

UNIVERSITY OF MIAMI RADIOCARBON DATES XIV

P M CALVERT, D S INTRONE and J J STIPP

Department of Geology, University of Miami
Coral Gables, Florida 33124

The following radiocarbon dates are a partial list of samples measured since January 1978. The chemical, counting and calculation procedures are the same as indicated in R, v 20, p 000-000.

SAMPLE DESCRIPTIONS**I. ARCHAEOLOGIC SAMPLES***A. Bahamas***Bimini Atlantis series**

Carbonate rock samples, postulated rd bldg material of lost civilization Atlantis (Harrison, 1971; Shinn, 1977) dated as whole rock and in separated components of shell material and cement, to determine maximum age of "road-like" formation. Cores from blocks -4.6m, oriented parallel to and ca 10km from W Bimini shoreline (26° 0' N, 77° 30' W). Coll 1977 by E Shinn, USGS, Fisher Island Sta, Miami, Florida, and subm 1978 by D Drevitson, Univ Miami. Samples id by depth in core.

| | | |
|-----------------|--------------------------------------|------------------|
| UM-1359. | F(a) 4 to 6 cm, whole rock | 2780 ± 70 |
| UM-1360. | F(b) 15.5 to 17cm, whole rock | 3500 ± 80 |
| UM-1361. | F(c) 27.5 to 29cm, whole rock | 3350 ± 90 |
| UM-1362. | H, shells | 3510 ± 70 |
| UM-1363. | B 0 to 5cm, cement | 2750 ± 80 |
| UM-1364. | B 12.9 to 16.8cm, cement | 2770 ± 80 |
| UM-1365. | B 24.7 to 29.8cm, cement | 2840 ± 70 |

*B. United States***Granada series**

Shell and charcoal from prehistoric Indian midden at mouth of Miami R on N bank (25° 46' 37" N, 80° 11' 32" W) dated site. Coll 1978 by C Martinez, Bur Hist Sites & Properties, Tallahassee, Florida and subm by J Mattes, Univ Miami. *Comment* (P Calvert): external and internal portions of shells (*strombus gigas*) processed separately in conjunction with x-ray defraction analysis to study effects of possible recrystallization in samples.

| | | |
|-----------------|------------------|----------------------------------------|
| UM-1366. | FS-198-Ch | 1740 ± 90 |
| | | $\delta^{13}\text{C} = -25.56\text{‰}$ |

Charcoal from 60 to 75cm below ground surface.

| | | |
|-----------------|------------------------------|------------------|
| UM-1367. | Duplicate run UM-1366 | 1260 ± 70 |
|-----------------|------------------------------|------------------|

UM-1368. FS-198-sh **1600 ± 90**
 $\delta^{13}\text{C} = +1.41\%$

Internal portion of shell found with UM-1366 and -1367 60 to 75cm below ground surface.

UM-1369. External portion UM-1368 **1590 ± 90**
 $\delta^{13}\text{C} = +1.89\%$

UM-1371. Duplicate run UM-1369 **1490 ± 250**

UM-1372. Duplicate run UM-1368 **1380 ± 100**

UM-1373. FS-87-sh **1720 ± 70**
 $\delta^{13}\text{C} = -0.66\%$

External portion of shell 135 to 150cm below ground surface.

UM-1374. Internal portion UM-1373 **1870 ± 90**
 $\delta^{13}\text{C} = -0.54\%$

UM-1370. FS-87-Ch **1780 ± 100**
 $\delta^{13}\text{C} = -25.53\%$

Charcoal found with UM-1373 and -1374, 135 to 150cm below ground surface.

Kenan Field series

Three carbonized wood samples and one carbonized marine shell sample from Kenan Field, Sapelo I., Georgia (NGR 473500E, 348000N). Coll 1977 by M R Crook, Florida State Mus and subm 1978 by M R Crook and J T Milanich, Florida State Mus, Gainesville, Florida.

UM-1388. FOA3 r (49) **970 ± 60**
 $\delta^{13}\text{C} = -25.60\%$

Carbonized wood from probable earth oven that was later used as refuse pit.

UM-1389. Fea. 219 (51) **1660 ± 70**
 $\delta^{13}\text{C} = -25.52\%$

Carbonized wood from hearth that preceded construction of wall trench assoc with Structure 2.

UM-1390. FEA 108 (53) **790 ± 70**

Carbonized oyster shell from hearth assoc with Structure 1. Sample is from uppermost undisturbed level 25cm below surface.

UM-1391. FEA 109 (54) **1200 ± 60**
 $\delta^{13}\text{C} = -26.64\%$

Carbonized wood from a probable post hole assoc with construction of Structure 1.

Kings Bay series

Several carbonized wood and oyster samples from Feature 2 and Feature 4 pits located at King's Bay Naval facility, Comden Co, Georgia

(NGR 340600mN, 451000mE). Coll and subm 1978 by R Johnson, Univ Florida, Gainesville. *Comment* (DI): UM-1429 and -1430 are from Feature 4, a trash pit, ca 60 to 62cm below ground surface. UM-1431, -1433 are from Feature 2, hearth 24cm below present ground surface assoc with numerous sherds of fiber-tempered ceramic vessel(s).

UM-1429. Fea. 4 FS #116, KBS 12 **2330 ± 180**
 $\delta^{13}\text{C} = -26.89\text{‰}$

Carbonized wood.

UM-1430. Fea. 4 FS #116a, KBS 12 **980 ± 70**
 Oyster shell.

UM-1431. Fea. 2 FS #62, KBS 12 **1330 ± 60**
 Oyster shell.

UM-1432. Fea. 2 FS #56, KBS 8 **5000 ± 180**
 $\delta^{13}\text{C} = -27.99\text{‰}$

Carbonized wood.

UM-1433. Fea. 2 FS #60, KBS 8 **4260 ± 100**
 $\delta^{13}\text{C} = -25.54\text{‰}$

Carbonized wood.

Welborn series

Three charred *Pinus* samples from Florida Archeol Site 8 Co 17 in W Columbia Co, Florida, ca 4km E of Welborn, Florida (30° 13' 26" N, 82° 46' 15" W). Coll and subm 1978 by J T Milanich.

UM-1434. FS 956-A **1460 ± 70**
 $\delta^{13}\text{C} = -26.04\text{‰}$

Dates Mound C and Kolomoki-style pedestaled effigy vessels in N Florida.

UM-1435. FS 1094-A **1720 ± 80**
 $\delta^{13}\text{C} = -25.80\text{‰}$

Dates Mound A and late proto-chieftdom level of social organization at site.

UM-1436. FS 1022-A **1470 ± 70**
 Dating required for clarification of Mound C position.

UM-1395. Chaco River **1910 ± 90**
 $\delta^{13}\text{C} = -23.92\text{‰}$

Carbonized wood from Late Basketmaker III pithouse site on Chaco R in NW New Mexico (36° 07' 03" N, 108° 11' 12" W). Material taken from undisturbed hearth ca 2m below site surface. Coll and subm 1977 by W H Doleman, Mus New Mexico, Santa Fe.

II. GEOLOGIC SAMPLES

A. SE Pacific

E Pacific Rise series

Foram and diatom ooze from E Pacific Rise and Bellinghausen abyssal plain, dated to study sedimentation rate since last glaciation. All samples from SE flank of E Pacific Rise unless stated otherwise and id by depth in core. Coll 1978 by M Dinkelman, Florida State Univ, Tallahassee, and subm 1978 by P Sahler, Univ Miami.

UM-1375. E17-30, 36 to 38cm **15,730 ± 580**

Core from NE Bellinghausen Abyssal Plain (58° 09" S, 94° 49" W) from water depth 627m.

UM-1376. PC-E-2, 20 to 22cm **6560 ± 250**

Core (56° 3' 30" S, 115° 3' 42" W), water depth 518m.

UM-1377. PCE32-22, 13 to 15cm **6920 ± 100**

Core (54° 56' 12" S, 120° 00' W), water depth 457m.

UM-1378. PCE33-22, 27 to 29cm **8380 ± 200**

Core (54° 56' 12" S, 120° 00' W), water depth 457m.

UM-1379. PCE33-22, 66 to 69cm **21,370 ± 420**

Core (54° 56' 12" S, 120° 00' W), water depth 457m.

UM-1380. PCE11-2, 45 to 47cm **10,010 ± 380**

Core (56° 03' 30" S, 115° 03' 42" W), water depth 518m.

UM-1381. PCE11-3, 18 to 20cm **9570 ± 300**

Core (56° 54' 12" S, 115° 14' 36" W), water depth 671m.

B. South America

Surinam series

Shell, shell fragment and peat debris from Surinam. Dated to reconstruct Holocene depositional sequence on shoreline. Coll 1977 and subm 1978 by J Rine, Univ Miami, Fisher Island, Miami Beach, Florida.

UM-1406. S-XI: 1139 to 1264cm **7060 ± 100**

$\delta^{13}\text{C} = -27.95\%$

Loose peat debris from peaty mud (55° 30' 15" W, 05° 49' 00" N). Coll from core 15km from present shoreline.

UM-1407. S-Transect: Beach **109.0‰ mod**

Chione, *Crassostrea* from active beach (55° 31' 30" W, 05° 59' 40" N).

UM-1408. P-13: 50 to 95cm **2320 ± 80**

Core containing bivalves from near base of relict beach ridge (55° 12' 30" W, 05° 51' 30" N).

UM-1409. P-10: 200 to 230cm 1730 ± 120

Core containing *Chione*, *Tellin* and unknown shell fragments from base of quartz sand beach sequence on relict beach ridge (55° 11' 00" W, 05° 53' 10" N).

*C. United States***Card Sound series**

Peat samples from 30m wide fringing red mangrove stand along Card Sound (25° 20' 35" N, 80° 20' 00" W), Florida as part of study (R, v 20, no. 3, p 511-512) of effects of peat deposits on underlying limestone. Sample id by depth below ground surface. Coll 1978 by J Meeder, D Introne, and V Skinner, Univ Miami and subm by V Skinner.

UM-1339. Core-1, 19 to 25cm 1630 ± 70
 $\delta^{13}\text{C} = -25.02\text{‰}$

UM-1340. Core-1, 172 to 187cm 4830 ± 90
 $\delta^{13}\text{C} = -25.18\text{‰}$

UM-1341. Core-2, 28 to 36cm 900 ± 70
 $\delta^{13}\text{C} = -24.71\text{‰}$

UM-1342. Core-2, 141 to 147cm 4830 ± 70
 $\delta^{13}\text{C} = -26.12\text{‰}$

UM-1343. Core-3, 26 to 32cm 500 ± 60
 $\delta^{13}\text{C} = -26.44\text{‰}$

UM-1344. Core-3, 84 to 90cm 3300 ± 60
 $\delta^{13}\text{C} = -26.19\text{‰}$

UM-1345. Core-3, 165 to 173cm 5240 ± 80
 $\delta^{13}\text{C} = -26.52\text{‰}$

Oak Island series

Peat and wood samples dated to study ancient lagoonal environment on North Carolina shoreline, Oak I. (33° 53' 30" N, 78° 00' 07" W). Coll and subm 1978 by W Cleary, Univ North Carolina, Wilmington.

UM-1354. Oak Island-1 1440 ± 70
 $\delta^{13}\text{C} = -26.82\text{‰}$

Peat from exposed face on Yawpow Beach near high tide line.

UM-1355. Oak Island-2 500 ± 60
 $\delta^{13}\text{C} = -28.11\text{‰}$

Peat from intertidal zone of beach face below Long Beach pond.

UM-1356. Oak Island-3 1300 ± 70
 $\delta^{13}\text{C} = -26.87\text{‰}$

Peat from within Long Beach pond.

UM-1357. Oak Island-4**1410 ± 80**

Wood from stump forest Caswell beach.

*D. Caribbean***UM-1394. Green Cay Boring****4050 ± 90**

Coral boring taken 25m below sea level from Tongue of Ocean in vicinity of Green Cay, Bahamas (24° 04' N, 77° 10' W). Sample taken to calibrate facies anatomy on leeward margin of carbonate platform. Coll 1976 by drilling contractor for Univ Miami, Fisher I., Miami Beach, Florida.

REFERENCES

- Calvert, M, Introne, D, and Stipp, J J, 1978, University of Miami radiocarbon dates XIII: Radiocarbon, v 20, p. 000-000.
Harrison, W, 1971, Atlantis Undiscovered—Bimini, Bahamas: Nature, v 230, p 287-289.
Shinn, E A, 1977, Atlantis Hoax?, unpub paper, p 1-11.