

UNIVERSITY OF GEORGIA RADIOCARBON DATES VI

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The Geochronology Laboratory has recently changed its name to the Center for Applied Isotope Studies to reflect its steady and diversified expansion since its conception in 1969. Initially the laboratory was set up to offer age dating services to personnel at the University of Georgia. Subsequently, the laboratory expanded its activities so as to enable it to participate in studies of an applied and basic research nature.

The new name change will in no way alter the existing radiocarbon dating program. The Center will continue to use the benzene method of sample preparation, liquid scintillation counting and operational procedures as reported in our last date list (R, 1976, v 18, p 362-370). Ages quoted for this date list are calculated with a 1σ counting error which includes statistical variation of sample count as well as background and standard. Modern standard used is 95% of NBS oxalic acid with a reference date of AD 1950.

ACKNOWLEDGMENTS

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SAMPLE DESCRIPTIONS

I. GEOLOGIC SAMPLES

Alabama

Tennessee-Tombigbee Waterway Survey

Shell and charcoal from floodplain deposits of Tombigbee R in which were found remains of Pleistocene mammals. Samples coll in 1974-75 by C B Curren, Jr, and subm by C W Copeland, Jr, Geol Survey Alabama, Univ Alabama.

UGa-1073. Bogue Chitto Creek 6375 ± 95

Shell assoc with vertebrate specimens typical of Pleistocene epoch in yellow-orange clayey sand deposits along creek, Pickens Co (33° 5' 39" N, 88° 16' 56" W).

UGa-1074. Ringo Bluff 475 ± 70

Wood from left bank bluff of Tombigbee R, Pickens Co, in near-surface deposit of blue-gray sand and clay of late Pleistocene—early Holocene age (33° 9' 44" N, 88° 16' 24" W). *Comment* (CWC, Jr): date indicated sample was probably tree root that penetrated deposit.

UGa-1075. Tombigbee R 8425 ± 145

Wood from Pickens Co deposit of blue-gray sand and clay deposit of late Pleistocene—early Holocene age occurring on left bank of Tombigbee R (33° 7' 42" N, 88° 16' 26" W).

UGa-1076. Pickensville 2120 ± 70

Wood from deposit of blue-gray sand and clay of late Pleistocene—early Holocene age on right bank of diversion channel at dam construction site on Tombigbee R at Pickensville, Pickens Co (33° 12' 34" N, 88° 17' 22" W). Date indicates more recent intrusion into deposit.

UGa-1105. Pickensville 4320 ± 75

Carbonized leaves from deposit of blue-gray sand and clay and leaves occurring as lens in Holocene gravelly sand that forms present river bank on right side of diversion channel at dam construction site at Pickensville (33° 11' 29" N, 88° 17' 21" W.) *Comment* (CWC): seems to be more recent deposit.

UGa-1077. Deposit Station 8440 ± 105

Wood from deposit of blue-gray sand and clay of late Pleistocene—early Holocene age exposed on right bank of Tombigbee R below Demopolis Lock and Dam, Sumter Co (32° 31' 22" N, 87° 53' 4" W).

UGa-1100. Deposit Station 8365 ± 110

Wood from location near UGa-1077.

UGa-902. Deposit Station 5515 ± 105

Nut hulls, charcoal, bone fragments from lens of deposit near UGa-1077.

UGa-1104. Deposit Station 11,730 ± 135

Wood from near UGa-1077.

UGa-1099. Gainesville Dam 9590 ± 110

Wood from deposit of blue-gray sand and clay of late Pleistocene—early Holocene age exposed in excavation of Gainesville Dam on Tombigbee R, Sumter Co (32° 50' 39" N, 88° 9' 4" W).

UGa-901. Gainesville Dam 8045 ± 120

Wood from similar strata near UGa-1099.

*Georgia***Sapelo Island series**

The following dates were made on shell samples as part of project to study age and growth of this Georgia coastal island. All were taken .8 to 1m below ground surface in a gray, medium-to-coarse-grained sand layer and consisted of *Donax*, *Tellina*, *Arca*, *Polinices* and other beach fauna, both whole and broken. Georgia I. samples coll 1969 and dated by Darwin Chapman, Dept Geol, Univ Georgia, Athens.

UGa-23. Shell	995 ± 85
Coll 45m S of Beach Rd and 27m E of Lighthouse Rd (31° 23' 20" N, 81° 16' 28" W), S end of island.	
UGa-24. Shell	495 ± 120
27m S of UGa-23.	
UGa-25. Shell	455 ± 80
27m S of UGa-24.	
UGa-48. Shell	795 ± 40
27m S of UGa-25.	
UGa-50. Shell	4820 ± 180
27m S of UGa-48.	
UGa-59. Shell	2720 ± 215
27m S of UGa-50.	
UGa-63. Shell	2400 ± 130
27m S of UGa-59.	
UGa-67. Shell	2355 ± 130
27m S of UGa-63.	
UGa-71. Shell	2365 ± 90
27m S of UGa-67.	
UGa-76. Shell	2910 ± 85
27m S of UGa-71.	
UGa-84. Shell	155 ± 140
27m S of UGa-76.	
UGa-86. Shell	715 ± 120
27m S of UGa-84.	
UGa-94. Shell	1000 ± 70
27m S of UGa-86.	

General Comment: in general, the older, the more elevated the sample above MLW.

Blackbeard Island series

Blackbeard I. lies NE of Sapelo I. and is separated from it by Blackbeard Creek. The following shell samples were taken as above.

UGa-26. Shell	3960 ± 200
Coll 36m N of artesian well and 26m S of N-most beach MHW mark.	
UGa-96. Shell	3055 ± 150
26m SE of UGa-26.	

UGa-118. Shell **1710 ± 225**
78m SE of UGa-96.

UGa-119. Shell **Modern**
26m SE of UGa-118. *Comment*: from area touched by storm action.

UGa-115. Shell **3260 ± 110**
26m SE of UGa-119.

UGa-101. Cabretta Salt Marsh shell **1025 ± 300**
From marsh on E Cabretta I. which is a small island E of Sapelo and separated by a tidal creek.

South Carolina

Titi Peat Bog series

Peat samples from Titi #3 core at 32° 39' N, 80° 27' W, U S Peat Corp, Fenwich 7 1/2 Quad, South Carolina. Subm by A D Cohen, Dept Geol, Univ South Carolina, Columbia.

UGa-1319. 170 to 180cm **3340 ± 65**

UGa-1320. 244 to 252cm **4040 ± 100**

II. ARCHAEOLOGIC SAMPLES

Alabama

UGa-1235. La Grange Bluff Shelter site **2035 ± 150**
Charcoal from Feature 20, Zone A, 1 Ct 90, Colbert Co (34° 39' N, 87° 33' W), pit of Late Woodland McKelvey series ceramics. Date slightly older than expected.

UGa-1127. White's Bottoms **1925 ± 135**
Charcoal from Feature 3, storage pit of 1 Ra 29, Randolph Co on Little Tallapoosa R (33° 20' N, 85° 30' W). Middle Woodland assoc.
Above samples subm by D L DeJarnette, Mound State Mus, Moundville, Alabama, as part of Rother L Harris Reservoir Archaeol Evaluation.

Alaska

Mt Hayes 111 site series

Tangle Lakes dist, central Alaska (63° 2' N, 146° 4' W). Samples subm by F H West.

UGa-572. Charcoal **10,150 ± 280**

Sample from B soil horizon of paleosol which occurs widely in this region. Artifacts from Denali Complex period found 2 to 3cm above, but occur in this horizon elsewhere in excavation. Coll 1973; subm by F H West, Dept Anthropol, Univ Wisconsin, Madison. *Comment* (FHW): date corroborates dating by typologic means.

UGa-927. Charcoal **8155 ± 265**

Sample from horizon containing Denali Complex material.

UGa-974. Charcoal **6735 ± 390**

Sample from some rather large pieces of charcoal in buried A horizon. Squirrel burrow was uncovered 10cm or less from sample. *Comment* (FHW): date is younger than Denali Complex materials as would be expected from stratigraphy older than dates (SI-2171, unpub) previously run on humic acid of buried A horizon. At present, dating is not clear.

Mt Hayes 72 site series

Tangle Lakes dist, central Alaska (63° 3' N, 146° 3' W). Samples subm by F H West.

UGa-530. Charcoal **5480 ± 300**

Sample coll near upper surface of A horizon of buried paleosol. *Comment* (FHW): sample stratigraphically overlay cultural deposit and thus age is only minimum.

UGa-531. Charcoal **4160 ± 175**

Sample from test square, scattered between A and B horizons. *Comment* (FHW): charcoal veins were traced to surface and possibly contamination from roots occurred.

Mt Hayes 149 site series

Site in Tangle Lakes dist, central Alaska (63° 1' N, 146° 3' W).

UGa-941. Charcoal **9060 ± 425**

Small flakes of charcoal occurring in B horizon of buried soil, where most artifacts were recovered. *Comment* (FHW): nearby "hearth" provided too little charcoal to date, but material coll from surroundings may be contemporaneous and date Denali Complex artifacts.

UGa-950. Charcoal **4310 ± 150**

Sample from A horizon of buried soil. A few artifacts occur in A layer but were probably pushed upward by frost action. Artifact assemblage belongs to Denali Complex. *Comment* (FHW): date may be of burial of lower soil horizon, and is close to several other dates on humic acid from A horizon from Mt Hayes 111 site; see Hadleigh-West (1967), and West (1975).

Portage site series

Tangle Lakes dist, central Alaska (63° 1' N, 146° 3' 30" W), on storm ridge of Landlock Lake. Samples subm by F H West.

UGa-914. Charcoal **1380 ± 125**

From middle level of what appears to be 3 component site, assoc with a side scraper.

UGa-915. Charcoal 2025 ± 225

From area of site where middle and lower levels are difficult to differentiate. Coll 1970.

UGa-519. Charcoal 2095 ± 225

Sample from lowest level, assoc with a few fragments of projectile points, including a tip and a base, bone fragments, and burned rocks.

General Comment (FHW): site appears to provide link between proto-historic sites of area and earlier ones. Differentiation, of middle and lower layers, is emerging. UCLA-1875A (1050 ± 90, unpub) is from same area as UGa-914.

UGa-527. He 1, Teklanika River 3820 ± 115

Charcoal from A horizon of test pit of site near Teklanika R, Mt McKinley Natl Park (63° 40' 35" N, 149° 45' 20" W). A horizon is reddish at some locations in site, indicating possible burning. Coll 1971. *Comment* (FHW): previously run dates on site have clustered ca 3500 BP. Cultural material, representing Denali complex core and blade industry, resembles sites dated from 8 to 10,000 yr ago. Possibly, these assays date natural burn. See UGa-253 (R, 1974, v 16, p 131), Hadleigh-West (1967), and West (1962).

UGa-529. Tm 1, Charcoal 5690 ± 210

From top of lowest cultural layer of test pit of site (63° 10' N, 148° 10' W) on ridge overlooking a salmon stream flowing between Stephen L and Murder L in S central Alaska. Assoc with side-notched projectile point. Coll 1971; subm by F H West.

Long Lake site series

Anchorage quad (61° 50' N, 148° 14' W).

UGa-949. Charcoal 6605 ± 115

Coll 1973 from small flakes in lower portion of B horizon. Artifacts were assoc with sample.

UGa-973. Charcoal 2930 ± 370

Coll 1973 from small flakes in upper portion of B horizon where artifacts were also found.

General Comment (FHW): site yielded material of core and blade industry. Although material has not yet been extensively studied, it is believed that site is Upper Palaeolithic which first appeared in Alaska in late Pleistocene and probably extended some millennia into Holocene. UGa-949 date is reasonable for encountered assemblage of artifacts, but UGa-973 date is perplexing for what seems to be single component site. Hopefully, further assays will clarify situation.

UGa-634. Minchumina site 2365 ± 140

Charcoal from site in central Alaska (64° 54' N, 152° 6' 30" W), Denali Complex assoc. Coll and subm by C E Holmes, Lab Anthropol, Alaska Methodist Univ, Anchorage.

Arkansas

UGa-1263. 3 Cw 151 **485 ± 120**

Charcoal from Ozarks Bluffshelter in Crawford Co (35° 42' 0" N, 94° 18' 52" W). From depth 78cm in test pit, assoc with burned nut, stone flakes, and bone. Date is reasonable. Coll and subm by L M Rabb, Univ Arkansas, Fayetteville.

Colorado

Draper Cave series

Draper Cave, 5 Cr 1, is Rocky Mt foothills cave site (38° 14' 27" N, 105° 7' 34" W), in Custer Co, ca 8km SE of Hardscrabble Mt. Total fill during cave occupation: 214cm; 1 male burial, age 28 to 30, height 168cm; cause of death not determined. Subm by I K Hagar, Colorado Archaeol Soc, Denver.

UGa-736. Charcoal **3520 ± 70**

Recovered from a fire hearth in rear of cave, ca 137cm below cave floor before excavation. Lithic samples recovered at same level indicate McKean-Duncan-Hanna occupation, Middle Archaic age.

UGa-737. Charcoal **3480 ± 65**

Recovered from only burial level (71 to 76cm), 2 grids from burial and ca 1m from mouth of cave, stratigraphically indicates same Middle Archaic age for occupation.

Montrose County site**UGa-926. Charcoal** **1045 ± 60**

From deep fire pit (.4m below surface) in Roc Creek Valley, Montrose Co site, Mn 367 (38° 26' N, 108° 55' W). *Comment* (JV): date provides evidence that recovered material is of Fremont affinity.

UGa-1132. Charcoal **1190 ± 355**

Hill 1, Site Mn 517, sample from living floor of shallow (45cm) dwelling SW Uncompahgre Plateau, Weimer Ranch.

UGa-1274. Bone **870 ± 70**

Near surface find in unstratified Site 5 Mn 368, Weimer Ranch IV, Locality Battleship (38° 15' N, 108° 20' W), SW Uncompahgre Plateau. Coll and subm by Jiri Vondracek, Dept Anthropol, Metropolitan State Coll, Denver.

UGa-1046. Burke site **1620 ± 195**

Site 5 Rb 123 is on right bank of Piceance Creek ca 17.7km upstream from juncture with White R in Rio Blanco Co (39° 53' 13" N, 108° 15' 6" W), Sample from ash and charcoal concentration 155cm below datum. Agrees with UGa-1045 (R, 1976, v 18, p 364), 30cm higher in excavation. Coll by T W Stout and J L Pierson; subm by C H Jennings, Dept Anthropol, Colorado State Univ, Fort Collins.

Spring Gulch site series

5 Lr 252 Larimer Co, Livermore (40° 50' 12" N, 105° 12' 30" W) is stratified site (UGa-664, 669-673, 829, R, 1976, v 18, p 365-366) described by Kainer (1974, 1976). Samples subm by E A Morris, Lab Public Archaeol, Dept Anthropol, Colorado State Univ, Fort Collins.

UGa-1047. Feature 33 3700 ± 105

Charcoal from basin-shaped hearth filled with angular and slab sandstone fragments (Type II), found near top of stratigraphic Level V, Loc I.

UGa-1048. Feature 29 3855 ± 350

Charcoal from "surface" hearth constructed of angular and slab sandstone fragments (Type I), found in lower half of Level IV, Loc I.

UGa-1049. Feature 18 1485 ± 130

Charcoal from "surface" hearth constructed of angular and slab sandstone fragments (Type I), found in upper half of Level III, Loc I.

UGa-1050. Feature 21 935 ± 140

Charcoal from "surface" hearth constructed of angular and slab sandstone fragments (Type II), found in upper half of stratigraphic Level II, Loc I, depth 60cm.

UGa-1051. Feature 44 880 ± 180

Charcoal from "surface" hearth constructed of angular and slab sandstone fragments (Type I), found in 10 to 20cm level in Test Trench E, Loc III.

*Louisiana***Thibodaux site series**

Site 16 As 35, Assumption Parish (29° 40' 16" N, 91° 15' 53" W), extends along E bank of Bayou Boeuf from ca 1.4km N of Southern Pacific RR bridge to 0.8km S of US 90 bridge. All samples are from Test Pit I, coll and subm by Katherine Brooks and Richard Weinstein, Coastal Environments, Inc, Baton Rouge. Further discussion in Weinstein *et al* (1977).

UGa-1740. *Rangia cuneata* 515 ± 60

30 to 40cm level, upper of 4 distinct shell lenses in pit. Lenses are separated by noncultural deposits of silty clay from overbank flooding of Bayou Boeuf. *Comment* (KB&RW): age agrees with assoc ceramics of Delta Natchezan phase, especially a sherd of Maddox Engraved, var Emerald.

UGa-1741. *Rangia cuneata* 460 ± 60

40 to 50cm level, 2nd lens. *Comment* (KB&RW): date is also good for Delta Natchezan phase of coastal Louisiana, including Fatherland Incised, vars Fatherland and Bayou Goula and sherd of Plaquemine

Brushed, var Plaquemine sherds found. Date is somewhat later than anticipated for Plaquemine sherd but not terribly so, and also shows that 1st and 2nd lens are probably nearly contemporaneous.

UGa-1742. *Rangia cuneata* 975 ± 60

From 60cm level in upper 3rd lens. *Comment* (KB&RW): date is early Medora phase (early Mississippi) and helps date a Plaquemine sherd. Date is somewhat earlier than anticipated for Plaquemine but helps define early temporal range of variety.

UGa-1743. *Rangia cuneata* 1070 ± 55

Sample from level 90 to 105cm, lowest in pit, heavily compacted and containing burned shells. No ceramics of equivalent age, late Coles Creek, Bayou Ramas, were found at site and no datable sherds in this lens.

Massachusetts

Bear Swamp 2 site

M 39 81 is near Berkley, Massachusetts (41° 49' 43" N, 71° 6' 31" W). Samples subm by Carol Barnes, Dept Anthropol & Geog, Rhode Island Coll, Providence.

UGa-386. Feature 190 4180 ± 75

Charcoal dispersed in pit, 107cm below plow zone.

UGa-387. Feature 65 3445 ± 80

Charcoal dispersed in possible garbage pit, 55cm below plow zone.

UGa-388. Feature 72 2210 ± 70

Charcoal concentration from pit 150cm below plow zone.

UGa-913. Feature 230 4080 ± 85

Charcoal from deep hearth on hill isolated from main occupation area.

General Comment (CB): UGa-386 and -387 compare well with dates of Squibnocket complex artifacts found on Martha's Vineyard (Ritchie, 1969) and a previous date of 3520 ± 180 (GX-2418, unpub) for Bear Swamp 2. UGa-388 date is unexpected as site yields no materials usually assoc with this time period, but Feature 72 was unique in site and apparently does not belong with rest of occupation.

UGa-389. Bear Swamp 1 4145 ± 65

Charcoal assoc with red ochre burial, 60cm below base of plow zone. This site, M 39 72, is .2km from Bear Swamp 2 and date is acceptable. Sample subm by Carol Barnes.

UGa-830. Peace Haven 2 site 6460 ± 75

Charcoal from SE Massachusetts site M 39 74 (41° 46' 10" N, 71° 6' 37" W) from base of pit 80cm below plow zone. Pit filled with sand, red ochre and few calcined bone fragments, also a unique perforated stone

object with single central hole perforated by pecking from both sides. Date indicates correlation with Otter-Creek-like points which have been found in vicinity but not assoc with charcoal. Sample subm by Carol Barnes.

Read Farm B series

Site R2-94 is Archaic site (46° 29' N, 71° 20' W) in Seekonk, Massachusetts. Samples coll by Arthur Staples and T E Lux; subm by T E Lux, Dept Anthropol, Providence Coll.

UGa-635. Feature A-2, charcoal **3535 ± 130**

From hearth uncovered near plow zone.

UGa-921. Feature 18, charcoal **3475 ± 70**

From hearth in pit ca .6m deep.

UGa-922. Feature 47, charcoal **3145 ± 65**

From large shallow hearth 26cm deep.

UGa-912. Ponkapoag site **4960 ± 75**

From deep feature, 3.2m, Site M 35-7 near Ponkapoag Pond (42° 12' N, 71° 7' W) with much flaked debris. Coll 1974 by Joseph Marshall, South Shore Chap, Massachusetts Archaeol Soc; subm by John Rosser, History Dept, Boston Coll, Chestnut Hill, Massachusetts. Site discussed in Martin (1977).

Green Hill site series

Site M 35 NW on kame terrace along Neporset R at junction of I-95 and Rte 128, 180m N of end of I-95 and Rte 128 (42° 13' N, 71° 8' W). Samples coll Oct 1975; subm by John Rosser, South Shore Chap Massachusetts Archaeol Soc. Earlier Green Hill site dates in R, 1975, v 17, p 109.

UGa-1236. Charcoal **4390 ± 70**

From firepit ca 3cm below surface.

UGa-1237. Wood **Modern**

From presumed basket ca 3cm below surface.

UGa-932. Charlestown Meadows, Feature 2 **4365 ± 105**

Charcoal and charred wood from well-defined circular, bowl-shaped fire pit in Westboro, Massachusetts (42° 16' 10" N, 71° 38' 57" W), between Gleason and Fisher Sts. Top diam 1.9m, total vertical range 17.5cm, beginning 5cm below base of plow zone, and cutting into glacial gravel. Possibly assoc with nearby quartz scraper fragment. Coll Nov 1974 and subm by Curtiss Hoffman, South Shore Chap, Massachusetts Archaeol Soc. *Comment* (CH): date is relatively consistent with stylistic criteria from site, which appears at present writing to be a single-component Brewerton/Squibnocket complex site.

*Montana***Pretty Creek site series, 24 Cb 4 & 5**

Occupation site (45° 4' 52" N, 108° 15' 24" W). Subm by K N Good, Dept Anthropol & Archaeol, Univ North Dakota, Grand Forks.

UGa-957. Charred earth and charcoal **7685 ± 580**
Contains many bits of charcoal obtained at depth 80 to 100cm.

UGa-960. Charcoal **390 ± 65**
From surface depth 7.5cm.

*North Dakota***Naze site series, 32 Sn 246**

Composed of 2 components, both assoc with Woodland period (46° 41' 7" N, 98° 35' 38" W). Samples subm by K N Good.

UGa-1398. Charcoal **2035 ± 70**
From Unit A, 1 of 4 test units excavated at site, from lowest of the 2 components, Level 9, 80 to 90cm below surface. No cultural features were noted at site which was composed of fire cracked rock, fragmentary faunal remains, ceramics, and chipped stone tools.

UGa-1499. Charcoal **3405 ± 85**
Recovered from profile exposed in nearby cutback at depth 2.6cm.

UGa-961. Squash seeds **1145 ± 105**
Assoc with burial at Site 32 Rm 201 excavated near Lisbon, North Dakota on Cheyenne R. Subm by K N Good.

Hendrickson III site series, 32 Sn 403

Possible fortified village site with at least 6 probable house depressions and fortification ditch surrounding site (46° 43' 29" N, 98° 33' 53" W). Samples subm by K N Good.

UGa-1396. Charcoal **425 ± 65**
From Level 5 of 3 by 4m test unit (N15 W02) which was situated so as to quarter one of these depressions. Recovered from massive heap of faunal material at base of large trash pit.

UGa-1397. Charcoal **585 ± 60**
Combined sample from 1 by 2m test unit (N21 E06), part of 14m trench bisecting fortification ditch. Although from combined levels, 3, 4, and 5, charcoal is probably from one occupation and or component.

UGa-1498. Charcoal **570 ± 85**
From same units as UGa-1396, closer to surface.

UGa-1097. Quast site, 32 Lm 234 705 ± 70

Located on right bank of James R, LaMoure Co (46° 28' 15" N, 98° 23' 41" W). Identified as assoc with Stutsman focus (Wheeler, 1963). Charcoal from buried hearth which also contained ceramics, lithic debitage, and faunal debris. Subm by Fred Schneider, Dept Anthropol & Archaeol, Univ North Dakota, Grand Forks.

*Ohio***UGa-579. Logan site, 33 Ct 30, Feature 8 4115 ± 455**

Charred wood and nut hull fragments from refuse pit in Clermont Co, Ohio (38° 49' 22" N, 84° 13' 17" W). Pit is near top of midden accumulation but below plow zone 22cm below ground surface in small Late Archaic base camp. Coll and subm 1973 by K D Vickery, Dept Anthropol, Univ Cincinnati. *Comment* (KDV): date is in expected range and dates McWhinney Heavy Stemmed projectile point contained within feature. This projectile point type is diagnostic for Late Archaic at least in SW Ohio and adjacent portions of Kentucky and Indiana.

Bullskin Creek site, 33 Ct 29

A Late Archaic base camp (38° 46' 39" N, 84° 5' 10" W). Coll and subm 1974 by K D Vickery.

UGa-930. Charred nut hulls and wood charcoal 4550 ± 355

Fragments from Feature 6, earth oven originating within but near base of midden deposit, .43m below ground surface.

UGa-931. Charred wood and nut hull fragments 4470 ± 75

From shallow pit in Feature 12, containing cache of ceremonial objects, .74m below ground surface, below base of overlying midden deposit.

DuPont site series

A large Late Archaic base camp, 33 Ha 11, Hamilton Co, Ohio (39° 6' 35" N, 84° 48' 40" W). Site originally covered > 40 acres, now only 15.

UGa-928. Nut hulls 4485 ± 75

From earth oven originating in non-midden cultural deposit ca 46m below ground surface and assoc with a flexed burial. Coll 1974 by T S Dalbey; subm by K D Vickery.

UGa-1342. Charred nut hulls and wood charcoal 4125 ± 65

From a deeply stratified earth oven .3m below sheet midden. Assoc with 3 burials, various artifacts and tunnel leading to another feature .9m below surface. Subm by T S Dalbey, Dept Anthropol, Univ Cincinnati, Ohio.

UGa-1343. Charcoal 4100 ± 65

From large, possibly communal, earth oven coll at depth .75m. Top of oven occurred in plow zone and was truncated by plow; has assoc artifacts. Subm by T S Dalbey.

UGa-1344. Charred nut hulls and wood charcoal 4435 ± 65

From shallow basin earth oven at depth 36cm. Ten artifacts were assoc with feature and a burial. Coll Jan 1975 by T S Dalbey and B J Featherstone; subm by T S Dalbey.

General Comment (TDS): all ovens showed evidence of several distinct usages. There is also evidence that inhabitants were either from or related to people of Green R, Kentucky. 31 Late Archaic burials were found at this site, which also contains extinct Ohio R mussel shells.

Sand Ridge site, 33 Ha 17

Stratified multicomponent site, Hamilton Co, Ohio (39° 6' 7" N, 84° 24' 15" W). First occupation is Late Archaic component, followed by Early Woodland, Late Woodland, and Upper Mississippian, Fort Ancient component. For discussion see Griffin (1943) and Starr (1960).

UGa-929. Charcoal 1510 ± 100

From Test Pit A, Level 12, midden cultural deposit 1.3m below ground surface. Coll 1974 by J L Theler; subm by K D Vickery.

UGa-1333. Charcoal 1135 ± 60

From midden, Level 8, 85cm from surface in what is believed to be top of Late Woodland component. Coll by R E Riggs, J L Theler, and T S Dalbey; subm April 1976 by Charles Oehler, Cincinnati Mus Nat Hist, Cincinnati, Ohio.

UGa-1334. Charcoal 3370 ± 110

From burial pit, Level 18, containing semi-flexed adult female, from what is believed to be basal occupation of Upper Mississippian component; there was no break in stratigraphy. Coll by R E Riggs, J L Theler, and T S Dalbey; subm by Charles Oehler.

Krill Rockshelter site series

Bath Township, Summit Co, Ohio (41° 11' N, 81° 40' W). Subm by D J Metzger, Dept Sociol, Univ Akron, Ohio.

UGa-1528. Charcoal 1705 ± 75

Sample from ca 77cm below surface in prepared fireplace. Assoc with bone fragments, grit-tempered sherds, 2 bone awls, flint chips, miscellaneous stone, including slate, hematite, and sandstone. Coll Aug 1974.

UGa-1529. Charcoal **2095 ± 95**

From surface burn area 132cm below surface. Assoc with bone fragments, ground-stone axe, flint chips, miscellaneous stone. Coll Aug 1975.

UGa-1530. Charcoal **1795 ± 265**

From fire burn area ca 15cm below surface. Assoc with bone fragments, 2 bone awls and awl fragment, 2 antler punches, grit-tempered sherds, flint chips, 2 flint tools and tool fragment, and miscellaneous stone. Call Aug 1974.

UGa-1531. Charcoal **405 ± 80**

Sample from fire pit ca 46cm below surface. Assoc with bone fragments, 1 drilled bone fragment, 1 grit-tempered sherd, flint chips, 1 point fragment, and miscellaneous stone. Coll Aug 1975.

UGa-666. Spruce, 33 Da Br-2 **12,190 ± 215**

Beaver-chewed spruce wood found below partial skeleton of ground sloth (*Megalonyx jeffersonii*) in ground moraine between Bloomer and Union City end moraines in Darke Co (40° 12' N, 84° 12' W) Lowell Carter farm. Coll and subm Dec 1973 by R S Mills, Dayton Mus Nat Hist, Dayton, Ohio. *Comment* (RSM): age falls in expected range. Site and fossils are discussed in Mills (1975).

*Ontario, Canada***UGa-1905. Pipeline site** **545 ± 85**

Charcoal from midden in Site Ai Gx-12, Halton Co, Ontario (43° 26' 55" N, 79° 54' 55" W), depth 35cm, 4th level. Coll and subm by Melanie Busby, Dept Anthropol, Trent Univ, Peterborough, Ontario. *Comment* (MB): date supports belief that site is of early prehistoric Neutral phase.

REFERENCES

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