

## RHODESIAN RADIOCARBON MEASUREMENTS II

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The following is a list of dates which has been obtained since the compilation of List I in December 1963. Owing to an irreparable leak in our original counter, it became necessary to replace it with a new counter of similar design using the same shield as before. The new counter has been operated both at 500 mm Hg pressure, where it has a background of 1.7 counts/min and an NBS oxalic count of 11.4 counts/min, and at 1000 mm Hg pressure, where it has a background of 2.5 counts/min and an NBS oxalic count of 22 counts/min.

We have continued to use acetylene as our counting gas and the method we use for estimating our error is essentially the same as that outlined by Callow, Baker, and Hassall (1965), apart from the fact that we do not carry out any  $\delta C^{13}$  measurements.

Our pre-treatment for organic samples remains the same as previously described. In the case of shells we have followed the procedure of Dyck, Fyles, and Blake (1965) and given our samples between 30% and 40% pre-leach with hydrochloric acid.

We would like to record our thanks to Miss E. A. Heggarty who has carried out the work of preparing and counting the samples.

### SAMPLE DESCRIPTIONS

#### I. ARCHAEOLOGIC SAMPLES

##### *A. East Africa*

**SR-16. Cherangani Hill, Kenya** **1210 ± 90**  
**A.D. 740**  
Peat sample found 175 to 185 cm below surface ( $\pm 1^\circ$  N Lat,  $35^\circ$  28' E Long). Coll. and subm. by Prof. van Zinderen Bakker, Palynological Research, Univ. of the Orange Free State, Bloemfontein, South Africa (van Zinderen Bakker, 1962).

**SR-64. Magosi Site 2, Uganda** **6080 ± 130**  
**4130 B.C.**  
Charcoal found 1 ft 10 in. deep in grey stony earth ( $34^\circ$  31' N Lat,  $2^\circ$  56' E Long). This date and several others still to be determined may provide date for Wilton culture in Uganda. Coll. and subm. by M. Posnansky, Assistant Director of British Inst. of History and Archaeol. in East Africa, P. O. Box 3913, Kampala, Uganda.

*B. West Africa*

- SR-52. Ntereso, Ghana** **3580 ± 130**  
**1630 B.C.**

Charred wood from third layer of Iron-age site at Ntereso (9° 07' N Lat, 1° 13' W Long). Coll. and subm. by O. Davies, Dept. of Archaeol., Univ. of Ghana, Legon, Ghana.

- SR-61. Ntereso, Ghana** **3190 ± 120**  
**1240 B.C.**

Charcoal from top filling (Layer 1) of same site. Date probably marks introduction of iron in Ghana which may be taken as ca. 1000 B.C.

- SR-18. Fernando Poo** **1270 ± 100**  
**A.D. 680**

Charcoal (3° 25' N Lat, 8° 45' E Long). Coll. and subm. by A. Martin, C.M.F., Inst. Claretiano de Africanistas, Apdo 10, Santa Isabel, Fernando Poo, West Africa. *Comment:* sample is thought to correspond to early Neolithic of Fernando Poo.

*C. Southern Africa*

- SR-22. Ingombe Ilede, Lusitu** **1120 ± 200**  
**A.D. 830**

Charcoal found at depth of 2 to 3 ft, to help date Zambian Iron Age (16° 10' S Lat, 28° 47' E Long). Gold burials from site were dated ca. A.D. 850. Coll. and subm. by Dr. B. Fagan, Keeper of Prehistory, Rhodes-Livingstone Mus., P. O. Box 124, Livingstone, Zambia.

- SR-23. Ingombe Ilede, Lusitu** **1160 ± 100**  
**A.D. 800**

Charcoal from the 3 ft level. *Comment:* cross-checked with Q-720 dated at A.D. 985 ± 100 (Cambridge VI).

- SR-21. Ingombe Ilede, Lusitu** **1580 ± 100**  
**A.D. 730**

Charcoal from the 3 ft to 10 in. level.

- SR-31. Isamu Ipati mound, Kalomo** **910 ± 90**  
**A.D. 1050**

Charcoal from 18 in. depth. This Kalomo culture dates Zambian Iron age. Coll. and subm. by Dr. B. Fagan.

- SR-30. Isamu Ipati mound, Kalomo** **930 ± 100**  
**A.D. 1020**

Charcoal from 42 in. depth.

- SR-19. Isamu Ipati mound, Kalomo** **1300 ± 90**  
**A.D. 650**

Charcoal from bedrock.

- SR-20. Isamu Ipati mound, Kalomo** **1852 ± 100**  
**A.D. 100**  
Charcoal from 3 ft level.
- SR-74. Karundu mound, Kalomo** **870 ± 90**  
**A.D. 1080**  
Charcoal from Karundu mound, which is 2.9 mi SE of Kalomo. Karundu mound dates further confirm Zambian Iron age culture (17° 03' S Lat, 26° 30' E Long). Coll. and subm. by Dr. B. Fagan.
- SR-66. Karundu mound, Kalomo** **1050 ± 100**  
**A.D. 900**  
Charcoal.
- SR-41. Karundu mound, Kalomo** **1160 ± 90**  
**A.D. 790**  
Charcoal.
- SR-65. Karundu mound, Kalomo** **1650 ± 90**  
**A.D. 300**  
Charcoal.
- SR-57. Behrens site, Kalomo** **110 ± 90**  
**A.D. 1840**  
Charcoal from old Tonga settlement. It is hoped to use date to place arrival of Tonga people in Southern Province of Northern Rhodesia. Coll. and subm. by Dr. B. Fagan.
- SR-42. Kangila mound, Mazabuka** **510 ± 100**  
**A.D. 1440**  
Bone (15° 55' S Lat, 27° 50' E Long). Date was obtained on inorganic content of bone, and may therefore be somewhat younger than true age. Date is first type-site of Kangila ware of northern part of Southern Province plateau. Coll. and subm. by Dr. B. Fagan.
- SR-45. Kamusongolo Kopje Cave, Kasempa** **13,300 ± 250**  
**11,350 B.C.**  
**North Western Province, Zambia**  
Charcoal (13° 27' S. Lat, 25° 51' E Long). The absolute dating and time span of the Later Stone age occupation of N of the Kafue and W of eastern Lungar has hitherto been untouched. Coll. and subm. by S. Daniels, Natl. Monuments Comm., P. O. Box 124, Livingstone, Zambia.
- SR-62. Dambwa, Livingstone** **1330 ± 110**  
**A.D. 620**  
Charcoal (17° 49' S Lat, 25° 51' E Long), found on a living site with evidence of iron smelting; dates Early Iron age occupation in Southern Province of Zambia. Coll. and subm. by S. Daniels.
- SR-47. Zimbabwe** **570 ± 90**  
**A.D. 1380**  
Charcoal from hut floor in middle of Great Enclosure (21° 3' S Lat, 31° 31' E Long). Coll. by Dr. E. Swart; subm. by R. Summers, Director,

Natl. Mus., P. O. Box 240, Bulawayo, Rhodesia. *Comment:* date confirms M-915 (Michigan VI).

**SR-58. Aboyne Mine, Fort Rixon** **650 ± 110**  
**A.D. 1300**

Charcoal from a "firesetting" in a pre-European gold mine (20° 5' S Lat, 29° 21' E Long). Mine collapsed killing at least four miners whose bones were mixed with charcoal. Coll. and subm. by R. Summers.

**SR-53. Aboyne Mine, Fort Rixon** **780 ± 110**  
**A.D. 1170**

Charcoal from same site as SR-58 and should be exactly contemporary with SR-58. Coll. and subm. by R. Summers.

**SR-43. Mabveni** **1770 ± 120**  
**A.D. 180**

Charcoal from Gomanye Hill in Chibi Tribal Trust Area (20° 22' S Lat, 30° 28' E Long), found in ashy midden in association with Gokomere pottery. Coll. by K. Robinson; subm. by R. Summers.

**SR-44. Woolandale Farm, Bulawayo** **640 ± 90**  
**A.D. 1310**

Charcoal from midden heap belonging to Leopard's Kopje industry, Phase 3. Coll. by K. Robinson; subm. by R. Summers.

**SR-68. Taba-ka-Mambo** **1080 ± 100**  
**A.D. 870**

Charcoal from 36 to 42 in. level. Coll. and subm. by K. Robinson, Hist. Monuments Comm., Natl. Mus., P. O. Box 240, Bulawayo, Rhodesia.

**SR-55. Leopard's Kopje, Khami Waterworks, Rhodesia** **1250 ± 110**  
**A.D. 700**

Charcoal from a domestic fire belonging to Leopard's Kopje industry, Phase 2. Coll. by K. Robinson; subm. by C. Cooke, Hist. Monuments Comm., P. O. Box 3248, Bulawayo, Rhodesia.

**SR-69. Tshangula cave, Matopo Hills** **112 ± 90**  
**A.D. 830**

Charcoal from Layer 1 which also contained Wilton artifacts, Bambata ware, and Leopard's Kopje ware (21° 38' S Lat, 28° 36' E Long). Coll. and subm. by C. Cooke.

**SR-75. Tshangula cave, Matopo Hills** **2150 ± 100**  
**200 B.C.**

Charcoal from bottom half of Wilton level. Coll. and subm. by C. Cooke. *Comment:* although samples 69 and 75 appeared to come from undisturbed strata, anomaly of the dates compelled further attention to the stratigraphical record. It is possible that these strata could have been disturbed by rain wash from the back of the cave and consequently the

two dates must be accepted with great reserve. Further sampling is in progress.

- 1140 ± 90**
- SR-73. Masuma River, Wankie National Park** **A.D. 90**  
Charcoal from a sealed position in eroded midden containing pottery similar to Gokomere type (18° 36' S Lat, 26° 20' E Long). Coll. by K. Robinson; subm. by C. Cooke.

- 610 ± 90**
- SR-70. Harleigh Farm, Rusape** **A.D. 1340**  
Charcoal from a Zimbabwe culture settlement (18° 32' S Lat, 32° 05' E Long). Coll. and subm. by P. Robins, Univ. Coll. of Rhodesia, P. Bag 167H, Salisbury, Rhodesia. *Comment:* see SR I for more dates from this site.

- 440 ± 90**
- SR-71. Harleigh Farm, Rusape** **A.D. 1510**  
Charcoal. Coll. and subm. by P. Robins.

- 4590 ± 100**
- SR-63. Striped Giraffe shelter, South West Africa** **2640 B.C.**  
Striped Giraffe shelter is in Karibib District of South West Africa. Charcoal found in an ash hearth 12 to 15 in. below surface. Date gives a basal date for local South West African variant of Later Stone age (Erongo culture), which shows acculturation with Wilton. Coll. and subm. by H. MacCalman, Archacol., State Mus., P. O. Box 1203, Windhoek, South West Africa.

- 870 ± 100**
- SR-46. Numas Entrance Shelter, South West Africa** **A.D. 1080**  
Numas Entrance shelter is in Numas Ravine of the Brandenburg mountains (14° 28' E Lat, 21° 10' S Long). Charcoal sample, associated with Wilton Later Stone age material in ash layer 2 to 6 in. below the surface, from an undisturbed deposit (Rudner, 1957). Coll. and subm. by H. MacCalman.

- 410 ± 100**
- SR-51. Thakadu Copper Prospect** **A.D. 1540**  
Charcoal from Thakadu Copper Prospect, 60 mi W of Francistown (21° 6' S Lat, 27° 32' E Long), Bechuanaland Protectorate. Sample came from a stope 18 ft below surface in an ancient copper working and gives indication of time when copper was first worked in this area. Coll. by G. Woodward, Rhodesian Selection Trust; subm. by Prof. G. Bond, Geology Dept., Univ. of Rhodesia, P. Bag, 167H, Salisbury, Rhodesia.

#### II. GEOLOGIC SAMPLES

- 28,540 ± 490**
- SR-67. Shell mound of Revez Duarte** **26,590 B.C.**  
Oyster shell found on bank of Umbeluzi River, Portuguese East Africa (26° 2' 3" S Lat, 32° 24' 15" E Long), some 61½ m above present

sealevel. Sample taken from 4th layer (numbering from bottom) of a profile containing 9 distinct layers. Mound is partially of human origin and sample layer itself contains paleoliths from Middle Stone age. Date marks occurrence of the Gamblian-Makalian inter-pluvial in Mozambique (Barrados, 1955). Coll. and subm. by L. Barradas, Inst. de Investigacao Cientifica de Mozambique, Caixa Postal 1780, Lourenco Marques, Mozambique.

**33,720 ± 700**

**SR-72. Kassimatis Quarry**

**31,770 B.C.**

Oyster shell found on bank of Matola River, Portuguese East Africa (25° 58' 22" S Lat, 32° 26' 10" E Long), some 2½ m above present sealevel on a raised beach. Sample taken from 3rd layer of a profile containing 8 distinct layers. Date marks occurrence of the Gamblian-Makalian inter-pluvial transgression. Coll. and subm. by L. Barradas.

**4730 ± 200**

**SR-29. Forno da cal, Maputo River**

**2780 B.C.**

Shell sample (*Balanus* sp.) from bank of Maputo River, Portuguese East Africa (26° 25' 25" E Lat, 32° 39' 45" S Long), some 4½ m above present sealevel. Sample taken from 3rd layer of a profile containing 6 layers. Date marks later stages of Gamblian-Makalian transgression in Mozambique. Coll. and subm. by L. Barradas.

**4090 ± 150**

**SR-27. Chidenguela**

**2140 B.C.**

Fossil mollusca occurring in a sandstone wall running parallel to the littoral at the beginning of the Makalian regression (Borges, 1939). Coll. and subm. by L. Barradas.

**1710 ± 100**

**SR-40. Situmpa Forest Station, Machili, Zambia A.D. 240**

Charcoal sample (16° 50' S Lat, 25° 07' E Long), from a forest pit in the Kalahari sand; depth 42 in. Coll. and subm. by B. Fagan. *Comment:* sample has been dated in order to check C-662 (4078 ± 300; Libby, 1952), which was much older than expected.

*Corrections* to Southern Rhodesia I, Radiocarbon, vol. 6, p. 31-36.

SR-11. Pomongwe cave, Matopo Hill. '1st Intermediate Stone age' should read '2nd Intermediate Stone age.'

SR-24. Situmpa Forest Station. 'Depth 42 in.' should read 'depth 48 in.'

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