

INSTITUT ROYAL DU PATRIMOINE ARTISTIQUE  
RADIOCARBON DATES II

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INTRODUCTION

The method used was described in R., 1968, v. 10, p. 29-35. The counter is the same (M.B.L.E. Houtermans and Oeschger) but the electronic apparatus is new; all is transistorized and the installation operates in preset time. The counter is filled at a pressure of 600 to 1000 mm Hg; sample, modern reference, and background are counted at the same pressure and reduced to standard conditions: 760 mm Hg, 20°C. Atmospheric pressure and temperature are measured at each filling. Samples are counted for 20 hours at one month intervals and a third time if measurements do not agree within two standard deviations. Age calculations are based on a contemporary value equal to 0.95 of activity of NBS oxalic acid standard and 5570 yr for the half-life of C<sup>14</sup>, 1950 used as reference year. Errors quoted include the standard deviations of the count rates for unknown sample, modern and background; no corrections are made for isotopic fractionation.

SAMPLE DESCRIPTIONS

I. GEOLOGIC SAMPLES

- IRPA-39. Wenduine** **11,349 ± 364**  
**9399 B.C.**  
Marine shells from E coastal area of Belgium (51° 18' 30" N Lat, 3° 5' 52" W Long), at -8.5 m alt, in the Wenduine formation. Coll. 1968 by W. De Breuck, Lab. of Geol., Univ. of Ghent, Belgium. *Comment:* pretreated with HCl 1 N until 15% weight loss.
- IRPA-40. Varsenare** **11,647 ± 391**  
**9697 B.C.**  
Marine shells from E coastal area of Belgium (51° 12' 49" N Lat, 3° 7' 47" W Long), at -4 m alt, probably in the Meetkerke formation of undetermined age. Coll. 1964 by W. De Breuck. *Comment:* see IRPA-39.
- IRPA-41. Varsenare** **5068 ± 216**  
**3118 B.C.**  
Peat from E coastal area of Belgium (51° 13' 1" N Lat, 3° 7' 16" W Long), at 0 m alt, in peat of Nieuwmunster in age range of late Atlantic to Sub-Boreal. Coll. 1967 by G. De Moor, Lab. of Geol., Univ. of Ghent, Belgium; subm. by W. De Breuck. *Comment:* refluxing hot HCl 1% for 1 hr, no NaOH pretreatment.
- IRPA-42. Uitkerke** **5064 ± 229**  
**3114 B.C.**  
Peat from E coastal area of Belgium (51° 17' 35" N Lat, 3° 7' 14" W Long), at -0.5 m alt, in peat of Nieuwmunster. Coll. 1966 by W. De Breuck. *Comment:* see IRPA-41.

*General Comment* (W.DeB.): field work by Center of Hydrogeological Research at the State Univ. of Ghent has provided new data about relief of Tertiary substratum and lithostratigraphy of Pleistocene and Holocene sediments of E coastal area. A SN sec. indicates existence, on buried surface of Tertiary substratum, of 2 degradation levels (between  $-17$  and  $-22$  m and between  $-8$  and  $-6$  m). Date of IRPA-39 comes from  $-8.5$  m level. IRPA-41 and -42, which are the same age, come from levels 0 and  $-0.5$  m. These results agree with stratigraphic position of deposits.

## II. ARCHAEOLOGIC SAMPLES

- 1921  $\pm$  100**
- IRPA-27. Suse (Bar-e-Mechandeh)** **A.D. 29**
- Wood (cedar), Ber-e-Mechandeh, Khuzistan ( $31^{\circ} 11'$  N Lat,  $48^{\circ} 17'$  E Long), found 1968 on site of Royal Town, at 50 cm depth on floor of room by H. Gascher, Nekkersberglaan, Ghent. *Comment*: date given in R., 1968, v. 10, p. 29 is wrong; new value agrees with archaeological date: 1st century B.C.
- 677  $\pm$  81**
- IRPA-28. Herresbach St. Vith** **A.D. 1273**
- Wood (linden) of statue "Vierge à l'Enfant" Herresbach St. Vith, Liège, Belgium ( $50^{\circ} 16'$  N Lat,  $6^{\circ} 6'$  E Long). Coll. 1967 by A. Balles-trem, IRPA. *Comment* (R. Didier): from historic study of "Vierge à l'Enfant"; this statue seems to be imitation of a French statue from 14th century A.D., made at the end of 19th century. Date does not conform with this study; possibly, wood that was used was older, or part of statue is original.
- 1089  $\pm$  72**
- IRPA-30. Brugge** **A.D. 861**
- Wood from St. Donatien Church, Brugge, W Flanders, Belgium. Used to draw church perimeter. Coll. 1955 by J. Mertens, Service Nat. des Fouilles, Brussels, Belgium. *Comment* (J.M.): agrees with archaeol. date: 9th century A.D. Sample is proof that our dates are corrected and our installation is in order.
- Alba series**
- Samples of charcoal found in Alba excavations, Aquila, Italy ( $42^{\circ} 05'$  N Lat,  $13^{\circ} 12'$  E Long), alt 992 m. Coll. 1966 by G. De Boe; subm. by J. Mertens.
- 1728  $\pm$  98**
- IRPA-31. Trench 66 IV** **A.D. 222**
- 2290  $\pm$  110**
- IRPA-32. Trench 66 IV** **340 B.C.**
- 2210  $\pm$  146**
- IRPA-33. Trench 66 VI** **260 B.C.**

*General Comment* (J.M.): IRPA-31 was found with imperial coins of 3rd century A.D. in Roman house. Date agrees with archaeol. data. IRPA-32 and -33 were found in Roman house of 2nd century B.C. Thus, results seem too old; archaeol. date: 1st century A.D.

#### **Florenville series**

Two pieces of charcoal found in archaeological layer on Roman site, Chameleux, Florenville, Luxembourg, Belgium (49° 40' N Lat, 5° 18' E Long), alt 265 m. Coll. 1962 by J. Mertens.

**IRPA-35.**

**1126 ± 87**  
**A.D. 724**

**IRPA-36.**

**1631 ± 98**  
**A.D. 319**

*General Comment* (J.M.): Service Nat. de Fouilles began excavations of Roman Site of Chameleux in 1954. Site existed from 1st century A.D. to 5th century A.D. Date for IRPA-35 is too young but contamination by roots is possible. IRPA-36 agrees with archaeol. data: 4th century A.D.

**IRPA-54. Dendermonde**

**4169 ± 198**  
**2119 B.C.**

Wood from layer of Holocene peat, Dendermonde, E Flanders, Belgium; St. Arnolphe excavations. Subm. 1969 by Prof. Vanhoorne, Antwerp Univ., Centre Dept. of Sci. *Comment*: date agrees with pollen analysis: ca. 3000 B.C.

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