basis for assigning the site to that tradition, and, indeed, its pottery shows close affinities with the Khartoum Neolithic as represented at Shabnab and related sites (Adamson et al. 1974:122–23). A radiocarbon date on shell from this site is 3530 B.C. ± 90 (SU-A211).

Finally, to the north, the Early Khartoum tradition has been reported from the Dongola Reach (Marks, Shiner, and Hays 1986:319) and the Second Cataract area (Hays 1974:218). 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 Sagga (5th millennium B.C.), Sarabru 1 (5th millennium B.C.), Sarabru 2 (6th 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 Sarabru 3, it seems that the study of the Sudanese Neolithic in terms of a linear development from Early Khartoum to Shabnab requires reassessment as a historical and cultural reality. Sarabru 3 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 (1980:65), 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 Research

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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 Paleogob Project of the Ecole Normale Supérieure, Libreville, a first tentative chrono-stratigraphic 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. 200 km to the north-east, ca. 1000–2000 B.C. (see, e.g., Claes 1985). Three radiocarbon dates are associated with these materials: 1150 ± 70 b.c. (Beta-14825), 1350 ± 55 b.c. (LI-1511), 1350 ± 60 b.c. (Cbl-940).

We have elsewhere presented evidence for widespread iron smelting by the beginning of the Christian era (Clist, Onialy, and Peyrot 1986). With these latest results, the beginnings of iron smelting in this important area now appear to extend back to the 6th century B.C. The following dates have been obtained for smelting furnaces: from Ogooué-Ivindo and Moyen-Ogooué Provinces, 1350 ± 120 b.c. (Beta-15097), 200 ± 70 b.c. (LI-1511), 180 ± 110 b.c. (Beta-15096), from Woleu-Ntem Province, 330 ± 55 b.c. (LI-1523), 270 ± 76 b.c. (LI-1520), and 160 ± 70 b.c. (Beta-15099). Further evidence...
suggests that the beginnings of iron metallurgy in Gabon may be earlier still: 540 ± 50 B.C. (Gil-6676) from Etoua Province and 690 ± 70 B.C. (Beta-14834) and 450 ± 50 B.C. (Gil-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—560 ± 100 B.C. (E-1433) from Obobogo [see Maree n.d.], and Gabon [see Clissé, Ossunly, and Peyrot 1966, Digherbe et al. 1985, Peyrot and Ossunly 1986, Ossunly 1986].

The coastal adaptation of the early Bantu settlers included heavy reliance on marine or estuarine resources. Seventeen shell middens have been identified in Etoua Province, ranging in time from about the 4th century B.C. in a possibly Neolithic context (Gil-6906), to the 2nd century A.D. (Carbonnages, 1385 ± 50 [HV-13450]). Included in the shell layers of Tympanotonus fuscus and radula, Thuse modesta, Ostrea tulipa, Ana-
**References Cited**


Dara sensilis, and *Semilusus maro* 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-8426]. Mention may be made in passing of the interesting new evidence for Late Stone Age (see Clisit, Peyrot, and Osilisy n.d.) and earlier times (see Bayle des Hermens et al. 1986) recovered from Gabon, the first of its kind so far published.