

basis for assigning the site to that tradition, and, indeed, its pottery shows close affinities with the Khartoum Neolithic as represented at Shaheinab and related sites (Adamson et al. 1974:122-23). A radiocarbon date on shell from this site is 3530 B.C. \pm 90 (SUA-211).

Finally, to the north, the Early Khartoum tradition has been reported from the Dongola Reach (Marks, Shiner, and Hays 1968:319) and the Second Cataract area (Hays 1974:28). No absolute dates have been available for these sites, but on typological grounds their material culture is comparable to that of the Early Khartoum.

It would seem that the origins of the Neolithic economy in the Sudan are much more complex than was once thought. The absolute dates obtained for Saggai (9th millennium B.C.), Sarurab 1 (5th millennium B.C.), Sarurab 2 (8th millennium B.C.), and Shabona (6th millennium B.C.) show marked differences and are inconsistent with the close affinities reflected in the material culture of these sites. In the light of the new dates from Sarurab 2, it seems that the study of the Sudanese Neolithic in terms of a linear development from Early Khartoum to Shaheinab requires reassessment as a historical and cultural reality. Sarurab 2 has provided the earliest reliable dates so far for the Early Khartoum complex in the Nile Valley and thereby increased the probability that, as has been postulated by Arkell (1975:21) and Clark (1980:561), the wavy-line and other wares of the Early Khartoum were an early and independent development on the Upper Nile.

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Early Bantu Settlements in West-Central Africa: A Review of Recent Research¹

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Recent fieldwork carried out during 1985 and 1986 in Gabon and in Equatorial Guinea (west-central Africa) by the archaeology department of the Centre International des Civilisations Bantu has yielded very promising early results. On the basis of 54 radiocarbon dates so far processed with the aid of the Paléogab Project of the Ecole Normale Supérieure, Libreville, a first tentative chronostratigraphic sequence for this part of west-central Africa has been established.

What appear to be Neolithic settlements have been excavated in the Libreville area of Estuaire Province (fig. 1). The deposits contain a very distinctive type of ceramic with comb-rocker stamping and impressions, grinding stones and grinders of quartzite, and flint debitage. Refuse pits are known to have been dug in the village compounds. The nearest and best parallels so far on typological grounds can be found in the Yaoundé area of Cameroon, ca. 400 km to the north-east, ca. 1000-200 B.C. (see, e.g., Claes 1985). Three radiocarbon dates are associated with these materials: 510 \pm 70 B.C. (Beta-14825), 420 \pm 55 B.C. (LV-1515), 320 \pm 60 B.C. (Gif-6906).

We have elsewhere presented evidence for widespread iron smelting by the beginning of the Christian era (Clist, Oslisly, and Peyrot 1986). With these latest results, the beginnings of iron smelting in this important area now appear to extend back to the 4th century B.C. The following dates have been obtained for smelting furnaces: from Ogooué-Ivindo and Moyen-Ogooué Provinces, 310 \pm 120 B.C. (Beta-15067), 200 \pm 70 B.C. (LV-1514), 180 \pm 110 B.C. (Beta-15063); from Woleu-Ntem Province, 330 \pm 55 B.C. (LV-1521), 270 \pm 76 B.C. (LV-1520), and 160 \pm 70 B.C. (Beta-15059). Further evidence

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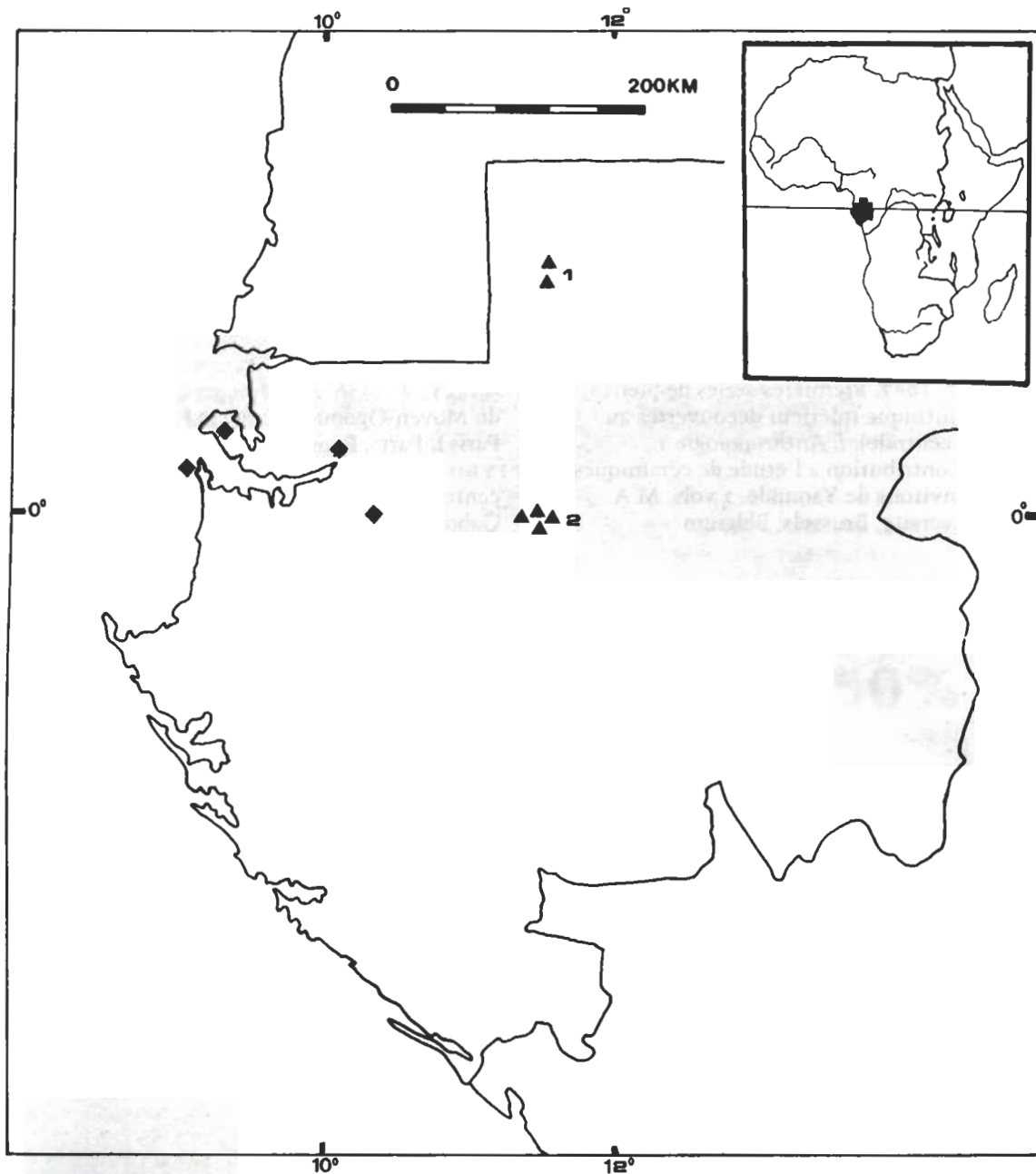


FIG. 1. Archaeological sites in Gabon. ◆, possible Neolithic sites, Estuaire Province; ▲, early Iron Age sites, 1, from Woleu-Ntem Province; 2, from Moyen-Ogooué and Ogooué-Ivindo Provinces.

suggests that the beginnings of iron metallurgy in Gabon may be earlier still: 540 ± 50 b.c. (Gif-6678) from Estuaire Province and 690 ± 70 b.c. (Beta-14834) and 450 ± 50 b.c. (Gif-7130) from the furnace in Moyen-Ogooué Province mentioned above. The smelting furnace of the Ogooué River area was usually a pit slightly more than ca. 45 cm deep and ca. 70 cm in diameter on which a clay shaft was constructed on a wooden framework. After the smelting the clay shaft was broken to extract the iron. Our evidence corroborates early dates for iron smelting previously obtained in Cameroon— 360 ± 100 b.c. [Lv-

1432] from Obobogo (see Maret n.d.)—and Gabon (see Clist, Oslisly, and Peyrot 1986, Digombe et al. 1985, Peyrot and Oslisly 1986, Oslisly 1986).

The coastal adaptation of the early Bantu settlers included heavy reliance on marine or estuarine resources. Seventeen shell middens have been identified in Estuaire Province, ranging in time from about the 4th century B.C., in a possibly Neolithic context (Gif-6906), to the 14th century A.D. (Charbonnages, 1385 ± 50 [Hv-13430]). Included in the shell layers of *Tympanotonus fuscatus* and *radula*, *Thais nodosa*, *Ostrea tulipa*, *Ana-*

dara senilis, and *Semifusus morio* are numerous fish bones of coastal and still-water species (under study by W. van Neer of Leuven University, Belgium) and, less often, human bones (Oveng shell midden, dated to 210 ± 60 a.d. [Beta-14833] and 300 ± 70 a.d. [Gif-6424]).

Mention may be made in passing of the interesting new evidence for Late Stone Age (see Clist, Peyrot, and Oslisly n.d.) and earlier times (see Bayle des Hermens et al. 1986) recovered from Gabon, the first of its kind so far published.

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