# INSTITUT FONDAMENTAL D'AFRIQUE NOIRE RADIOCARBON DATES II

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Treatment of samples and counting equipment have remained essentially the same as described previously (R, 1974, v 16, p 404-306). Sample  $CO_2$  is used to fill a 1.2L steel proportional counter at 740mmHg.

Age calculations are based on a <sup>14</sup>C half-life of 5568  $\pm$  30 yr and 0.95 of activity of the NBS oxalic acid standard. Finite ages are quoted with  $1_{\sigma}$  criterion corresponding to the standard deviation based only on counting errors; the maximum age is quoted with  $4_{\sigma}$  criterion above background.

#### ARCHAEOLOGIC SAMPLES

These samples were coll by IFAN Prehist Dept from different districts of Senegal.

# **DaK-201. IFAN 108**

 $867 \pm 117$ 

Charcoal from Senegambian Megalithic site, Sine-Ngayene, Nioro du Rip Senegal dist (13° 41′ N, 15° 32′ W); depth 110cm, 80km from sea. Megalithic circle containing 29 human tombs; assoc objects: iron weapons, copper ornaments, ceramic, carnelian beads. Coll 1975 by G Thilmans and subm by G Thilmans and C Descamps, IFAN Prehist Dept. Comment: dates period of Senegambian Megalithic civilization.

### DaK-177. IFAN 97

 $5070 \pm 110$ 

Charcoal from Megalithic site, Tiekene-Boussoura, Koupentoum dist, Senegal (14° 00′ N, 14° 35′ W); Megalithic circle no. 8 containing human tombs. Coll 1974 by G Thilmans and subm G Thilmans and C Descamps. *Comment*: dates period of Senegambian Megalithics.

## DaK-162. IFAN 81

 $751 \pm 100$ 

Shells of ostrich egg from Rao tumulus, Massar dist, Bas-Senegal (15° 58′ N, 16° 20′ W). Coll 1942 by Joire and G Duchemin and subm by Prehist Dept, IFAN. *Comment*: dates famous golden pectoral (breast-plate) excavated from tumulus.

### **DaK-167. IFAN 85**

 $2126 \pm 110$ 

Charcoal from Tiekene-Boussoura Megalithic site, Koupentoum dist Senegal (14° 00′ N, 14° 35′ W); depth 105cm. Coll 1974 by G Thilmans and subm by G Thilmans and C Descamps. *Comment*: dates a period of Senegambian Megalithics. Cross-check was made with Nancy lab: Ny-357 =  $1980 \pm 60$ . Both dates seem to agree.

### DaK-155. IFAN 82

 $1363 \pm 120$ 

Charcoal from Sintiou-Bara site, Matam dist, Senegal (15° 42′ N, 13° 24′ W), depth 280 cm. Assoc with pottery, iron, and silver objects.

Coll 1973 and subm by A Ravise, IFAN Prehist Dept. Comment: dates period of Senegalese protohistory.

### **DaK-192.** IFAN 83

 $900 \pm 100$ 

Charcoal from same site as DaK-155, depth 225cm. Coll 1973 and subm by A Ravise.

# DaK-191. Khant 11-75

 $5415 \pm 10$ 

Shells (*Arca senilis*) from Khant II site, 25km NNE of Saint-Louis du Senegal (16° 05′ N, 16° 20′ W), depth 100cm. Assoc with human skeleton. Coll 1974 and subm by A Ravise. *Comment*: dates Neolithic skeleton and assoc industry.

The following samples are coll by Hist Dept, Fac Lettres, Dakar, from Mauritanian archaeol sites: Tegdaoujt Aoudaghost, and Koumbi Saleh (Robert, 1971).

# DaK-156. KS $AO_144$ (C)

 $981 \pm 114$ 

Charcoal from Koumbi Saleh archaeol site, Timbedra dist Mauritania (15° 40′ N, 8° 5′ W), depth 510cm, 945km from sea. Assoc with Medieval ceramics. Coll 1972 and subm by A Cros and S Robert. *Comment*: dates archaeol Layer IIIa.

# DaK-157. KS 72 $AO_144$ (D)

 $1122 \pm 125$ 

Charcoal from Koumbi Saleh site, depth 510cm, 945km from sea. Coll 1972 by A Cros and subm by A Cros and S Robert. *Comment*: dates archaeol Layer IIIa.

# **DaK-158. TEG 73** $AO_{v}$ **79**

 $633 \pm 120$ 

Charcoal from Tegdaoujt archaeol site, Tamchakett dist, Mauritania (17° 25′ N, 10° 25′ W); depth 500cm, 586km from sea. Assoc with ceramics. Coll 1973 by A Cros and subm by A Cros and S Robert. *Comment*: dates assoc industry.

### DaK-172. TEG 73 C VII 27

 $1017 \pm 100$ 

Charcoal from Tegdaoujt site, depth 260cm, 580km from sea. Assoc with Medieval ceramics. Coll 1973 and subm by C Vanaecker and S Robert. *Comment*: dates assoc industry.

### DaK-173. TEG 73 C VII 103

 $1031 \pm 100$ 

Charcoal from Tegdaoujt site, depth 115cm. Coll 1973 and subm by Claudette Vanaecker and S Robert. Assoc with Medieval ceramics. *Comment*: dates Medieval ceramics.

### **DaK-194. TEG 73 SRV**

 $1851 \pm 100$ 

Charcoal from Tegdaoujt site, assoc with modern ceramics; depth 100cm. Coll 1973 and subm by S Robert. *Comment*: dates assoc industry.

### DaK-195. TEG-73 SY III

 $1170 \pm 100$ 

Charcoal from Tegdaoujt site, depth 335cm. Assoc with Medieval ceramics. Comment: dates assoc industry.

#### GEOLOGIC SAMPLES

## Benin series

Evolution of the Benin shoreline during the late Quaternary is studied here. The actual shoreline approximates that which existed in the yr 0 and even that of the last 2 millennium BC. DaK-197 and -198 confirmed indications of DaK-182: prior to beginning of our era, sea level of Benin region of West African coast was lower than present sea level (Paradis, 1976).

## DaK-182. DY Cot 1

 $2040 \pm 110$ 

Shells (*Arca senilis*) from "crique d'Akpakpa", Cotonou Benin (6° 27′ 30″ N, 2° 28′ W); depth 20cm below sea, 200cm from shore. Coll 1974 and subm by Guilhan Paradis, Bot Lab, Univ Cotonou, Benin. *Comment*: dates sea shoreline at time of shell deposit.

# **DaK-183. DY Dje 2**

 $3900 \pm 140$ 

Shells (*Spisula*) from Djeffa dist, Benin (6° 23' N, 2° 33' 40" W); depth 90 to 100cm, 4.5km from sea. Coll 1975 and subm by G Paradis. *Comment*: dates ancient mangrove lagoon Tchonvi-Djeffa-Kpodji.

# **DaK-184. DY Dje 3**

 $640 \pm 100$ 

Shells (*Pachymelania aurita*) from Djassin-Quinvie, near Porto-Novo town, Benin (6° 29′ N, 2° 37′ W); depth 200cm under water, 12km from sea. Coll 1974 and subm by G Paradis. *Comment*: dates ancient brackish lagoon at foot of dead cliff of surf-deposited sand.

#### DaK-196. DY ouid 6

 $180 \pm 115$ 

Shells (*Arca senilis*) from Sehomi dist, W Aheme lake, Benin (6° 30′ 10″ N, 1° 58′ W); 23km from sea. Coll 1975 and subm by G Paradis. *Comment*: dates kitchen midden on Ahme Lake shore.

# DaK-197. DY ouid 7

 $2930 \pm 130$ 

Shells (Ostrea tulipa) from Djegbame Benin dist, Benin (6° 19′ 48″ N, 1° 58′ 15″ W); depth 120 cm, 3km from sea. Coll 1974 and subm by G Paradis. Comment: dates lacustrine deposits.

### DaK-198. DY ouid 9

 $2510 \pm 120$ 

Shells (Cardium ringens, Arca senilis) from Djegbadji W Ouidah town, Benin (6° 19′ N, 2° 05′ 10″ W); depth 50cm, 500m from sea. Coll 1975 and subm by G Paradis. Comment: dates shoreline at time of shell deposition.

### DaK-199. DY Cot 8

 $2675 \pm 120$ 

Charcoal from Cocotomey dist, "carriere colas", Benin (6° 23′ 40″ N, 2° 18′ 10″ W); 5km from sea. Coll 1975 and subm by G Paradis. Comment: dates layer of yellow sand considered to mark ancient shoreline.

### DaK-200. DY Cot 12

 $865 \pm 115$ 

Peat (*Rhizophora*) from Togbin dist, W Cotonou town, Benin (6° 20′ 50″ N, 2° 18′ 20″ W); 500m from sea. Coll 1975 by G Paradis. *Comment*: dates formation of *Rhizophora* mangrove at site.

### Saloum series

In this series, the late Quaternary shoreline of SW Senegal is studied. Dates are established within framework of a UNESCO 10-yr project, aiming at "River Flood and Lake Level Changes": Internatl Geol Correlation Prog (IGCP).

Whereas DaK-1974 corresponds to Nouakchott transgression, DaK-175 and -176 concur and correspond to final phase of late alluvium of Saloum R delta; alluvium could be contemporary with off-shore sand bars of Saloum R delta.

## DaK-174. E 8

 $5530 \pm 150$ 

Shells (*Arca senilis*) from Gandoul I., Saloum estuary, Senegal (13° 58′ N, 17° 35′ W); 16km from sea. Coll 1975 and subm by El Hadj Salif Diop, Geog Dept, Fac Lettres, Dakar. *Comment*: dates Nouak-chottian transgression. Oldest bank dated in Saloum Is.

### DaK-175. E 21

 $2695 \pm 100$ 

Shells (*Arca senilis*) from Sangomar Cape, Saloum, Senegal (14° 53′ N, 17° 47′ W); 500cm from sea. Coll 1974 and subm by El Hadj Salif Diop. *Comment*: dates final phase of late alluvium, contemporary to formation of off-shore sand bars of Saloum delta.

# DaK-176. P<sub>2</sub> E.3

 $2550 \pm 100$ 

Shells (*Arca senilis*) from Dienewar dist, Gandoul I, Senegal (13° 54′ N, 17° 44′ W); 1km from sea. Coll 1974 and subm by El Hadj Salif Diop and Sall, Geog Dept, Fac Lettres, Dakar. *Comment*: dates final phase of late alluvium; could be contemporary with formation of offshore sand bars of Saloum delta.

#### REFERENCES

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