986) which is further attested by the association of heavy implements with microliths found from Dubri-Jamaka region in Jajpur district during a survey by Pradeep Mohanty and Kishore K. Basa (Basa 1997).

The Post-Graduate Department of History, Sambalpur University has conducted a trial excavation at Lekhamoda painted rock-shelter under the supervision of Pradhan during February 1994. The excavation yielded mostly wheel turned potteries in association with a few specimen of hand-made potteries, fluted cores, points, chips and blades. The ceramic assemblage comprised cord and mat impressed Grey Ware, Buff Ware, Red Ware, Red slipped ware and black burnished ware. Decorations in the form of concentric grooves, circular lines on the surface of the pot are also found. Shapes recovered from the
excavation are bowls, _bandi_, vase and miniature pots. A few specimen of incised potteries have also been reported.

**Neolithic Cultures**

Neolithic culture is associated with grinding and polishing techniques evidence of pottery and domestication of plants and animals. The following discussion is about the excavated Neolithic sites of Orissa.

**Kuchai**

The site of Kuchai (22°04N 86.36E) was excavated by the Archaeological Survey of India (IAR 1961-62 : 35-36; Thapar 1976 : 1-2) which yielded neolithic artefacts in association with a coarse grit tempered red ware and red slipped ware with incised fingertip decorations. The excavated neolithic artefacts were all of butt end variety. Stratigraphically the neolithic cultural horizon at Kuchai rests atop of a microlithic level. The potteries recovered from the site were coarse fabric. The potteries of Kuchai are divided into two categories: (a) medium to thick variety fabric constituting 70% to 80% of the ceramic assemblage while (b) medium to thin constitutes the minority. The shapes are mainly bowls, vases and storage jars.
Baidyapur

Baidyapur (21.04°N 86.36°E) on the south bank of the river Burhabalang in Mayurbhanj district excavated by B.K. Thapar (Thapar 1976 : 1; Banerjee 1930 : 39-40) yielded the evidence of potteries in association with Neolithic artefacts. According to Banerjee the vessels were handmade with a coarse fabric. However one fragment was thin with a fine red slip, carinated mouth and was possibly a cooking vessel. Another important aspect of this was the evidence relating to rice (Thapar 1976 : 2). It was evident from husks found during the excavation.

Kuanr

The site of Kuanr (21°.45 N : 86.43E) in Keonjhar district was reported by Ranjana Ray (Ray 1993 : 97-101). Artefacts were collected both from surface and trial trenches dug upto 30 cm. There was a large quantity of stone tools, potsherds, terracotta pieces, beads and metal ornaments. The stone tools included adzes, ringstone, chisel, side-scraper, blade, waste flake, etc. Petrological study revealed that the stone tools were all made in altered basalt. Potsherds are too fragmentary, handmade, red in colour, grit tempered, coarse texture and are not well fired. Nine bangles and two rings constitute the metal objects.
According to Ray the overall culture of the site may be considered as Chalcolithic because of the association of the neolithic type of celt, mortal pestle and stone tools with metal objects. However, the materials found at Kuanr, Ray maintains, are different from those of Sankerjang (Ray 1993:100).

Golabai

The site of Golabai (20°01"N and 83.33"E) located on the bank of the river Mandakini in Khurda district was excavated by Archaeological Survey of India during December 1991 - April 1992 (Sinha 1993 : 48-50). Seven trenches were taken and the excavations revealed an occupational deposit of about 8m. On the basis of material recovery, the excavator has divided the sequence into three cultural phases, Period I - Neolithic, Period II - Chalcolithic and Period III - Early Iron Age.

The Neolithic phase of Golabai is associated with bone tools. A few pieces of bone with working marks were found along with some mineralised bones and antlers. Potteries are both wheelmade and handmade with a ratio of about 83:17. The pottery assemblage of this period includes a variety of wares like Buff ware, Dull red ware, Dull grey ware, Red slipped ware and chocolate slipped ware. The shapes are vases, dishes, carinated bandi, bowl, lids and lamp stand/ pot stand. A
few specimen of decorated and post-firing ochre painted potteries are reported from this period. The potteries impressed with chord and tortoise shell are also found.

Period II of Golabai is Chalcolithic as evident from the material deposit. The antiquities are bone, stone, microliths, terracotta, copper and faience. The bone tool consist of points, arrow-heads, spears, borers, awls, burins, scrapers, engravers, harpoons, burnishers, pendants, beads, harverster, chisel, piercers and long spears. The stone tools are represented by adzes, celts, tool sharpener, pestle and quern. The microliths include trapaze, points, scrapper, borer and lunate. The terracotta antiquities are spindle whorl, human figurine, sling balls and crucibles. The faience antiquities are represented by micro beads and the copper antiquities are represented by chisel. The pottery of this period shows a marked difference from that of the preceding period and most of them are of deluxe variety. The wares are (a) burnished red slipped ware, (b) burnished black-and-red ware, (c) burnished chocolate slipped ware, (d) burnished black and chocolate ware, (e) dull red ware, (f) blackish grey ware, (g) buff ware and (h) black slipped ware. The shapes are Katora (a bowl with a featureless rim, flaring sides, mild carination at the waist and with a ring base) vases, bowls, basins, pots with a ring base, pots with pedastal base, narrow neck surabis, stop cork
type lids, pot stands, ring stands, storage jars, *bandis*, convex sided bowls, spheroid bowls etc. (Sinha 1997).

The chief characteristic feature of Period III of Golabai is the use of iron by one iron celt and three pieces of iron. The artefacts recovered from this period are bone tools, terracottas, stones and copper objects. The bone tools are represented by point, burin, scraper, blade, arrowheads, piercer, spear, digging tool, awl, pendants and single row harpoon. The stone antiquities consist of celts, pastle and chisel while the terracottas are represented by pendants sling balls, spindle whorl and crucibles, the copper objects are represented by earrings and a copper bangle found on the left arm of a female skeleton.

Potteries of the period show a trend of continuation of degenerated potteries of the later phases of Period II, wherein the burnished potteries of the earlier period were totally absent. The slipped wares are few. Some new shapes like the tumbler with flaring sides and ring base and tumbler with straight sides make their appearance. The Katora is present but very few in number. The pots are fired under reducing condition of the kiln as noticed from the ill firing patches.
Sankerjang

Sankerjang (20°52'08"N; 84°59' 19"E) is situated 300m. south-east of the Jamnia and north of a usually dry stream called the Pandiani which is a tributary of Brahmani in the district of Angul. The site was excavated by the State Archaeology of Orissa (Ray 1977 : 539; Dash 1989 : 22-25; Yule 210-12; Yule et al. 1989 : 539-41). The main group of mounds extends over an area of about 500x500m and is crossed by a track which also crosses Pandiani. The excavation showed three habitational strata atop the virgin soil. The uppermost was composed of detrital deflated gravel, followed below by another culturally sterile layer consisting of small quartzite chips and clay. The find layer consisted of a reddish clayey soil. The importance of Sankerjang lies not only in its material recovery of knapped and ground stone axes and adzes, copper bangles, human skeletal remains and teeth, but also for the first radio carbon dating in Orissan archaeology. The date is 2590±60 B.P. (KN 3755) (Cal 795 B.C.). The site, however, is bereft of potteries.

Khambeswaripalli

Khambeswaripalli (20°46"N and 83°50"E) situated at a distance of 4 kms. from the Tahsil headquarters of Birmaharajpur in Suvarnapur district was excavated by the Post-Graduate Department of History, Sambalpur University (Pradhan & Behera 1998 : 1-12).
Oriented South-East-North-West along the left bank of the river Mahanadi, the mound partly eroded by the river and partly covered by the present Khambeswaripalli village, measured approximately about 130m. in length and 50m. in width and 7m in height above the present bed of the river Mahanadi. The trial excavations conducted at three places over an area of 23 square metres yielded three periods i.e., Period-I, Period II & Period-III. Period I is further divisible into IA & IB is represented by the Chalcolithic phase. The ceramic assemblage of this period include fine and lustrous specimens of plain as well as white painted black-and-red wares, plain and white painted red slipped wares, plain red wares and cord impressed wares. The other antiquities of this period are discs with or without a central hole, bone points, terracotta spindle whorle of arecanut type and a couple of crudely made stone beads. The excavation did not yield any copper objects or implements.

Period II is represented by an altogether different deposit of black-cotton soil, which, however, yielded fragments of copper along with a few bone points and carnelian beads. The ceramic assemblage showed a degeneration.

Period III composed of a brownish to greyish sandy soil is a disturbed deposit yielding pottery types of the earlier periods along with iron objects, glass bangles and cowrishells.
Sisupalgarh

Sisupalgarh (20°13'30"N and 85°51'30"E) is located at a distance of about 2\(\frac{1}{2}\) km. south-east of the capital city of Bhubaneswar in the district of Khurda. The ruins of Sisupalgarh is circumscribed by the waters of a streamlet called the Gangua or Gandhavati. The site was excavated in 1948 by the Archaeological Survey of India (Lal 1949: 62-105) and the excavator on the basis of potteries has divided the occupational deposit into three periods i.e. Period I, Period-II & III extending over a time span of 700 years from C.350 B.C. to 350 A.D.

Period I represents the beginning of settlement in Sisupalgarh, which through a process of evolution, matured in the following Period II. The potteries in Period I were essentially plain, devoid of any decorations whatsoever. The potteries were mostly wheel turned and varied in colour from dull grey to terracotta red. The predominant ware is generally dull grey or red in colour, polished in a few instances. Stray fragments of polished black ware also occur in this period but become more prominent in the early levels of Period II. The occurrence of black or grey sherds with or without concentric grooves on the inner base around a central knob is the characteristic feature of Sisupalgarh ceramic. Black-and-red ware is absent in this period and also there is no defence work in Period I.
In Period II the pottery got sophisticated and certain evolved types made their appearance as the industry advanced. The period noticed predominance of bright red polished ware which was well fired and nicely finished. Besides, the incised and applique decorative patterns were also noticed. The black-and-red ware of megalithic fabric appeared at the beginning of this period. In the same period specimen of rouletted ware was also found. From the various strata various antiquities like ear-ornaments, iron implements of peace and war and beads of agate, carnelian, quartz etc. were obtained. A pottery ring well of 1 1/2 ft. in diameter surmounted by a stone slab was found buried under the structures of Period III. Another important discovery of the period was Northern Black Polished Ware.

The most significant event of Period II was the construction of the defences. It is the earliest reference of an early historical fort in ancient India. The defences consisted of a massive clay rampart over 25 ft. high at this point and 110 feet wide at the base. Later two brick walls were built at the top of the laterite gravel and the space between them was filled up with mud and earth. The fort had eight gateways, two on each side. In the centre of the fort monolithic pillars in a group of sixteen were erected.
In Period III the bright red polished ware of the preceding levels practically changed to one with red or yellowish red ochre wash. This change in the outer appearance of the ware coincided with a change in the layout of the structure. Majority of the pottery types and decorative patterns, both incised and applique, remain unchanged. Because of this reason the excavator argued that this period was marked by a transition in fabric and general appearance of pottery and not a change of culture. The period was also associated with unearthing of two adjoining houses built of laterite blocks and lying north and south.

Manamunda

The archaeological site of Manamunda (20°51"N and 83°59"E) locally known as Asurgarh, is situated on the right bank of the river Mahanadi at the confluence where river Tel meets with Mahanadi in the district of Baudh. The site extends over an area of about 1.5 km. x 0.5 km. between the right bank of the river Mahanadi and the state Highway No.14 (Mishra and Pradhan 1990: 1-14).

The site was excavated in 1981 (Behera 1982: 21), 1983 and 1990 (Indian Archaeology A Review 1989-90: 80-86). The first two excavations were conducted without reaching the natural soil. The excavation of 1990 yielded two periods and on the basis of pottery and other important antiquities the excavators have identified two periods
extending over a time span of 600 years; 4th-3rd century B.C. to the 3rd century A.D.

Period I of Manamunda had two phases i.e. Period IA and Period IB identified on the basis of pottery though it did not show any change in both the phases. Antiquities like microliths, copper objects from the lower level and the punch-marked coin along with the pebble-paved floor level from the upper level have, led the excavators to make such sub-division of Period I. The beginning of Period I may be tentatively assigned to 4th-3rd century B.C. because it is stratigraphically lying below the punch-marked coin with an occupational deposit of one meter in between, as the excavators proposed. The potteries are black-and-red ware, black slipped ware and red slipped ware including incised and applique design on the pots. The megaliths characterised by the stone-circles are assigned to this period, because the ceramic industry of this period go hand in hand with the ceramic assemblage of the stone-circles.

Period II at the Manamunda has been identified on the basis of potteries. The ceramic industry of the earlier period has been completely replaced. Black-and-red ware and black polished ware ceased to exist and the bright red polished ware of the earlier period had degenerated in fabric and technique. B.B. Lal has also identified such a
degenerated red ware stage at Sisupalgarh and assigned a period 2\textsuperscript{nd} century A.D. to 3\textsuperscript{rd} century A.D.

Asurgarh

Asurgarh fort is located at a distance of about 4.5 km. to the west of Narla Railway station and about 1 km. to the north-east of Rupra Road Railway station on the Raipur-Vizag Railway line in Kalahandi district (Sahu 1982: 1-8).

The excavation at Asurgarh conducted by the P.G. Department of History, Sambalpur University yielded two periods, viz. Period I and Period II. Period I is associated with black-and-red potsherds in fine texture. The polished potteries are more in number. Black and red polished potteries of fine texture and fabric are found in this period. The period also yielded the evidence of a brick structure and iron objects like hooks, door hinges, arrow heads and axes. Beads of precious stones like chalcedony, agate, carnelian, crystal and coral were recovered in large numbers. The most important find was a cluster of fifty punch-marked coins, both silver and bronze, dating to the pre-Mauryan, Mauryan and post-Mauryan periods.

Period II yielded antiquities datable to the period from 1st century A.D. to 4\textsuperscript{th} century A.D. The period is associated with different
types of decorated potteries, the most common being dull grey to greyish black in colour. Finished and half finished semi precious stone beads and intersecting moulds indicated that it was a bead and ornament manufacturing unit assigned to 3rd-4th century A.D. The potteries are black polished potteries of medium fabric with concentric circles as well as high necked and high shouldered pinkish wares with short handles. Degenerated potteries are also recovered.

Jaugarh

The archaeological site of Jaugarh situated on the bank of the Rishikulya river in Ganjam district is known for a set of fourteen rock edicts of the emperor Asoka. The site was excavated by the Archaeological Survey of India (IAR 1956-57 : 30-31). According to the excavator the recovery of celts from the surface and one such from the excavation, seemingly associated with a black-and-red ware, implied the vague representation of a neolithic culture. The excavator has divided the occupation into two periods.

Period I was characterized by a full-fledged iron using culture. The potteries were essentially plain, devoid of paintings and were utilitarian in character. The wares were; (a) dull red ware, (b) black-and-red wares and (c) red polished ware. The knobbed vessels were also found from this period. Beads of shell, bone, carnelian, agate, crystal
and quartz etc. were found. That bead were made locally is evidenced
from the unfinished beads from the site.

In Period II, red ware was the main ceramic industry. The
decoration consisted of incised and applique patterns. The knobbed
vessel in its fabric and form degenerated. The other antiquities
recovered were brick and stone structures, beads mostly of semi-
precious stones, shell, terracotta, copper and iron objects. The
discovery of as many as eleven Puri-Kushana coins and a punch-mark
coin at an early level of Period II not only suggest the prosperity of the
site and locality but also the upper limit of the period.

The excavator, taking into account the positioning of the rock
edicts of 3rd century B.C. and the excavated evidence of Neoliths in
association with the antiquities and potteries of Period I has suggested a
Pre-Christian origin of the urban centre at Jaugarh.

Lalitgiri

Lalitgiri (20°35”N : 86°15”E) situated in between the hills of
Paraphadi, Landa and Sukhuapada of Cuttack has been excavated by
A series of excavations were conducted from 1985-86 to 1989-90 at Lalitgiri. The excavations yielded the evidence of a Buddhist establishment (2nd to 3rd century AD). The important findings were three relic caskets in the form of votive stupas with detachable upper parts, stupas of various dimensions and forms, apsidal structure, iron sickles, a spear head, faience bangles, terracotta animal figurines, and terracotta clay sealings. The potteries recovered adjacent the Buddhist establishment were grey and red ware of medium to fine fabric, red ware both slipped and washed dull red ware, black ware and black slipped ware. The black slipped wares were thin in section. Moulded potsherds were also found. The shapes were vases, bowls, dishes and bandis. Miniature pots with perforations were also noticed. Knobbed wares and inscribed potsherds were also found.

The excavator has assigned Period I and Period II a time span from 1st century B.C. to 4th century A.D.