

UNITED STATES GOVERNMENT

memorandum

DATE: April 4, 1980

REPLY TO
ATTN OF:

Robert Stuckenrath, Anthropologist, SRBL. *RS*

SUBJECT:

Report from Carbon Dating Laboratory

TO:

Clifford Evans, Dept. Anthropology, NHB
Through: William H. Klein, Director, RBL *WAK*

Herewith five radiocarbon dates for samples submitted from Pankatera, Ponape. Perhaps you can explain why the oldest date for each fireplace appears at the highest stratigraphic level. Is it because it's on the other side of the world where everybody lives upside down?

Attachments

Pankatera series, Ponape I

Charcoals from Pankatera ($6^{\circ} 50' 17''$ N, $158^{\circ} 20' 15''$ E), Ponape I,
Carolines. Coll 1963 and subm by Saul Riesenbergs and Clifford Evans,
Smithsonian Inst.

		485 \pm 65
SI-4152.	Pankatera I, 10	A.D. 1465
	Charcoal from fireplace 1, unit 1, 20 to 30cm.	
		160 \pm 80
SI-4153.	Pankatera I, 11	A.D. 1790
	Charcoal from fireplace 1, unit 1, 30 to 40cm.	
		855 \pm 60
SI-4154.	Pankatera B, 40	A.D. 1095
	Charcoal from fireplace 2, unit B, 0 to 10cm.	
		280 \pm 70
SI-4155.	Pankatera B, 41	A.D. 1670
	Charcoal from fireplace 2, unit B, 10 to 20cm.	
		545 \pm 65
SI-4156.	Pankatera B, 42	A.D. 1405
	Charcoal from fireplace 2, unit B, 20 to 30cm.	

Pankatera series, Ponape I

Charcoals from Ponkatera ($6^{\circ} 50' 17''$ N, $158^{\circ} 20' 15''$ E), Ponape I,
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	Charcoal from fireplace 2, unit B, 20 to 30cm.	

485 ± 65 B.P.
A.D. 1465

Smithsonian Institution
Radiocarbon Laboratory
Radiation Biology Laboratory
12441 Parklawn Drive
Rockville, Md., 20852

SI- 4152

Rec'd: 9/79

Site name: Pankatera - Unit I Site number: P-1
Ponape Island, Caroline Islands, Micronesia
Exact site location: 6° 50' 17" N lat; ~~158~~
158° 20' 15" E long.

Latitude:

Longitude:

Cultural and/or time range of site: 1180 - modern times; See remarks.

Sample material: Charcoal

Cat. No. Ponape # 10

Genus and species:

Identified by:

Geological/chemical environment of sample: Sample from a stone (basalt)
AND Coral lined fireplace in house floor.

Evidence of leaching or humus: Heavy rainfall area

Evidence of contamination or root penetration: Trees and vines over
whole site, had to be cut down. Visible ~~xx~~ rootlets removed from sample.

Field packaging: Plastic bag.

Preservative or fungicide: None used.

Excavation coordinates and stratigraphic position:

Fireplace 1 of Unit I, Level 20 - 30 cm.

Feature number and description: Excavated fireplace and sifted

Associated cultural materials: 10 fishbones, 4 turtle bones,
1 rum bottle, of past century type, fragment.

Estimated age and basis: This fireplace could be of aboriginal time
period of 1180 - 1430 AD) or of contact with Europeans or even of Japanese
Importance of dating this sample: occupation during time of World War I
to World War II.

compare with the dated charcoal samples from the ceremonial fires of

Ishid Mound to see if house pit fireplaces and associated refuse have any

OVER ---

485 ± 65 B.P.
A.D. 1465

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12441 Parklawn Drive
Rockville, Md., 20852

SI- 4152

Rec'd: 9/79

Site name: **Pankatera - Unit I** Site number: **P-1**

Ponape Island, Caroline Islands, Micronesia
Exact site location: **6° 30' 17" N lat; ~~28x~~**
158° 20' 15" E long.

Latitude:

Longitude:

Cultural and/or time range of site: **1180 - modern times; See remarks.**

Sample material: **Charcoal**

Cat. No. **Ponape # 10**

Genus and species:

Identified by:

Geological/chemical environment of sample: **Sample from a stone (basalt)**
AND Coral lined fireplace in house floor.

Evidence of leaching or humus: **Heavy rainfall area**

Evidence of contamination or root penetration: **Trees and vines over**
whole site, had to be cut down. Visible ~~xx~~ rootlets removed from sample.

Field packaging: **Plastic bag.**

Preservative or fungicide: **None used.**

Excavation coordinates and stratigraphic position:

Fireplace 1 of Unit I, Level 20 - 30 cm.

Feature number and description: **Excavated fireplace and sifted**

Associated cultural materials: **10 fishbones, 4 turtle bones,**
1 rum bottle, of past century type, fragment.

Estimated age and basis: **This fireplace could be of aboriginal time**
period of 1180 - 1430 AD] or of contact with Europeans or even of Japanese
Importance of dating this sample: **occupation during time of World War I**
to World War II.

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Idehd Mound to see if house pit fireplaces and associated refuse have any

Submitter and affiliation: Clifford Evans, NMNH, August 31, 1979

Collector and collection date: Excavated in field, 1963 by Riesenbergs,
Evans and Meggers.
Other dates from site, position and publication reference:

See SI -90 - 520 B.P. \pm 65

Relevant publications: SI-91 - 690 B.P. \pm 50
SI-92 - 770 B.P. \pm 60

Until a detailed study was made of shell remains and bone remains from
various fireplaces dug at house units in Popoia, it was thought that
they all might have been contaminated by recent use of Japanese during
Further comment: time of their occupation of island from World War I - II.
But with study of these faunal remains it is worth trying to see
if the fireplace refuse from two units (I - Cat. Nos. 10 and 11) and
B (Cat. Nos. 40, 41 and 42), might not also be aboriginal occupation.

Note: there is the chance that all these samples might prove modern
but Riesenbergs, Evans, Meggers and Hesse who recently did the faunal
remains, plus Rehder who did the shell remains, think it worth trying
to date and hope that instead they prove to fall within the
aboriginal period, or maybe the early contact period with
Europeans.

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160 ± 80 BP

A.D. 1790

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Radiocarbon Laboratory
Radiation Biology Laboratory
12441 Parklawn Drive
Rockville, Md., 20852

SI- 4153

Rec'd: 9/79

Site name: Pankatora - Unit I

Site number: P-1

Exact site location: Ponape Island, Caroline Islands, Micronesia

Latitude: 6° 50' 17" North ; Longitude: 158° 20' 15" East Long.

Cultural and/or time range of site: 1180 to modern. See remarks
in detail on Cat. No. Ponape # 10.

Sample material: Charcoal

Ponape # 11.

Genus and species:

Identified by:

Geological/chemical environment of sample: Sample from a stone (basalt)
and coral-lined fireplace in house floor.

Evidence of leaching or humus: heavy ~~rust~~ rainfall area.

Evidence of contamination or root penetration: Trees and vines over
site and had to be cut down. Visible rootlets removed from sample.

Field packaging: Elastic bag

Preservative or fungicide: None used.

Excavation coordinates and stratigraphic position:

Fireplace 1 of Unit I, Level 30 - 40 cm. Smaller fireplace lined with
stone within the larger fireplace.

Feature number and description:

Associated cultural materials: No bones from this lower level,
only shells and charcoal. No other artifacts.

Estimated age and basis: 1180 - 1430 AD - See comments on Ponape # 10
or possible contamination with recent European occupation.

Importance of dating this sample:

See comments on Ponape # 10.

160 ± 80 B.P.

A.D. 1790

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Rec'd: 9/79

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Genus and species:

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Geological/chemical environment of sample: Sample from a stone (basalt)
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Evidence of leaching or humus: heavy ~~rust~~ rainfall area.

Evidence of contamination or root penetration: Trees and vines over
site and had to be cut down. Visible rootlets removed from sample.

Field packaging: Elastic bag

Preservative or fungicide: None used.

Excavation coordinates and stratigraphic position:

Fireplace 1 of Unit I, Level 30 - 40 cm. Smaller fireplace lined with
stone within the larger fireplace.

Feature number and description:

Associated cultural materials: No bones from this lower level,
only shells and charcoal. No other artifacts.

Estimated age and basis: 1180 - 1430 AD - See comments on Ponape # 10
or possible contamination with recent European occupation.

Importance of dating this sample:

See comments on Ponape # 10.

855 ± 60 BP
A.D. 1095

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SI- 4154

Rec'd: 9/79

Site name: ~~Pankatera~~ - Unit B

Site number: P-1

Exact site location: Ponape Island, Caroline Islands, Micronesia

Latitude: 6° 50' 17" North

Longitude: 158° 20' 15" East

Cultural and/or time range of site: 1180 AD to modern. See remarks
in detail on Sample No. ~~in~~ Ponape # 10.

Sample material: Charcoal

Ponape # 40

Genus and species:

Identified by:

Geological/chemical environment of sample: Sample from a stone (basalt)
and coral lined fireplace in house floor.

Evidence of leaching or humus: "heavy rainfall area.

Evidence of contamination or root penetration: Trees and vines
over site and had to be cut down. Visible rootlets removed from sample.

Field packaging: Plastic

Preservative or fungicide: None used.

Excavation coordinates and stratigraphic position:

Fireplace 2, Unit B, Level 0 - 10 cm.

Feature number and description:

Associated cultural materials: 14 fish bones; 5 turtle; 1 scapula
1 innominate and 1 lower molar of Canis familiaris; 1 mammal shaft bone
fragment.

Estimated age and basis: No European goods found in fireplace and so
hopefully not contaminated. 1180[±] - 1430 AD, See comments under Ponape # 10.

Importance of dating this sample:

Ditto, see comments under Ponape # 10.

855 ± 60 BP
A.D. 1095

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SI- 4154

Rec'd: 9/79

Site name: Pankatera - Unit B

Site number: P-1

Exact site location: Ponape Island, Caroline Islands, Micronesia

Latitude: 6° 50' 17" North

Longitude: 158° 20' 15" East

Cultural and/or time range of site: 1180 AD to modern. See remarks
in detail on Sample No. ~~9~~ Ponape # 10.

Sample material: Charcoal

Ponape # 40

Genus and species:

Identified by:

Geological/chemical environment of sample: Sample from a stone (basalt)
and coral lined fireplace in house floor.

Evidence of leaching or humus: heavy rainfall area.

Evidence of contamination or root penetration: Trees and vines
over site and had to be cut down. Visible rootlets removed from sample.

Field packaging: Plastic

Preservative or fungicide: None used.

Excavation coordinates and stratigraphic position:

Fireplace 2, Unit B, Level 0 - 10 cm.

Feature number and description:

Associated cultural materials: 14 fish bones; 5 turtle; 1 scapula
1 innominate and 1 lower molar of Canis familiaris; 1 mammal shaft bone
fragment.

Estimated age and basis: No European goods found in fireplace and so
hopefully not contaminated. 1180⁺ - 1430 AD, See comments under Ponape # 10.
Importance of dating this sample:

Ditto, see comments under Ponape # 10.

280 ± 70 B.P.

A.D. 1670

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SI- 4155

Rec'd: 9/79

Site name: Pankatera - Unit B

Site number: P-1

Exact site location: Ponape Island, Caroline Islands, Micronesia

Latitude: 6° 50' 17" North

Longitude: 158° 20' 15" East

Cultural and/or time range of site: 1180 AD to modern. See remarks on Sample Ponape # 10.

Sample material: Charcoal

Ponape # 41

Genus and species:

Identified by:

Geological/chemical environment of sample: Sample from a stone (basalt) and coral lined fireplace in house floor.

Evidence of leaching or humus: Heavy rainfall area.

Evidence of contamination or root penetration: Trees and vines over site and had to be cut down. Visible rootlets removed from sample.

Field packaging: Plastic

Preservative or fungicide: None used

Excavation coordinates and stratigraphic position:

Fireplace 2, Unit B. Level 10 - 20 cm.

Feature number and description:

Associated cultural materials: 10 fish bones, 4 mammal bones shaft fragments and 3 unidentified fragments. No European goods.

Estimated age and basis: No European goods and so hopefully not contaminated. 1180 - 1430 A.D. See comments under Ponape # 10.

Importance of dating this sample: Should be ~~about~~ older than Ponape # 40 by a few years.

280 ± 70 B.P.

A.D. 1670

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SI- 4155

Rec'd: 9/79

Site name: Pankatera - Unit B

Site number: P-1

Exact site location: Ponape Island, Caroline Islands, Micronesia

Latitude: 6° 50' 17" North

Longitude: 158° 20' 15" East

Cultural and/or time range of site: 1180 AD to modern. See remarks on Sample Ponape # 10.

Sample material: Charcoal

Ponape # 41

Genus and species:

Identified by:

Geological/chemical environment of sample: Sample from a stone (basalt) and coral lined fireplace in house floor.

Evidence of leaching or humus: Heavy rainfall area.

Evidence of contamination or root penetration: Trees and vines over site and had to be cut down. Visible rootlets removed from sample.

Field packaging: Plastic

Preservative or fungicide: None used

Excavation coordinates and stratigraphic position:

Fireplace 2, Unit B. Level 10 - 20 cm.

Feature number and description:

Associated cultural materials: 10 fish bones, 4 mammal bones shaft fragments and 3 unidentified fragments. No European goods.

Estimated age and basis: No European goods and so hopefully not contaminated. 1180 - 1430 A.D. See comments under Ponape # 10.

Importance of dating this sample: Should be ~~much~~ older than Ponape # 40 by a few years.

545 ± 65 B.P.

AD 1405

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12441 Parklawn Drive
Rockville, Md., 20852

SI- 4156

Rec'd: 9/79

Site name: Pankatera - Unit B

Site number: P-1

Exact site location: Ponape Island, Caroline Islands, Micronesia

Latitude: 6° 50' 17" North

Longitude: 158° 20' 15" East

Cultural and/or time range of site: 1180 AD to modern. See remarks on sample Ponape # 10.

Sample material: Charcoal

Ponape # 42

Genus and species:

Identified by:

Geological/chemical environment of sample: Sample from a stone (basalt) and coral lined fireplace in house floor. .

Evidence of leaching or humus: Heavy rainfall area.

Evidence of contamination or root penetration: Trees and vines occur over site and had to be cut down, Visible rootlets removed from sample.

Field packaging: Plastic

Preservative or fungicide: None used

Excavation coordinates and stratigraphic position:

Fireplace 2, Unit B, Level 20 - 30 cm.

Feature number and description:

Associated cultural materials: No bones or artifacts in this level.

Estimated age and basis: No ~~European~~ European goods found, so hopefully not contaminated, 1180 - 1430 AD. See comments under Ponape # 10.

Importance of dating this sample: Should be slightly older than levels above of Ponape No. 40 and 41. .

545 ± 65 B.P.

AD 1405

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Radiocarbon Laboratory
Radiation Biology Laboratory
12441 Parklawn Drive
Rockville, Md., 20852

SI- 4156

Rec'd: 9/79

Site name: **Pankatera - Unit B**

Site number: **F-1**

Exact site location: **Ponape Island, Caroline Islands, Micronesia**

Latitude: **6° 50' 17" North**

Longitude: **158° 20' 15" East**

Cultural and/or time range of site: **1180 AD to modern. See remarks on sample Ponape # 10.**

Sample material: **Charcoal**

Ponape # 42

Genus and species:

Identified by:

Geological/chemical environment of sample: **Sample from a stone (basalt) and coral lined fireplace in house floor. .**

Evidence of leaching or humus: **Heavy rainfall area.**

Evidence of contamination or root penetration: **Trees and vines occur over site and had to be cut down, Visible rootlets removed from sample.**

Field packaging: **Plastic**

Preservative or fungicide: **None used**

Excavation coordinates and stratigraphic position:

Fireplace 2, Unit B, Level 20 - 30 cm.

Feature number and description:

Associated cultural materials: **No bones or artifacts in this level.**

Estimated age and basis: **No ~~European~~ European goods found, so hopefully not contaminated, 1180 - 1430 AD. See comments under Ponape # 10.**

Importance of dating this sample: **Should be slightly older than levels above of Ponape No. 40 and 41. .**