

FLORENCE RADIOCARBON DATES IV

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This list comprises age measurements carried out from May 1977 to July 1978. Nearly all the samples are of prehistoric and archaeological interest. All samples are from Italian territory.

Pretreatment of samples, production of purest CO₂ and counting techniques have been described elsewhere (Azzi, 1972; Azzi *et al*, 1973; Azzi *et al*, 1974). Ages of samples are calculated using the conventional half-life of 5570 + 30 yr and refer to 1950. Errors are stated in terms of one standard deviation of counting statistics.

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SAMPLE DESCRIPTIONS

I. PREHISTORIC AND HISTORIC SAMPLES

Italy

Grotte Verdi di Pradis series

Charcoal from Grotte Verdi di Pradis, Clauzetto Co, Pordenone prov, loc Gecchia in Prealps of Friuli on right side of Tagliamento R (46° 14' 43" N, 12° 53' 14" E), at + 520m. Coll 1970 and subm 1976 by G Bartolomei and B Sala, Ist Geol and Paleontol Umans Ferrara. Charcoals refer to 2 different caves; accompanying fauna comprises *Marmota marmota* and *Microtus nivalis*, indicating Alpine prairie. Rare human industry is ascribed to Evolved Epigravettian.

F-84. Grotte Verdi di Pradis IIA-2 **11,770 ± 260**

Charcoal from Sec II, Layer 2, Evolved Epigravettian industry.

F-85. Grotte Verdi di Pradis IV,1b **11,250 ± 310**

Charcoal from Sec IV, Layer 1b, Evolved Epigravettian industry.

F-86. Grotte Verdi di Pradis IV,1 **10,970 ± 290**

Charcoal from Sec IV, Layer 1, Evolved Epigravettian industry.

General Comment: dates agree with chronology of Evolved Epigravettian of Northern Italy at Riparo Tagliente, Verona (R-605α: 13,430 ± 180; R-605: 13,330 ± 160; R-604: 12,000 ± 400; R-371: 12,040 ± 170) (Alessio *et al*, 1970). From a paleoclimatic point of view, presence of Alpine prairie at height +520m indicates that reascension of woodland has not yet occurred along with persistence of conditions of tardiglacial aridity.

Altavilla series

Peat from sounding done near Altavilla, Vicenza prov, in alluvial soil of left branch of Pleistocenic Conoid of Agno torrent, which creeps into depression between Lessini mts and Berici hills (45° 31' 4" N, 11°

29' 08" E). Coll and subm 1976 by G Bartolomei and R Bartolomei, Ist Geol & Paleontol Umans Ferrara.

F-87. Altavilla, -2.10 to -2.20m **3570 ± 90**

F-88. Altavilla, -3.20 to -3.40m **12,240 ± 230**

Date confirms Pleistocene age for Conoid.

F-97. Porto Badisco **6465 ± 185**

Charcoal from basal fireplace of Porto Badisco Cave, 11Km S Otranto, Apulia (40° 04' 30" N, 18° 29' 13" E). Coll 1970 by G F Lo Porto, Sov Antichità Apulia and subm 1972 by P Graziosi, Ist Antropol, Firenze. First date of settlement important for abundance of industry and rock art related to Neolithic and Early Metal ages.

F-99. Fiesole **990 ± 50**

Wood from a Medieval bucket belonging to Mus Fiesole, Firenze, inventory no. 802. Place of discovery is unknown. Subm 1977 by R Francovich, Ist Archaeol Medioevale Siena. Date agrees with typology.

Dicomano series

Charcoal from core of archaeol layer in open site of Dicomano, Florence prov (43° 53' 26" N, 13° 04' 26" E). Coll and subm 1976 by L Sarti, Ist Antropol Siena. The analyzed level lies between 2 alluvial layers and contains pottery and lithic industry belonging to Middle Bronze age.

F-103. Dicomano 3 **3280 ± 80**

F-104. Dicomano 4 **3220 ± 80**

General Comment: dates agree with typologic estimate and with other dates as F-73: 2850 ± 80; F-74: 3270 ± 80 (Azzi *et al*, 1977).

Castelcivita series

Charred bones from different levels of Castelcivita Cave, Salerno (40° 29' 41" N, 15° 12' 36" E). Coll and subm by P Gambassini, Ist Antropol Siena.

F-105. Castelcivita 8 **31,950 ± 650**

Charred bones from Level 8 containing Proto-Aurignacian industry with marginal backed points and carinated endscrapers. Samples is just above Level 9, F-72: 32,930 ± 720 (Azzi *et al*, 1977).

F-106. Castelcivita 12 **>34,000**

Charred bones from Level 12 of Uluzzian age. It underlies F-71: 32,470 ± 650 (Azzi *et al*, 1977).

F-107. Castelcivita 14 **33,220 ± 780**

Charred bones from Level 14, lower part of Uluzzian layer; lithic industry is mainly made up of splintered pieces.

General Comment: good agreement with previous dates and with Early Upper Paleolithic. F-106 seems too old.

F-108. Serino 31,200 ± 650

Charcoal from level with fireplace in open site near Sala di Serino, Salerno (40° 51' 28" N, 14° 51' 38" E). Coll and subm 1976 by A Ronchitelli, Ist Antropol Siena. Dated layer underlies volcanites and contains lithic industry of early phase of Upper Paleolithic, probably Aurignacian.

Grotta della Cala series

Charcoal from levels of Epigravettian age in Grotta della Cala, Salerno (40° 00' 02" N, 15° 22' 52" E). Coll 1974 and subm 1976 by F Martini, Ist Antropol Siena.

F-109. Grotta della Cala, F 10,390 ± 180

Charcoal from Layer F, final Epigravettian industry.

F-110. Grotta della Cala, H (upper) 12,350 ± 250

Charcoal from upper cuts of Layer H, final Epigravettian industry.

F-111. Grotta della Cala, H (lower) 12,020 ± 210

Charcoal from lower cuts of Layer H, final Epigravettian industry. Date agrees with F-21: 12,030 ± 220 (Azzi *et al*, 1973).

F-112. Grotta della Cala, M 14,740 ± 850

Charcoal from Layer M. Transition between evolved Epigravettian industry and Final Epigravettian age.

F-113. Grotta della Cala, N 16,320 ± 850

Charcoal from different cuts of Layer N. Upper level of this layer contains Evolved Epigravettian industry of "transitional" phase to the Final Epigravettian age; lower level contains Evolved Epigravettian industry.

General Comment: dates agree with typologic estimate.

Stufles series

Charcoal from little Iron age house uncovered during building excavation in Stufles sec of Bressanone, Alto Adige (46° 43' 12" N, 13° 14' 51" E). Coll and subm 1977 by L Dal Ri, Sovrintendenza prov ai beni culturali Bolzano. Site is rich in pottery and bronze.

F-114. Stufles, Capanna FE 2320 ± 70

Charcoal from truss lying on Wall 5.

F-115. Stufles B 2750 ± 70

Charcoal from hut, Zone 1.

F-116. Stufles LF 2240 ± 80

Charcoal from truss directed toward corner of Wall 1 and 5.

General Comment: hut reflects characteristics of Rethic house (from Rethic Alps, N Italy). Dates are slightly too old for F-115 and slightly too young for F-114 and F-116.

F-117. Lignitized wood **4370 ± 80**

Partially lignitized wood extracted from clayey matrix of ancient earth movement, presently stabilized, found at crossroad of Piancaldolese and Frassineta prov rds, Toscana (44° 11' 00" N, 13° 33' 17" E). Coll and subm 1977 by P Galletti, Prov Firenze. Purpose of this date is study of dynamics of earth movements related to formation of Chaotic complex near Apeninic ridge.

F-118. Adige **470 ± 40**

Wood from base of Adige R, loc Fontanella, Veneto (45° 22' 00" N, 11° 10' 10" E). Coll and subm 1978 by L Sorbini, Mus Civico Storia Nat, Verona. Sample belongs to trunks > 20m long and 2m diam exposed by recent erosion of Adige R.

Brezzo di Bedero series

Wooden wedges from old trusses of Collegiata S Vittore N of Brezzo di Bedero, Varese, on E bank Lago Maggiore (45° 58' 49" N, 16° 11' 8" E, at +403m). Coll and subm 1978 by F Ramponi, Architect, Milan.

F-119. Brezzo di Bedero **870 ± 40**

Wood from Truss 1.

F-120. Brezzo di Bedero **430 ± 40**

Wood from Truss 2.

F-121. Brezzo di Bedero **380 ± 40**

Wood from Truss 3.

F-122. Brezzo di Bedero **510 ± 40**

Wood from Truss 4.

F-123. Brezzo di Bedero **530 ± 40**

Wood from Truss 5.

F-124. Brezzo di Bedero **960 ± 40**

Wood from Truss 6.

F-125. Brezzo di Bedero **420 ± 40**

Wood from Truss 7.

F-126. Brezzo di Bedero **450 ± 40**

Wood from Truss 8.

F-127. Brezzo di Bedero **480 ± 40**

Wood from Truss 9.

F-128. Brezzo di Bedero **600 ± 40**

Wood from Truss 10.

General Comment: according to records of Roboaldo, Archbishop of Milan (AD 1137), only 2 sides and 3 fine apses of the Romanesque building

rebuilt in 12th century on an older church, still remained in view. The old trusses were hidden by vaults built from end of 16th century onwards. Dates confirm that building material from the older church was used, which is previous to AD 1137, and that various modifications took place afterwards. Trusses are still well preserved.

F-129. S Francesco**370 ± 60**

Walled-up wood from 1st room of upper corridor on left side of S Francesco church, Faenza, Toscana (44° 17' N, 12° 33' E). Coll and subm 1978 by A Gai, Conserv Cherubini, Florence. Date is related to wider study concerning possible differences in acoustic behavior between antique and modern wood in musical instruments, especially violins.

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