

## U.S.D.A., Sedimentation Laboratory, Oxford, Mississippi

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
OX-1 <sup>1</sup>	162:177	10,420 ± 220			8470 B.C.
-2 <sup>2</sup>	162:177	5050 ± 130			3100 B.C.
-3 <sup>3</sup>	162:177	20,400 ± 420			18,450 B.C.
-4 <sup>4</sup>	162:177	7280 ± 140			5330 B.C.
-43 <sup>5</sup>	162:177	900 ± 120			A.D. 1050
-55	162:178	5010 ± 100			3060 B.C.
-62 <sup>6</sup>	162: 176	6.94 ± 0.05 cpm/g	110 ± 90	-14 ± 9	A.D. 1840
-65					
-67					
-82					
-69 <sup>7</sup>	162: 176	6.90 ± 0.05 cpm/g	Modern	-20 ± 10	
-78					
-80					
-84					

<sup>1</sup> W-964.<sup>2</sup> W-1073.<sup>3</sup> W-876.<sup>4</sup> Y-879.<sup>5</sup> Y-702.<sup>6</sup> Tx-43.<sup>7</sup> 107-yr old oak, cut 1964.

## University of Pennsylvania Applied Science Center for Archaeology

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
P-11	62:47	3710 ± 98			1752 B.C.
-11 <sup>1</sup>	59:185	$C_{\text{anom}} + 23.4 \pm 2.5$			
-12	60:151	9190 ± 590 <sup>s</sup>			7235 B.C.
-13	63:11	2213 ± 110			255 B.C.
-14	60:150	2880 ± 340 <sup>s</sup>			1455 B.C.
-14a	60:150	2485 ± 235 <sup>s</sup>			530 B.C.
-15a	60:150	2775 ± 315 <sup>s</sup>			820 B.C.
-16	63:4	780 ± 150 <sup>s</sup>			A.D. 1177
-17	60:150	2975 ± 345 <sup>s</sup>			1020 B.C.
-17a	60:150	2650 ± 340 <sup>s</sup>			695 B.C.
-18	60:150	1220 ± 230 <sup>s</sup>			A.D. 775
-19	60:150	7015 ± 405 <sup>s</sup>			5060 B.C.
-19a	60:150	7395 ± 495 <sup>s</sup>			5440 B.C.
-19b	60:150	7430 ± 460 <sup>s</sup>			5175 B.C.
-20	60:150	11,400 ± 800 <sup>s</sup>			9445 B.C.
-20b	60:150	11,550 ± 750 <sup>s</sup>			9595 B.C.
-24	60:150	8785 ± 575 <sup>s</sup>			6830 B.C.
-24a	60:150	8360 ± 510 <sup>s</sup>			6405 B.C.
-26	60:150	7680 ± 470 <sup>s</sup>			5725 B.C.
-26a	60:150	7905 ± 475 <sup>s</sup>			5950 B.C.
-27	60:150	12,275 ± 825 <sup>s</sup>			10,320 B.C.
-29	63:4	720 ± 200 <sup>s</sup>			A.D. 1237
-30 <sup>1</sup>	59:185	$C_{\text{anom}} + 6.9 \pm 3.8$			
-30	64a:362	2420 ± 51			470 B.C.
-31	63:4	820 ± 200 <sup>s</sup>			A.D. 1137
-32	60:150	2500 ± 260 <sup>s</sup>			545 B.C.
-32a	60:150	2890 ± 310 <sup>s</sup>			935 B.C.
-33	60:150	3270 ± 390 <sup>s</sup>			1315 B.C.
-33a	60:150	2630 ± 260 <sup>s</sup>			675 B.C.
-34	60:150	4830 ± 480 <sup>s</sup>	d		
-35	60:150	4730 ± 320 <sup>s</sup>	d		

## Radiocarbon Measurements:

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
-36	60:150	6385 ± 425 <sup>s</sup>			4430 B.C.
-37	60:151	8070 ± 500 <sup>s</sup>			6115 B.C.
-38	60:151	9220 ± 570 <sup>s</sup>			7265 B.C.
-39	60:151	11,860 ± 840 <sup>s</sup>			9905 B.C.
-40	61:922	6.40 ± 0.19cpm <sup>s</sup>			
-40a	61:922	6.34 ± 0.15cpm <sup>s</sup>			
-41	60:150	2890 ± 370 <sup>s</sup>			935 B.C.
-42,42a <sup>2</sup>	61:922	>25,000 <sup>s</sup>			
-43	60:150	2200 ± 280 <sup>s</sup>			245 B.C.
-44	60:150	2970 ± 270 <sup>s</sup>			1015 B.C.
-45	60:150	6515 ± 425 <sup>s</sup>			4560 B.C.
-46	61:922	6.63 ± 0.15cpm <sup>s</sup>			
-46a	61:922	6.89 ± 0.13cpm <sup>s</sup>			
-48	61:922	2.000			18,045 B.C.
		+00 <sup>s</sup>			
		-5000			
-49	61:922	>25,000 <sup>s</sup>			
-50,50a <sup>3</sup>	61:922	>25,000 <sup>s</sup>			
-51	61:922	>25,000 <sup>s</sup>			
-52	60:150	2860 ± 380 <sup>s</sup>			905 B.C.
-53	61:922	10,580 ± 720 <sup>s</sup>			8625 B.C.
-54	61:922	2740 ± 300 <sup>s</sup>			785 B.C.
-55	63:5	1130 ± 200 <sup>s</sup>			A.D. 827
-62	63:9	2060 ± 200 <sup>s</sup>			102 B.C.
-63	63:6	1480 ± 240 <sup>s</sup>			A.D. 477
-65	63:6	1320 ± 230 <sup>s</sup>			A.D. 637
-67	63:5	1230 ± 240 <sup>s</sup>			A.D. 727
-68	63:5	1350 ± 360 <sup>s</sup>			A.D. 607
-69	63:6	1070 ± 210 <sup>s</sup>			A.D. 887
-70	63:8	1420 ± 230 <sup>s</sup>			A.D. 537
-71	63:7	1630 ± 230			A.D. 328
-73	63:5	1430 ± 190 <sup>s</sup>			A.D. 527
-74	63:9	2183 ± 122			225 B.C.
-75	63:9	2508 ± 130			550 B.C.
-76	63:9	2632 ± 128			674 B.C.
-77	63:9	2191 ± 120			235 B.C.
-80	63:7	1398 ± 116			A.D. 560
-83	63:6	1013 ± 111			A.D. 945
-84	63:7	1296 ± 108			A.D. 662
-85	63:7	1002 ± 108			A.D. 956
-88	63:7	1231 ± 108			A.D. 727
-92	63:6	910 ± 145			A.D. 1048
-93	63:7	1700 ± 150			A.D. 258
-94	63:8	1429 ± 121			A.D. 529
-95	63:7	1641 ± 106			A.D. 317
-96	63:10	2635 ± 125			677 B.C.
-97	63:5	1146 ± 95			A.D. 812
-98	63:8	1619 ± 210	d		
-99	64:147	2660 ± 118			710 B.C.
-102	63:12	3310 ± 200 <sup>s</sup>			1353 B.C.
-103	63:12	3480 ± 200 <sup>s</sup>			1423 B.C.
-104	63:12	3000 ± 170 <sup>s</sup>			1043 B.C.
-105	63:12	4040 ± 280 <sup>s</sup>			2083 B.C.
-108	63:12	3080 ± 210 <sup>s</sup>			1123 B.C.
-111	62:49	2770 ± 130			812 B.C.
-115	62:56	2468 ± 133			510 B.C.
-116	62:56	2377 ± 110			419 B.C.
-117	62:46	1937 ± 104			A.D. 21
-118	62:56	1928 ± 105			A.D. 30
-119	62:55	1460 ± 200			A.D. 498
-120	62:55	1702 ± 103			A.D. 256

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
-120a	62:55	1226 ± 100			A.D. 732
-121	62:55	1423 ± 175			A.D. 535
-123	62:55	1817 ± 103			A.D. 141
-124	62:56	2291 ± 115			333 B.C.
-125	62:57	2386 ± 114			428 B.C.
-126	62:57	2550 ± 116			592 B.C.
-127	62:47	2701 ± 90			743 B.C.
-128	62:47	2631 ± 90			673 B.C.
-129	62:57	3240 ± 130			1282 B.C.
-130	62:50	927 ± 97			A.D. 1031
-133	62:47	2939 ± 122			981 B.C.
-133	64:147	2939 ± 122			989 B.C.
-134 <sup>1,7</sup>	59:185	$C_{anom} + 10.6 \pm 3.4$			
-134	62:47	2606 ± 117			648 B.C.
-135	62:47	2623 ± 119			665 B.C.
-135 <sup>7</sup>	59:185	See P-134	c		
-136	62:47	2690 ± 120			732 B.C.
-137	62:47	3113 ± 125			1155 B.C.
-138	63:9	1369 ± 102	d		
-139	63:9	2706 ± 118	d		
-141	62:56	2275 ± 116			317 B.C.
-142	62:56	2281 ± 113			323 B.C.
-143a	62:56	2177 ± 112			219 B.C.
-143b	62:56	2318 ± 113			360 B.C.
-144	62:56	2193 ± 111			235 B.C.
-145	62:57	2970 ± 120			1012 B.C.
-146	62:55	949 ± 98			A.D. 1009
-147	62:55	1576 ± 104			A.D. 382
-149	62:55	1707 ± 93			A.D. 251
-150	62:55	1692 ± 104			A.D. 266
-152	62:57	2101 ± 108			143 B.C.
-153	62:57	2041 ± 107			83 B.C.
-154	62:57	1847 ± 106			A.D. 111
-155	62:57	2522 ± 114			564 B.C.
-156	62:57	2962 ± 120			1004 B.C.
-157	62:50	5460 ± 160			3502 B.C.
-158	62:54	6953 ± 181			4995 B.C.
-160	62:54	1189 ± 93			A.D. 769
-161	62:54	1159 ± 122	1159 ± 122		A.D. 799
-162	62:53	619 ± 103	619 ± 103		A.D. 1339
-163	62:53	544 ± 113	544 ± 113		A.D. 1414
-164	62:52	585 ± 93	585 ± 93		A.D. 1373
-165	62:54	654 ± 93			A.D. 1308
-166	62:54	843 ± 96			A.D. 1115
-167 <sup>1</sup>	59:185	$C_{anom} + 26.5 \pm 5.5$			
-168 <sup>1</sup>	59:185	$C_{anom} + 0.4 \pm 9.4$			
-169	62:54	850 ± 95			A.D. 1108
-170	62:57	2032 ± 106			74 B.C.
-172	62:57	2040 ± 109			82 B.C.
-174	63:10	1753 ± 105			A.D. 205
-175	63:10	2244 ± 133	d		
-179	62:51	4161 ± 151			2203 B.C.
-180	62:51	4083 ± 137			2125 B.C.
-181	62:52	3106 ± 122			1148 B.C.
-183	62:52	1846 ± 106			A.D. 112
-184	62:52	2545 ± 115			587 B.C.
-185	62:50	3000 ± 120			1042 B.C.
-186	62:49	2881 ± 119			923 B.C.
-187	62:49	2765 ± 117			807 B.C.
-188	62:50	3981 ± 135			2023 B.C.
-189	62:50	3960 ± 134			2002 B.C.

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-190	62:50	3960 ± 134			2002 B.C.
-191	62:50	4021 ± 134			2063 B.C.
-192	63:10	1727 ± 105			A.D. 231
-194	62:50	4115 ± 136			2157 B.C.
-195	62:51	3925 ± 134			1967 B.C.
-196	62:51	4421 ± 141			2463 B.C.
-198	62:50	3083 ± 122			1125 B.C.
-199	62:51	4400 ± 142			2442 B.C.
-200	62:53	3457 ± 127			1499 B.C.
-201	62:53	3492 ± 128			1534 B.C.
-202	62:52	3503 ± 128			1545 B.C.
-203	63:10	2646 ± 177			688 B.C.
-204	62:52	3449 ± 127			1491 B.C.
-205	62:52	3294 ± 125			1336 B.C.
-206	62:49	1926 ± 92			A.D. 32
-207	63:11	3958 ± 168			2000 B.C.
-208	63:11	3560 ± 123	d		
-209	63:11	3906 ± 133			948 B.C.
-210	63:11	2898 ± 136	d		
-211	63:11	2354 ± 135	d		
-212	63:11	2404 ± 137	d		
-213	63:11	2910 ± 129			952 B.C.
-214	62:48	4447 ± 150			2489 B.C.
-215	62:48	4594 ± 91			2636 B.C.
-216	62:48	4082 ± 102			2124 B.C.
-217	62:57	1960 ± 90			2 B.C.
-218	64:148	2900 ± 51			950 B.C.
-220	64:148	2750 ± 49			800 B.C.
-221	64:147	2660 ± 62			710 B.C.
-222 <sup>1</sup>	59:185	C <sub>anom</sub> 0 ± 4.5			
-222	64:147	2480 ± 48			530 B.C.
-223	64:148	2830 ± 45			880 B.C.
-225	63:8	1651 ± 130			A.D. 307
-226 <sup>1</sup>	59:185	C <sub>anom</sub> + 10.4 ± 4.6			
-227 <sup>1</sup>	59:185	C <sub>anom</sub> + 22.3 ± 4.6			
-227	62:47	3055 ± 91			1097 B.C.
-228	63:10	3208 ± 156	d		
-229	64:153	1490 ± 85			A.D. 460
-230	64:153	1300 ± 93			A.D. 650
-232	64:153	1260 ± 49			A.D. 690
-234	64:153	1260 ± 56			A.D. 690
-235	64:153	1150 ± 44			A.D. 800
-236	64:153	1250 ± 48			A.D. 700
-237	64:153	1260 ± 72			A.D. 690
-238	64:153	1200 ± 48			A.D. 750
-242	64:153	1230 ± 48			A.D. 720
-243	64:153	1220 ± 55			A.D. 730
-244	64:153	1210 ± 83			A.D. 740
-245	64:153	1180 ± 79			A.D. 770
-247	64:153	1270 ± 49			A.D. 680
-248	64:154	1190 ± 47			A.D. 760
-249	64:154	1210 ± 48			A.D. 740
-250	108:88	2740 ± 79			790 B.C.
-251	64:153	1260 ± 110			A.D. 690
-254	64:150	3450 ± 62			1500 B.C.
-256	64:147	2510 ± 61			560 B.C.
-257	64:147	2120 ± 59			170 B.C.
-259 <sup>1</sup>	59:185	C <sub>anom</sub> + 5.9 ± 5.5			
-261	108:99	1263 ± 54			A.D. 687
-262	108:99	1032 ± 54			A.D. 918
-268 <sup>1</sup>	59:185	C <sub>anom</sub> + 11.4 ± 5.4			

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-269	108:100	771 ± 51			A.D. 1179
-270	64:151	3340 ± 51			1390 B.C.
-272 <sup>1</sup>	59:185	$C_{\text{anom}} - 5.0 \pm 4.1$			
-273	64:152	3980 ± 97			2030 B.C.
-274 <sup>1</sup>	59:185	$C_{\text{anom}} - 1.3 \pm 12.2$			
-275 <sup>1, 7</sup>	59:185	$C_{\text{anom}} + 10.6 \pm 3.4$			
-275	64:146	2560 ± 60			610 B.C.
-278	64:155	1150 ± 47			A.D. 800
-279	64:156	1180 ± 55			A.D. 770
-281	64:156	1530 ± 52			A.D. 420
-282	64:154	1310 ± 44			A.D. 640
-283 <sup>1</sup>	59:185	$C_{\text{anom}} - 5.9 \pm 5.2$			
-284	64:156	1550 ± 58			A.D. 400
-285	64:154	1970 ± 44			20 B.C.
-286	64:155	2100 ± 45			150 B.C.
-287	64:155	2000 ± 63			50 B.C.
-288	64:155	2090 ± 55			140 B.C.
-289	64:155	2040 ± 57			90 B.C.
-292	64:152	920 ± 44			A.D. 1030
-293	64:154	1340 ± 57			A.D. 610
-294	64:156	1350 ± 52			A.D. 600
-295	64:156	1740 ± 50			A.D. 210
-296	64:156	1720 ± 61			A.D. 230
-297	64:146	4690 ± 62			2740 B.C.
-298	64:146	4960 ± 58			3010 B.C.
-299	64:150	3750 ± 97			1800 B.C.
-300	64:150	3870 ± 61			1920 B.C.
-303a	64:150	3750 ± 112			1800 B.C.
-304	64:144	>42,200			
-306	64:149	4450 ± 75			2500 B.C.
-307	64:149	4440 ± 64			2490 B.C.
-308	64:158	3750 ± 85			1800 B.C.
-309	64:158	3870 ± 85			1920 B.C.
-311	64:158	4050 ± 85			2100 B.C.
-312	64:149	3840 ± 72			1890 B.C.
-313a	64:145	7350 ± 85			5400 B.C.
-314	64:145	7340 ± 94			5390 B.C.
-315	64:146	6990 ± 121			5040 B.C.
-316	64:146	7170 ± 134			5220 B.C.
-317	64:149	4210 ± 64			2260 B.C.
-318	64:149	4070 ± 72			2120 B.C.
-319	64:150	3980 ± 66			2030 B.C.
-320	64:150	3930 ± 65			1980 B.C.
-321	64:149	3940 ± 68			1990 B.C.
-322	108:87	2857 ± 54			907 B.C.
-323	108:87	2858 ± 45			908 B.C.
-325 <sup>4</sup>	63:8	1461 ± 65			A.D. 497
-326	64:151	3450 ± 65			1500 B.C.
-328	64:151	3220 ± 64			1270 B.C.
-329	64:151	3260 ± 63			1310 B.C.
-330	64:151	3360 ± 50			1410 B.C.
-332	64:151	3140 ± 61			1190 B.C.
-337	64:151	3030 ± 61			1080 B.C.
-340	64:151	3320 ± 57			1370 B.C.
-341	64:151	3010 ± 56			1060 B.C.
-343	64:157	1210 ± 54			A.D. 740
-344	64:157	1650 ± 48			A.D. 300
-345	64:157	8060 ± 100			6110 B.C.
-346	163:181	$\Delta + 4.2 \pm 4.5$		12.13 ± 4.10	
-347	108:101	782 ± 53			A.D. 1168
-352	64:147	2390 ± 61			440 B.C.

## Radiocarbon Measurements:

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-353	64:148	2910 ± 53			960 B.C.
-354	64:144	1520 ± 55			A.D. 430
-356	64:148	2920 ± 45			970 B.C.
-358	64:147	2890 ± 87			940 B.C.
-363	64:146	2720 ± 54			770 B.C.
-370	108:100	1187 ± 48			A.D. 763
-372	108:100	1864 ± 58			A.D. 86
-373	108:100	800 ± 47			A.D. 1150
-375	163:181	$\Delta - 5.9 \pm 3.2$		2.00 ± 2.60	
-376	108:84	11,166 ± 107			9216 B.C.
-377	108:84	9582 ± 89			7632 B.C.
-378	108:84	9775 ± 110			7825 B.C.
-379	108:84	9655 ± 84			7705 B.C.
-380	108:84	8610 ± 75			6660 B.C.
-381	108:84	8658 ± 101			6708 B.C.
-382	108:84	8956 ± 103			7006 B.C.
-384	108:83	3079 ± 64			1129 B.C.
-387	163:181	$\Delta - 0.1 \pm 4.4$		7.67 ± 4.00	
-389	108:83	6134 ± 173			4184 B.C.
-396a	163:181	$\Delta + 5.0 \pm 5.5$		13.90 ± 5.14	
-397a	163:181	$\Delta - 4.8 \pm 4.5$		3.00 ± 4.06	
-398	108:89	2473 ± 54			523 B.C.
-399	108:88	2521 ± 54			571 B.C.
-406	108:100	1525 ± 58			A.D. 425
-407	163:183	4042 ± 69			2092 B.C.
-409	108:94	4175 ± 223			2225 B.C.
-411	163:183	3672 ± 66			1722 B.C.
-413	163:183	3747 ± 67			1797 B.C.
-415	163:185	3237 ± 55			1287 B.C.
-416	163:183	169 ± 47			A.D. 1781
-418	108:86	2899 ± 49			949 B.C.
-419	108:86	2880 ± 45			930 B.C.
-420	108:89	2347 ± 54			397 B.C.
-421	108:86	2913 ± 56			963 B.C.
-423	108:86	2896 ± 51			946 B.C.
-424	108:87	2816 ± 55			866 B.C.
-425	108:87	2872 ± 62			922 B.C.
-426	108:82	>41,000			
-427	163:185	2347 ± 48			397 B.C.
-428	163:185	1594 ± 40			A.D. 356
-429	163:185	2832 ± 44			882 B.C.
-430	163:183	2329 ± 46			379 B.C.
-431	163:183	656 ± 40			A.D. 1294
-433	163:183	627 ± 56			A.D. 1323
-434	163:183	3938 ± 51			1988 B.C.
-435	163:183	3767 ± 56			1817 B.C.
-436	163:183	2277 ± 42			327 B.C.
-437	108:87	2841 ± 63			891 B.C.
-438	108:90	5990 ± 81			4040 B.C.
-439	108:88	2811 ± 64			861 B.C.
-440	108:85	2864 ± 64			914 B.C.
-442	108:91	5815 ± 83			3865 B.C.
-448	163:182	$\Delta + 14.8 \pm 5.6$		23.19 ± 4.09	
-449	163:182	$\Delta + 21.8 \pm 5.6$		30.25 ± 4.09	
-450	163:182	$\Delta + 23.0 \pm 5.2$		31.47 ± 3.56	
-451	163:183	2450 ± 47			
-453	163:183	601 ± 48			500 B.C.
-455	108:90	7269 ± 86			A.D. 1349
-456	108:94	1583 ± 58			5319 B.C.
-457	108:83	7184 ± 84			A.D. 367
-458	108:83	7686 ± 112			5234 B.C. 5736 B.C.

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
-459	108:83	8142 ± 100			6192 B.C.
-460	108:83	8364 ± 101			6414 B.C.
-461	108:83	2991 ± 53			1041 B.C.
-462	108:83	3140 ± 151			1140 B.C.
-463	108:85	2643 ± 63			693 B.C.
-464	108:85	2690 ± 62			740 B.C.
-465	108:92	7605 ± 96			5655 B.C.
-466	108:91	7956 ± 98			6006 B.C.
-467	108:92	7644 ± 89			5694 B.C.
-468	108:85	4939 ± 75			2989 B.C.
-469	108:85	5169 ± 64			3219 B.C.
-472	108:92	3157 ± 68			1207 B.C.
-473	108:92	3184 ± 68			1234 B.C.
-474	108:92	3099 ± 185			2149 B.C.
-475	108:93	3455 ± 70			1505 B.C.
-476	108:93	4125 ± 69			2175 B.C.
-478	108:94	3740 ± 64			1790 B.C.
-481	108:92	3879 ± 72			1929 B.C.
-482	108:96	3306 ± 61			1356 B.C.
-483	108:96	3344 ± 61			1394 B.C.
-485	108:96	3271 ± 48			1321 B.C.
-486	108:96	3373 ± 58			1423 B.C.
-487	108:96	3284 ± 61			1334 B.C.
-488	108:96	3361 ± 70			1411 B.C.
-489	108:96	3424 ± 62			1474 B.C.
-491	163:182	$\Delta + 18.4 \pm 5.6$		25.60 ± 4.09	
-492	163:183	2448 ± 47			498 B.C.
-493	163:183	3002 ± 57			1052 B.C.
-494	163:181	$\Delta + 11.6 \pm 4.5$		17.92 ± 4.12	
-495	163:181	$\Delta + 10.6 \pm 4.4$		17.95 ± 4.02	
-496	163:181	$\Delta - 4.9 \pm 3.7$		2.97 ± 3.21	
-497	163:181	$\Delta - 0.1 \pm 4.4$		9.05 ± 4.03	
-498	163:181	$\Delta + 4.8 \pm 4.5$		12.73 ± 4.06	
-499	163:181	$\Delta + 9.6 \pm 5.2$		15.10 ± 4.83	
-500	108:96	3496 ± 56			1546 B.C.
-502	108:90	6895 ± 83			4945 B.C.
-503	108:90	5986 ± 87			4036 B.C.
-504	108:89	5518 ± 81			3568 B.C.
-505	108:89	5638 ± 85			3688 B.C.
-506	108:91	1773 ± 62			A.D. 177
-507	108:91	2850 ± 59			900 B.C.
-508	108:91	3996 ± 242			2046 B.C.
-509	108:91	3917 ± 156			1967 B.C.
-511	108:99	1345 ± 118			605 B.C.
-512	108:97	1058 ± 52			A.D. 892
-513	108:98	1968 ± 62			18 B.C.
-515	108:97	2014 ± 62			64 B.C.
-516	108:98	2408 ± 214			458 B.C.
-517	108:98	2302 ± 125			352 B.C.
-518	108:98	2195 ± 64			245 B.C.
-519	108:96	9028 ± 120			7078 B.C.
-521	108:96	9720 ± 128			7770 B.C.
-522	108:94	4378 ± 196			2428 B.C.
-523	108:94	4029 ± 74			2079 B.C.
-524	108:93	5474 ± 83			3524 B.C.
-525	108:93	3193 ± 69			1243 B.C.
-526	108:93	3136 ± 68			1186 B.C.
-527	108:93	2515 ± 58			565 B.C.
-528	108:93	2878 ± 65			928 B.C.
-529	108:93	3868 ± 72			1918 B.C.
-530	108:85	4672 ± 74			2722 B.C.

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
-531	108:95	295 ± 192			A.D. 1655
-532	108:95	1653 ± 61			A.D. 297
-533	108:95	778 ± 133			A.D. 1172
-534	108:95	1866 ± 62			A.D. 84
-536	164:198	4056 ± 73			2106 B.C.
-538	164:198	4071 ± 73			2121 B.C.
-540	108:97	4490 ± 136			2540 B.C.
-541	108:97	4487 ± 76			2537 B.C.
-543a	163:181	$\Delta + 5.1 \pm 3.6$		16.20 ± 3.09	
-545	163:181	$\Delta + 16.5 \pm 3.9$		24.52 ± 3.42	
-549	163:181	$\Delta - 4.4 \pm 4.9$		3.48 ± 4.51	
-551	163:181	$\Delta + 1.7 \pm 4.3$		9.59 ± 3.81	
-558 <sup>s</sup>	108:97	1318 ± 59	c		A.D. 632
-576	108:88	2681 ± 69			731 B.C.
-577	108:88	2779 ± 69			829 B.C.
-579	164:197	2602 ± 45			652 B.C.
-582	108:89	2294 ± 60			344 B.C.
-584	164:188	7027 ± 83			5077 B.C.
-585	164:188	8064 ± 78			6114 B.C.
-586	164:198	3905 ± 67			1955 B.C.
-587	164:198	4307 ± 69			2357 B.C.
-588 <sup>s</sup>	164:198	4371 ± 69			2421 B.C.
-589b	163:181	$\Delta - 5.2 \pm 4.6$		3.59 ± 4.18	
-600	163:183	4006 ± 52			2056 B.C.
-602	163:183	3106 ± 42			1156 B.C.
-603	163:185	1952 ± 36			2 B.C.
-604	163:185	2602 ± 35			652 B.C.
-605	163:185	3225 ± 47			1275 B.C.
-606	163:181	$\Delta - 4.0 \pm 4.5$		1.43 ± 4.13	
-607	163:181	$\Delta - 9.4 \pm 4.4$		-2.15 ± 4.00	
-608	163:181	$\Delta - 9.9 \pm 5.3$		-2.06 ± 4.93	
-609	163:181	$\Delta + 0.1 \pm 5.3$		5.48 ± 4.97	
-610	163:181	$\Delta + 3.7 \pm 5.5$		7.74 ± 5.21	
-630	163:181	$\Delta + 3.8 \pm 4.6$		12.67 ± 4.22	
-631	163:181	$\Delta + 7.9 \pm 4.6$		16.89 ± 4.21	
-632	163:181	$\Delta - 9.3 \pm 6.1$		-1.53 ± 5.74	
-633	163:181	$\Delta + 4.1 \pm 4.6$		9.55 ± 4.22	
-634	163:181	$\Delta - 0.3 \pm 4.6$		8.55 ± 4.19	
-636	163:182	$\Delta - 0.1 \pm 5.6$		8.78 ± 4.06	
-638a	163:181	$\Delta - 0.7 \pm 4.8$		7.20 ± 4.40	
-643	163:181	$\Delta + 2.6 \pm 6.6$		9.84 ± 6.29	
-644	163:181	$\Delta + 5.1 \pm 5.0$		12.96 ± 4.72	
-645	163:181	$\Delta - 1.1 \pm 6.1$		6.71 ± 5.83	
-646	163:181	$\Delta + 1.6 \pm 5.4$		12.33 ± 5.09	
-647	163:181	$\Delta + 20.4 \pm 4.5$		28.38 ± 4.45	
-656	163:182	$\Delta + 14.0 \pm 5.9$		24.16 ± 4.46	
-661	163:182	$\Delta + 28.9 \pm 5.7$		36.23 ± 4.18	
-663	163:182	$\Delta + 22.8 \pm 5.7$		28.78 ± 4.19	
-665	163:182	$\Delta + 23.1 \pm 5.7$		42.81 ± 4.25	
-667	163:182	$\Delta + 22.7 \pm 5.6$		28.18 ± 4.09	
-668	163:182	$\Delta + 23.4 \pm 5.3$		32.36 ± 3.73	
-700	163:181	$\Delta + 3.7 \pm 4.5$		12.80 ± 4.09	
-701	163:181	$\Delta - 4.2 \pm 4.5$		4.68 ± 4.11	
-702	163:181	$\Delta + 4.6 \pm 4.8$		15.39 ± 4.37	
-703	163:181	$\Delta - 4.9 \pm 4.3$		2.15 ± 3.88	
-712	164:197	2929 ± 66			979 B.C.
-714	164:196	3045 ± 66			1095 B.C.
-715	164:197	2888 ± 127			938 B.C.
-716	164:197	2964 ± 59			1014 B.C.
-717	164:196	3111 ± 59			1161 B.C.
-718	164:196	3087 ± 59			1137 B.C.



Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta$ C <sup>14</sup> , ‰	A.D./B.C. date
-720	164:196	2981 ± 58			1031 B.C.
-721	164:196	6195 ± 70			4245 B.C.
-722	164:196	6126 ± 70			4176 B.C.
-723	164:197	3053 ± 59			1103 B.C.
-724	164:190	3959 ± 59			2009 B.C.
-725	164:195	4550 ± 60			2600 B.C.
-726	164:196	2980 ± 50			1030 B.C.
-738	163:182	$\Delta + 0.8 \pm 6.3$		4.26 ± 5.20	
-760	164:193	2970 ± 50			1020 B.C.
-769	164:192	7505 ± 93			5555 B.C.
-770	164:192	7912 ± 94			5962 B.C.
-772	164:192	7572 ± 91			5622 B.C.
-775	164:192	8037 ± 96			6087 B.C.
-776	164:192	7640 ± 91			5690 B.C.
-777	164:191	7704 ± 91			5754 B.C.
-778	164:191	7538 ± 89			5588 B.C.
-779	164:191	8190 ± 99			6240 B.C.
-780	163:182	$\Delta + 28.4 \pm 5.7$		35.66 ± 4.11	
-781	164:192	7524 ± 90			5574 B.C.
-782	164:191	8092 ± 98			6142 B.C.
-785	163:184	2147 ± 46	$\Delta + 0.8 \pm 4.5$	11.01 ± 4.34	197 B.C.
-786	163:184	1576 ± 43	$\Delta + 6.6 \pm 4.4$	13.77 ± 4.22	A.D. 374
-787	163:184	1357 ± 66	$\Delta - 8.2 \pm 7.1$	0.78 ± 6.96	A.D. 607
-788	164:194	2691 ± 47			741 B.C.
-789	164:193	6980 ± 79			5030 B.C.
-790	164:193	6830 ± 78			4880 B.C.
-791	164:193	6755 ± 80			4805 B.C.
-792	164:193	6670 ± 76			4720 B.C.
-793	164:193	6254 ± 78			4304 B.C.
-794	164:193	7033 ± 89			5083 B.C.
-795	164:193	6832 ± 78			4882 B.C.
-796	164:192	7521 ± 77			5571 B.C.
-797	164:192	7629 ± 90			5679 B.C.
-798	164:188	4145 ± 59			2195 B.C.
-799	164:189	8472 ± 102			6522 B.C.
-800	164:189	4157 ± 62			2207 B.C.
-801	164:189	4590 ± 65			2640 B.C.
-803	164:188	4221 ± 53			2271 B.C.
-804	164:189	4095 ± 52			2145 B.C.
-805	164:189	4006 ± 62			2056 B.C.
-806	164:189	4345 ± 66			2395 B.C.
-807	164:189	4090 ± 64			2140 B.C.
-809	164:189	3945 ± 62			1995 B.C.
-810	164:188	4074 ± 64			2124 B.C.
-811	163:184	2367 ± 46	$\Delta 13.9 \pm 4.4$	23.08 ± 4.25	417 B.C.
-812	163:181	$\Delta - 3.2 \pm 4.1$		4.92 ± 3.73	
-813	163:181	$\Delta - 2.4 \pm 5.1$		5.46 ± 4.73	
-815	163:182	$\Delta - 3.1 \pm 5.6$		4.11 ± 4.08	
-818	163:182	$\Delta + 2.8 \pm 4.5$		8.25 ± 4.27	
-819	164:189	4272 ± 65			2322 B.C.
-820	164:189	4090 ± 62			2140 B.C.
-821	163:182	$\Delta - 3.2 \pm 4.6$		10.50 ± 4.33	
-824	164:191	3744 ± 61			1794 B.C.
-825	164:191	4540 ± 56			2590 B.C.
-826	164:191	4200 ± 58			2250 B.C.
-827	164:192	7579 ± 86			5629 B.C.
-829	164:195	2596 ± 56			646 B.C.
-830	164:195	2572 ± 59			622 B.C.
-831	164:195	2542 ± 46			592 B.C.
-832	164:195	2406 ± 52			456 B.C.
-833	164:195	2537 ± 52			587 B.C.

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
-834	164:195	2726 ± 157			776 B.C.
-835	164:195	2418 ± 54			468 B.C.
-836	164:195	2523 ± 53			573 B.C.
-837	164:194	4501 ± 65			2551 B.C.
-838	164:194	3164 ± 48			1214 B.C.
-839	164:194	3148 ± 119			1198 B.C.
-840	164:194	3231 ± 57			1281 B.C.
-842	164:195	3154 ± 56			1204 B.C.
-843a	164:194	3505 ± 59			1555 B.C.
-844	164:190	3291 ± 57			1341 B.C.
-855	164:190	7456 ± 73			5506 B.C.
-856	164:190	7299 ± 86			5349 B.C.
-857	164:190	6802 ± 82			4858 B.C.
-872	164:188	2361 ± 54			411 B.C.
-873	164:187	2486 ± 54			536 B.C.
-875	164:187	2485 ± 44			535 B.C.
-941	164:194	3073 ± 48			1123 B.C.
Tikal I <sup>5</sup>	59:185 <sup>1</sup>	C <sub>anom</sub> - 2.4 ± 2.2			A.D. 684 ± 21
Tikal IV <sup>9</sup>	59:185 <sup>1</sup>	C <sub>anom</sub> 0 ± 1.6			A.D. 746 ± 16

<sup>1</sup> C<sup>14</sup> ages not computed for known-age samples in ref. 59; C<sub>anom</sub> is age-corrected  $\delta C^{14}$ .

<sup>2</sup> W-224.

<sup>3</sup> W-225, W-226.

<sup>4</sup> C-505.

<sup>5</sup> Combined from P-230, 232, 234, 247, and 251. Tikal I

<sup>6</sup> Combined from P-235, 236, 237, 242, 243, 244, 245, 248, and 249. Tikal IV

<sup>7</sup> P-134 and 275 combined in ref. 59, where P-134 is listed by mistake as P-135.

<sup>8</sup> P-558 was published as P-588 (ref. 108).

\* Reference standard has always been age-corrected pre-industrial wood, not significantly different from 95% NBS oxalic acid; but B.P. dates published in early lists (Pennsylvania I through IV) were not computed from A.D. 1950. A.D./B.C. dates in Column 6 have been adjusted for this small difference (9 yr at most), but corrected dates B.P. have not been entered in Column 4.

### Pisa, Laboratoria de Geologia Nucleare dell'Universita<sup>1</sup>

Laboratory number	Published reference	Original date or other value	Corrected date or other value	$\delta C^{14}, \text{‰}$	A.D./B.C. date
Pi-1	69:103	2318 ± 105			368 B.C.
-3A	68:108	1863 ± 135			A.D. 87
-3B	68:108	2160 ± 145			210 B.C.
-4	68:106	5534 ± 144			3584 B.C.
-5	68:108	2908 ± 153			958 B.C.
-6	68:108	10,178 ± 400			8228 B.C.
-7A	68:109	26,364 ± 1405			24,414 B.C.
-7B	68:109	6892 ± 260			4942 B.C.
-10	68:106	8619 ± 200			6669 B.C.
-13	68:110	3767 ± 115			1817 B.C.
-15	68:107	3475 ± 86			1525 B.C.
-15A	68:107	3470 ± 120			1520 B.B.
-15B	68:107	3480 ± 120			1530 B.C.
-18	68:107	2176 ± 105			226 B.C.
-19	68:109	892 ± 100			A.D. 1058
-20	68:109	1968 ± 110			18 B.C.
-21	68:110	6659 ± 153			4709 B.C.
-22	68:108	1847 ± 105			A.D. 103
-23	68:106	12,619 ± 410			10,669 B.C.
-25	68:107	3333 ± 115			1383 B.C.
-26	68:107	3100 ± 113			1150 B.C.
-28	68:106	5398 ± 145			3448 B.C.