■ NIGERIA

Apa: A Later Stone Age occupation layer in the Southwestern Coast of Nigeria

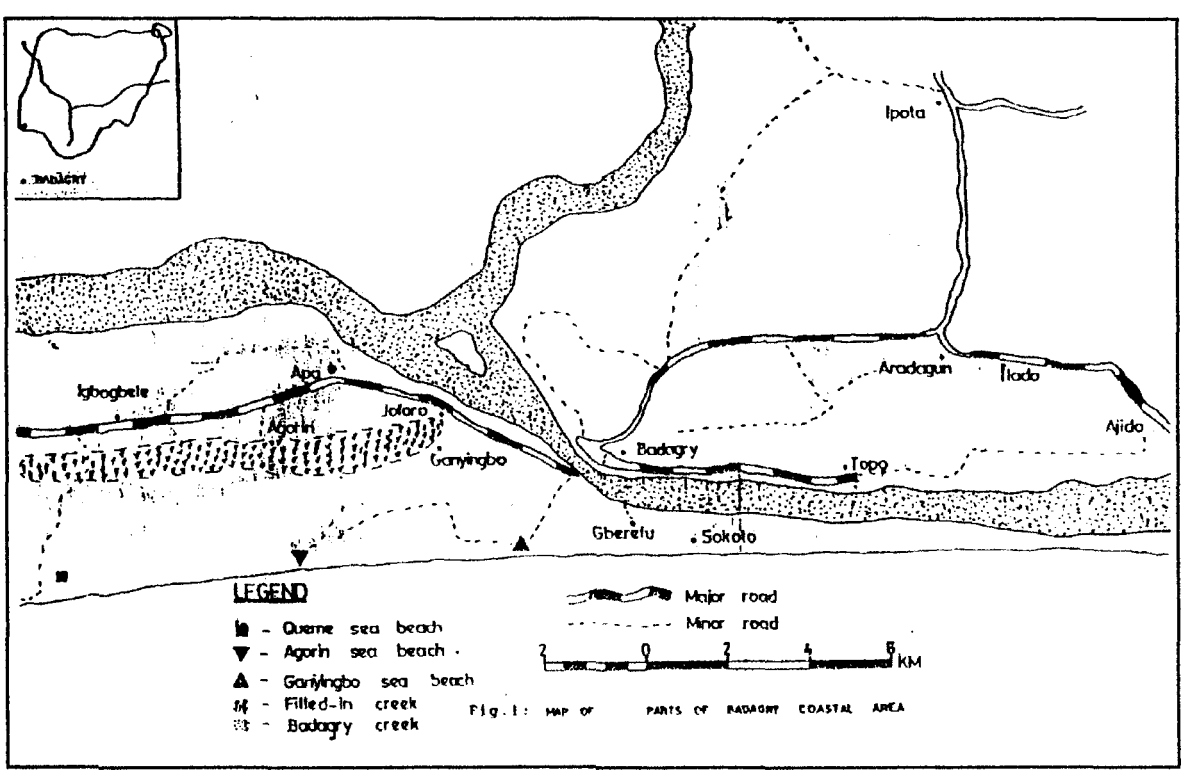
Raphael A. Alabi
Department of Archaeology and Anthropology
University of Ibadan
Ibadan, Nigeria.

Introduction

Apa is located on the inner barrier beach in coastal southwestern Nigeria (Figure 1), some five kilometers from Badagry. It is found within the humid tropical climate and swamp/rain forest belt. The climate of the area is dependent on the northward and southward movement of the Inter-Tropical Discontinuity (ITD). There are two distinct seasons, wet and dry, which occur between March and October, and October to March, respectively. Temperature is high throughout the year, averaging about 30°C (Usoro 1977). Relative humidity is also very high, ranging from 80 to 100 % except in the dry season when it falls to 70% in the afternoons. The average annual rainfall is 1830 mm and there is hardly any month when it does not rain (Usoro 1977). The soil is made up predominantly of sand. Much of the vegetation of the area has been modified by humans, so that the original primary vegetation has almost completely disappeared. Some of the plant species around the site, as identified by Sowunmi (1997: personal communication), include: *Alchornea cordifolia, Anthocleista* sp., *Albizia adianthifolia, Cola millenii, Newbouldia laevis, Elaeis guineensis*, and *Ipomoea involucrata. Cyperus papyrus* and *Raphia vinifera* are also common plants.

Archaeological work was carried out in the area in April 1994. This involved reconnaissance and excavation. The aim was to see if information about the environment and subsistence of the early inhabitants could be obtained. Two sites, designated Apl and Ap2, were studied. The brief report presented here concerns mainly the Apl site. A more detailed report on the two sites is being presented elsewhere.

Figure 1: Map of parts of Badagry Coastal Area.



The first Apa site (Ap1): Reconnaissance and Excavation

This site was discovered while we were reconnoitering the area. Some section of the soil had been exposed by tipper lorry sand loaders during the process of sand dredging, and, thinking that we could obtain some environmental clues from the exposed layers, we inspected it. Upon closer examination, we discovered a layer of potsherds and charcoal at a depth of 1.50 m from the surface. This layer, sandwiched between three other distinct layers, was traceable for about 15 m from the eastern wall to the northern and northwestern portions of the exposure. It was not traceable to the western and southern portions which were unexposed. We concluded that it was an occupation layer, and decided to sink a test-pit there. The excavation was more or less a rescue type, for, fearing that the tipper lorry sand loaders could continue their work anytime, we carried out our work very swiftly. A 3 m by 1 m trench was laid out adjacent to the exposed soil section, with only a 1 m baulk separating them. Digging was done in 10 cm. spit intervals, and a maximum depth of 2 m was excavated. There was a dearth of artifacts from the uppermost level to level 10. The first set of artifacts, which were two pieces of potsherds, were recovered from level 11, that is, at a depth of 110 cm.

Four stratigraphic layers (Figure 2) were delineated, using the exposed soil section as our guide and control. The main criterion for stratigraphic delineation was color, since the texture of the soil (which was sand) was the same for all layers. Layer 2 from the bottom was the main occupation layer. Table I shows the inventory of materials recovered. In all, only a few artifacts and ecofacts were recovered. These include 40 non-decorated pottery sherds (categorised into 32 body and 7 rim sherds, and 1 indeterminate), a groundstone axe recovered from level 160 cm, charcoal specks, charred palm kernels, and wood fragments (found only in the uppermost non-artifactual levels; their occurrence was due probably to recent clearing and burning of forest vegetation for farming.

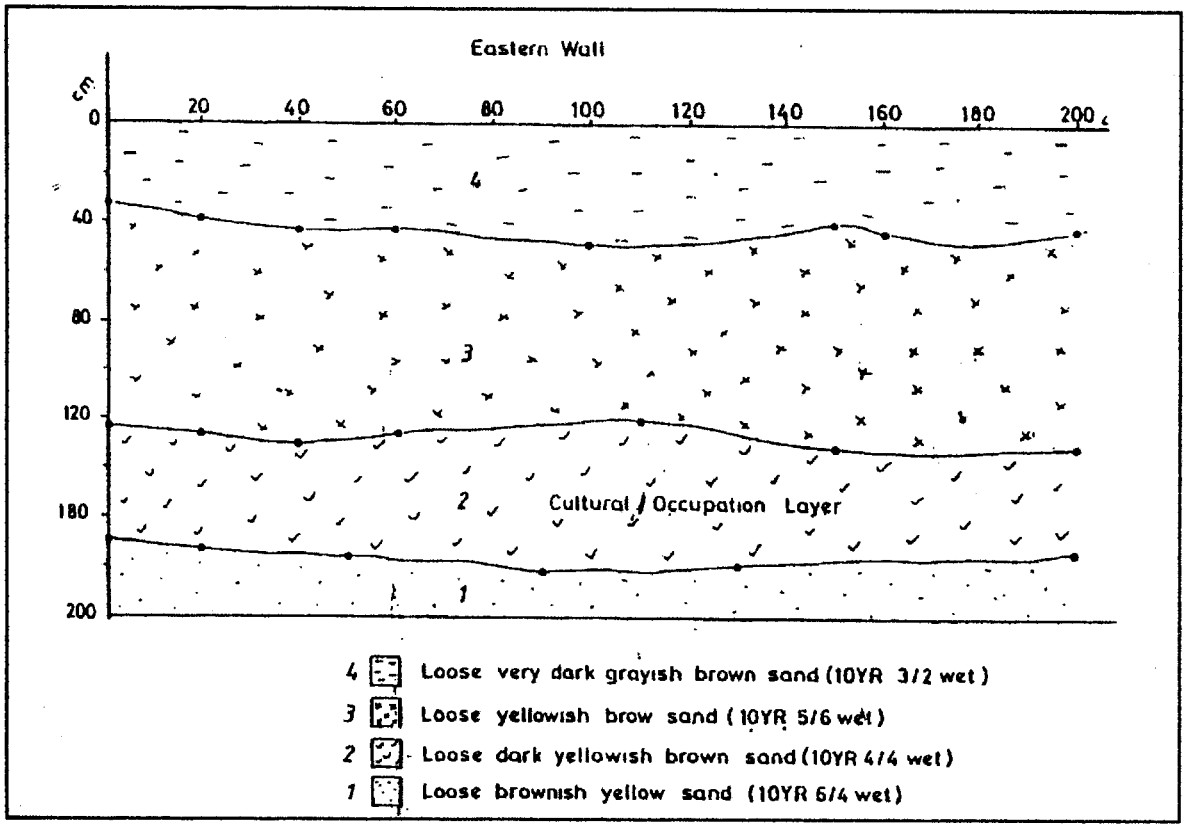
Discussion

Although only a few artifacts were recovered from this site, they are very significant in the light of human settlement and occupation of the southwest coast in particular, and the entire coast, of Nigeria. A single radiocarbon date of 2,670 ● 90 B.P. (cal. 815 B.C., Beta 89266) obtained from a piece of charcoal at a depth of 1.75 m from the surface on the eastern wall of the exposed soil section (western wall of the excavated unit) put this site as belonging to the Late Stone Age (LSA). Furthermore, the site falls within both facies C and D of Shaw (1976). According to Shaw (1976), whereas facies C sites, found at the coast, have no microliths but shells that accumulate over time to form shell middens, facies D sites, which occur in the forest, have no microliths but pottery and ground stone axes. Though this sub-division of Shaw is questionable in view of recently unfolding archaeological discoveries, it is useful in the context of our site. The site is placed within both facies C and D due to its characteristic ecological zoning (rain forest) and artifactual assemblage.

Even though the materials from the AP1 site are few, and only a single radiocarbon date was obtained, all indications point to the fact that they are LSA, and that the date is reasonably within context. The lack of decorations on the sherds would indicate that they are quite old. Indeed, these sherds look completely different from those of the other sites in the area, both in morphology and colour. They were all bowls and dark-colored, respectively and were unburnished. In contrast, sherds from other sites in the area (Apa site 2, Gberefu and Agorin), radiocarbon-dated to between the 15th and 18th centuries, are a mixture of pots and bowls, with carved wood roulette decoration predominating. Colors also ranged from reddish through brownish, grayish to darkish. Non-decorated or plain sherds in the archaeological record are believed to be the earliest forms of pottery made (Flight 1970 and Fatunsin 1996). Flight (1970), for instance, pointed out that pottery from the Punpun phase of the Kintampo culture was mostly plain in the earlier stages, while in the later stages, decoration became more common. In addition, in the neighboring Benin Republic, dates within this range of our date have been obtained from many sites. For example, Paradis (1977) obtained a date of 2,930 ± 130 B.P. at a depth of 120 cm at Ojegbame and another date of 2,510 ± 120 B.P. from Djegbadji.

What then were the mode of subsistence and relationship of the people with their environment?

Figure 2: Stratigraphy of Ap1 excavated unit.



The meager data on hand at the moment makes this a difficult question to tackle. What one can say, for now, is that the people presumably combined gathering of wild fruits (e.g. the oil palm) with agriculture and food production, although concrete evidence about the latter is as yet lacking. The presence of the ground stone axe indicate that there probably was beginning to be some form of clearing of the forest, probably preparatory to planting, as these artifacts are sometimes associated with food production (Andah and Anozie 1981; cf. Shaw and Daniels, 1984 and Oyelaran 1991) and settled life. What is not clear is whether the poor sandy soil at the site would have favored food production. What is more apparent is that if food production took place, it would not have been intensive or extensive.

Clearing of the forest preparatory to planting by c. 2,800 B.P. was suggested by Sowunmi (1985) based on her palynological analysis of a core from the Niger Delta. According to Sowunmi (1985), the sudden and remarkable increase in oil palm pollen, coupled with the appearance of pollen of weeds of waste places at this time indicate that the oil palm expansion was due to the artificial opening up of the forest for farming purposes. The presence of charred palm kernels, charcoal and ground stone axe at the cultural phase of the present site would indicate the exploitation of the oil palm *(Elaeis guineensis)*, and the clearing and burning of vegetation, probably preparatory to planting, as earlier pointed out at c.2,670 ± 90 B.P. A similar conclusion was made by Oyelaran (1991, 1998) in his study of the Itaakpa rockshelter, Nigeria. He attributed the presence of burnt palm kernels and a ground stone axe at this site to increased intensity of exploitation of the environment of the area. Oyelaran (1991) further associated charcoal specks in sediments collected from the Esa pond (located in the vicinity of Itaakpa) with bush burning in the catchment area of the pond.

At Bosumtwi, Ghana, the large percentage of the oil palm pollen at about 1.5 m of a core analysed by Talbot et al (1984) is suggested to be due to

Table 1: Ap1 index of finds

(A) Pottery

	TS-3	4-11	12	13	14	15	16	17	18	19	20	Total	%
Body sherds: decorated	-	-	-	-	-	-	-	-	-	-	-	-	-
Body sherds: plain	-	-	1	-	3	14	8	4	2	-	-	32	80.0
Decorated rims	-	-	-	-	-	-	-	-	-	-	-	-	-
Plain rims	-	-	-	-	-	6	-	-	1	-	-	7	17.5
Indeterminate rims	-	-	-	-	-	-	-	1	-	-	-	1	2.5
Total	-	-	-	-	3	20	8	5	3	-	-	40	100

(B) other (Y=present)

	TS-3	4-11	12	13	14	15	16	17	18	19	20	Total
Ground stone axe	-	-	-	-	-	-	1	-	-	-	-	1
Non tool	-	-	-	-	1	-	-	-	-	-	-	1
Charcoal speck	Y	-	Y	Y	Y	Y	Y	Y	Y	Y	-	
Palm, charred	Y	-	-	-	-	-	-	-	-	-	-	
Wood fragments	Y	-	-	-	-	-	-	-	-	-	-	

human occupation around the lake at c.3,500-3,000 B.P. Also, Stahl (1985) reported that the oil palm was exploited at Kintampo between 6,100 B.P. and 1,690 B.P. Its proportion is noted to have greatly increased at about 3,700 B.P., a period just shortly preceding the introduction of agriculture to Ghana. The single axe from our Ap1 site is not likely to be an intrusion because the depth (160 cm) and context in which it was found rule out that possibility. It is pertinent to note that its raw material, i.e., ferruginous sandstone, is found in the area, which falls within the sedimentary basin of Nigeria. Lithic materials at the historic Apa site 2 are also of sandstone. Significantly, both Apa sites 1 and 2 are found within the sedimentary basin.

It is rather puzzling to find this kind of tool made from ferruginous sandstone, a soft rock. As far as this author is aware, these Apa sites are the only sites in Nigeria where a ground stone axe/adze is manufactured from such a soft rock. In Ghana and Mali, respectively however, similar stone axes are reported by Ozanne (1964) and MacDonald (1997). As the former indicated, at a site near Legon, relatively soft rocks (such as can be cut with a knife, in Ozanne's language) were used, whilst as the latter noted, at Korounkorokale, sandstone stone axes were found.

The role of the pottery at the Ap1 site is not easy to deduce. They were probably associated with boiling of gravy and other forms of food processing. The paucity of ceramics prior to 3,400 B.P. (and probably later) in West Africa shows that their role in food production and storage was probably limited (Stahl 1993).

It appears that this site represented a single-phase occupation. Of the four stratigraphic layers revealed by our excavation, the occupation layer was the only one with cultural remains. Materials at all levels within this cultural layer were homogenous. It is difficult to determine the duration of occupation as well as what led to its abandonment. There are no environmental clues yet to suggest that people migrated elsewhere due to deteriorating environmental conditions. No major environmental changes are noted from the time of occupation (i.e. 2,670 ± 90 B.P.) to present, although there have been minor oscillations. But this area was probably abandoned several centuries before re-occupation in recent times when the area was being cleared for farming purposes.

Conclusion

The Ap1 site has provided evidence that human settlement in the coastal area of southwestern Nigeria is at least 3,000 years old, during the LSA. A radiocarbon date of 2,670 ± 90 B.P. was obtained from charcoal at a depth of 1.75 m. This site, buried deep within the crust, was exposed by tipper lorry sand loaders, and was discovered by us during an archaeological reconnaissance of the area. The date makes this site the oldest so far in the entire coastal stretch of Nigeria. Settlers probably gathered wild fruits (such as the oil palm *Elaeis guineensis)* and practiced limited agriculture. They presumably cleared and burned the forest, preparatory probably to planting, as evident from the occurrence of a ground stone axe, charred palm kernels and charcoal at the cultural layer.

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