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INSTITUT FONDAMENTAL D'AFRIQUE NOIRE RADIOCARBON DATES I

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We follow the same method of radiocarbon dating used in the Gif-Sur-Yvette dating laboratory. Samples are inspected and foreign material removed. Wood and charcoal samples are treated with 0.1N ammonium hydroxide and 0.1N hydrochloric acid. Shells are treated with 10% hydrochloric acid to eliminate surface contamination. Bone samples are treated with 0.1N ammonium hydroxide to remove humic acids and 10% HCl to remove inorganic carbonate and retain collagen for radiocarbon measurements. Sample CO_2 is produced by combustion in oxygen. The stream of gases passes over CuO at 600°C to insure complete oxidation of C to CO_2 and through traps containing, respectively, silver nitrate and sulfuric chromic acid solution for purification; barium carbonate is precipited from barium hydroxide bubblers. After filtering and drying, CO_2 is liberated from barium carbonate by sulfuric acid. The CO_2 is used to fill a 1.2L steel proportional counter at 740mm Hg. Age calculations are based on a ^{14}C half-life of 5568 ± yr and 0.95 of activity of the NBS oxalic acid standard; ages are quoted in yr before 1950. Finite ages are quoted with 1σ criterion corresponding to the standard deviation based only on counting errors; the maximum age is quoted with 4σ criterion above background.

We sent our results for all samples listed here before receiving data about them. This list includes only cross-check samples from different laboratories; the table summarizes our results. Agreement of dates is generally good; John C Sheppard states that "the disagreements on WSU-1281 and -1302 can be attributed to the high barometric pressure dependence of the WSU system's background."

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Lab. no.	Locality	Sample	Age BP	Reference
L-607 B	Mensha	Wood	11,800 ± 100	Broecker, W S and Farrand, W R, The radiocarbon age of the Two Creek forest bed: Lamont Geol observatory, Columbia Univ (in press).
DaK-122	"	"	11,700 ± 170	
L-730	Little Valley	Wood	20,800 ± 400	Broecker, W S and Kaufman, Aaron, 1965, Radiocarbon chronology of Lake Lahontan and Lake Bonneville, pt 2, Great Basin: Geol Soc America Bull, v 76, p 537-566.
DaK-123	"	"	20,600 ± 500	
P-497,		Wood	60 to 28 BC	Ralph, E K and Michael, N H, 1970, MASCA radiocarbon dates for sequoia and bristlecone-pine samples, *in*: Olsson, I U (ed), Radiocarbon variations and absolute chronology, Stockholm, Almqvist & Wiksell.
P-SW-SEq-2		(tree rings)	1990 ± 120	
DaK-124		"	39 BC	
P-495,		Wood	148 BC to 109 BC	
P-SW-SEq- 2		(tree rings)	2070 ± 120	
DaK-125		"	120 BC	
P-1518	Franchthi cave	Charcoal	8938 ± 100	Lawn, Barbara, 1971, University of Pennsylvania radiocarbon dates XIV: Radiocarbon, v 13, p 366.
DaK-126	"	"	9000 ± 150	
O-1738 (EPR1)	Galveston Co, Texas	Marine shells	1975 ± 105	
DaK-127	"	"	2070 ± 110	Unpub
O-1432	"	"	2750 ± 115	
DaK-128	"	"	2650 ± 120	
O-1781 (EPR3)	St Martin Parish, Louisiana	Peat	3825 ± 120	Unpub
DaK-129			3460 ± 120	

Lab. no.	Locality	Sample	Age BP	Reference
I-4987		Wood	5710 ± 120	Unpub
DaK-130			5630 ± 125	
ISGS-73	P-7258	Wood	9270 ± 120	Coleman, D D, 1973, Illinois State Geological Survey radiocarbon dates V: Radiocarbon, v 15, p 75-85.
DaK-131	"	"	9410 ± 120	
ISGS-74	Miller Creek	Wood	2850 ± 80	
DaK-132	"	"	2960 ± 100	
ISGS-679	Mohomet SW	Wood	21,670 ± 130	" "
DaK-133			21,800 ± 400	
WSU-1303		Charcoal	1310 ± 140	
DaK-137			1110 ± 110	
WSU-1281		Collagen	12,850 ± 150	Unpub
DaK-138			11,500 ± 210	
WSU-1268		Charcoal	Modern	"
DaK-139			Modern	
WSU-1302		Charcoal	640 ± 140	"
DaK-140			1180 ± 120	
SI-662		Shells	1625 ± 125	
DaK-149			1580 ± 120	
SI-820	Cariri Brazil	Charcoal	305 ± 65	Stuckenrath, Robert and Mielke, J E, 1973, Smithsonian Institution radiocarbon measurements VIII: Radiocarbon, v 15, p 421.
DaK-150			670 ± 120	
SI-968	Islelo	Peat	3105 ± 55	*Ibid*, p 407.
DaK-151			3770 ± 130	
UW-96		Charcoal	8423 ± 78	
DaK			8350 ± 180	Unpub