

**INSTITUT ROYAL DU PATRIMOINE ARTISTIQUE
RADIOCARBON DATES VII**

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This list contains most of the measurements made during 1979, since our last list (R, 1979, v 21, p 180-185). The laboratory procedures were outlined previously (R, 1968, v 10, p 29-34; R, 1971, v 13, p 29-31). The collagen extraction follows Longin (1970).

I. GEOLOGIC SAMPLES

A. Belgium

Booitshoeke series

Alternating clay and peat layers in Western Belgian Coastal plain. Coll and subm 1978 by C Baeteman, Geol Service, Belgium.

- | | |
|---|-------------------|
| IRPA-285. Booitshoeke Zeedijk 1 | 2080 ± 140 |
| Top of peat layer, 55cm thick, at 100cm below surface (51° 05' 38" N, 2° 44' 05" E). | |
| IRPA-286. Booitshoeke Zeedijk 2 | 3740 ± 140 |
| Base of peat layer, 55cm thick, at 155cm below surface (51° 05' 38" N, 2° 44' 05" E). | |
| IRPA-287. Booitshoeke Zeedijk 3 | 3970 ± 190 |
| Top of lower peat layer, 40cm thick, at 170cm below surface (51° 05' 38" N, 2° 44' 05" E). | |
| IRPA-288. Booitshoeke Zeedijk 4 | 4770 ± 220 |
| Base of lower peat layer, 40cm thick, at 210cm below surface (51° 05' 38" N, 2° 44' 05" E). | |
| IRPA-289. Booitshoeke Vaart BH 10 | 3250 ± 150 |
| Top of peat layer, 35cm thick, at 100cm below surface (51° 05' 25" N, 2° 43' 50" E). | |
| IRPA-290. Booitshoeke Vaart BH 11 | 4030 ± 400 |
| Base of peat layer, 35cm thick, at 135cm below surface (51° 05' 25" N, 2° 43' 50" E). Dilution: 30% sample. | |
| IRPA-291. Booitshoeke Vaart BH 12 | 4260 ± 210 |
| Top of lower peat layer, 65cm thick, at 200cm below surface (51° 05' 25" N, 2° 43' 50" E). | |
| IRPA-292. Booitshoeke Vaart BH 13 | 4300 ± 200 |
| Base of lower peat layer, 65cm thick, at 265cm below surface (51° 05' 25" N, 2° 43' 50" E). | |

Avekapelle series

Peat layer in Western Belgian Coastal plain from 115 to 300cm below surface (51° 04' 44" N, 2° 45' 25" E). Coll and subm by C Baeteman.

IRPA-334. Avekapelle 32-35 **3450 ± 180**

Sample 175 to 185cm below surface.

IRPA-335. Avekapelle 25-28 **4240 ± 190**

Sample 205 to 215cm below surface.

IRPA-336. Avekapelle 58-60 **3340 ± 170**

Sample 130 to 140cm below surface.

General Comment: ages of first end of peat growth in Booitshoeke and beginning of wetter conditions in Avekapelle agree well. Age of second start of peat growth and end of wet conditions seriously disagree. Age of top is nearly identical in Booitshoeke Vaart and Avekapelle, and is similar with IRPA-283, -337, and -338 (Baeteman *et al*, 1979).

B. North Sea

IRPA-333. Whale bone **1980 ± 110**

Whale bone (*Exchrichtus gibbosus*) found at bottom of North Sea (51° 30' N, 0° 42' E). Coll 1978 by N Craps and subm 1979 W Desmedt, Inst Royal Sci Nat, Belgium. *Comment:* sample washed with 25% HCl; dated with carbonate because of insufficient collagen.

*C. Southeast Africa***Namib-Erongo series**

Calcareous rock from East Africa. Samples were washed with 25% HCl until 50% loss of material. Coll 1974 and subm 1977 by W D Blümel, Geol Inst, Univ Karlsruhe, West Germany.

IRPA-275. Namib 51a **21,300 ± 570**

Carbonate from layer in Namib reserve (24° S, 16° E), alt + 900m.

IRPA-276. Namib 44a **>45,000**

Carbonate nodules and sand from layer in Namib reserve (24° S, 16° E), alt + 900m.

IRPA-277. Erongo 98a **19,600 ± 470**

Carbonate from layer on Erongo Mt (21° 30' S, 15° 20' E), alt + 1200m.

IRPA-278. Erongo 95 **29,900 ± 660**

Carbonate from layer on Erongo Mt (22° 30' S, 15° 20' E), alt + 1200m.

General Comment: dates agree with expected age.

II. ARCHAEOLOGIC SAMPLES

A. Belgium

Leffinge series

Multidisciplinary study on Roman saltmaking furnaces at Leffinge in Belgian Coastal plain (51° 08' 40" N, 2° 52' 13" E). Coll July 1978 by C Baeteman, C Verbruggen, and H Thoen; subm 1978 by C Baeteman.

IRPA-282. LFZ 78/27/15 **4470 ± 220**

Base of peat layer, 40cm thick, at 120cm below surface.

IRPA-283. LFZ 78/15/24 Oven XII **3140 ± 170**

Top of peat layer, 40cm thick, underlying Furnace XII, at 80cm below surface.

IRPA-284. I LFZ 78/17/a₃ **2380 ± 130**

IRPA-284. II **2120 ± 120**

Ashes from furnace, from center of layer, 25cm thick, at 85cm below surface. *Comment:* I and II are two fractions of same sample.

IRPA-337. LFZ A-Peat **3340 ± 190**

Top of same peat layer as IRPA-283. Dated to compare with palynologic analysis.

IRPA-338. LFZ A-Wood **3230 ± 160**

Wood in same peat layer as IRPA-337.

General Comment: dates of top and base agree with Antw-227, -102, and -249 (Vanhoorne and Van Dongen, 1976; Vanhoorne, Van Strydonck, and Dubois, 1978). Expected date for IRPA-284 was 1700 BP; radiocarbon dating reveals that furnace fuel was probably a mixture of Roman-age material (wood) and peat. The peat layer under furnaces was not disturbed.

IRPA-346. Bredene **460 ± 90**

Human bones from excavation at Bredene (51° 14' 43" N, 2° 57' 11" E), at 80cm depth. Coll 1976 by R Eeckhout and subm 1979 by H Thoen, Univ Gent, Belgium. *Comment:* dated with collagen; no archaeol data.

Dinant series

Human bones from excavation in transept of collegiate church in Dinant (50° 15' 44" N, 4° 54' 50" E). Coll Sept 1978 by M Osterrieth and subm 1979 by P Bonenfant, Univ Libre, Brussels, Belgium.

IRPA-293. Dinant I **780 ± 40**

IRPA-294. Dinant II **830 ± 50**

General Comment (PB): dates confirm expected age between 11th and 13th centuries.

IRPA-220. Liège n° 5 **1100 ± 230**

Wood from excavation at Liège (50° 30' 51" N, 5° 34' 45" E). Coll 1974 and subm 1979 by M Otte, Serv Archeol Prehist, Univ Liège, Belgium. *Comment*: date agrees with archaeol data.

*B. Asia***Tell ed-Dér series**

Samples in muddy clay from occupied ground of tell, alt 36 to 37m, at Tell ed-Dér, Iraq (33° 05' 08" N, 44° 14' 35" E). Coll 1975 by H Gasche and subm 1979 by L De Meyer, Seminar Archeol, Univ Gent, Belgium. *Comment*: samples with (P) were indurated with Paraloid which was removed by dry distillation. These dates complete those published in R, 1979, v 21, p 180-185.

IRPA-304. DPr 509 **4070 ± 230**

Burned wood (*Populus*) from Layer 21.3.1, Boring E.

IRPA-305. DPr 531 (P) **4030 ± 200**

Burned wood (*Populus* and *Pinus*) from Layer 22.3.1, Boring E.

IRPA-306. DPr 532 (P) **4160 ± 210**

Burned wood (*Populus*) from Layer 15.3.1, Boring E.

IRPA-307. DPr 533 **5180 ± 250**

Burned wood (*Populus*) from Layer 21.3.1, Boring E.

IRPA-309. DPr 535 (P) **3910 ± 200**

Wood and clay from Layer 22.3.1, Boring E.

IRPA-310. DPr 584 **4010 ± 200**

Burned wood from Layer 27.3.1, Boring E.

Apamee series

Animal bone and charcoal fragments from occupied ground of tell, alt 210m, at Qal at el-Mudiq (Hama), Syria (35° 25' N, 36° 24' E). Coll 1974 and subm 1976 by J Balty, Mus Royaux Art et Hist, Brussels, Belgium.

IRPA-205. AP. 74. III. 1.1 **1400 ± 80**

Bone fragments from Room E.

IRPA-206. AP. 74. III. 2 **580 ± 30**

Bone fragments from Room F.

IRPA-208. AP. 74. III. 23 **1090 ± 80**

Bone fragments under Column C19.

IRPA-209. AP. 74. III. 26 **1280 ± 70**

Bone fragments from second floor, C12-C13.

IRPA-210. AP. 74. III. 30	910 ± 70
Bone fragments.	
IRPA-212. AP. 75	1310 ± 80
Charcoal from E Cathedral.	
IRPA-213. AP. 74. V. 5, 6 and 15	3500 ± 170
Bone fragments from Layer III.	
IRPA-214. AP. 74. V. 8.3	3200 ± 150
Bone fragments from Hole 2.	
IRPA-215. AP. 74. V. 7.3	3710 ± 210
Bone fragments from Hole 1.	

General Comment: dates agree with archeol data: coins and ceramics. IRPA-213, -214, and -215 dated with carbonate because of insufficient collagen; dates are too young, probably because of carbonate contamination.

REFERENCES

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