

SIMON FRASER UNIVERSITY RADIOCARBON DATES II

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This list reports measurements made on archaeological samples by our laboratory from September 1980 to May 1982. Results of measurements made during that period which lack review by submitters will be reported in a subsequent date list. Dates were obtained by liquid scintillation counting of benzene using the laboratory procedure outlined previously (R, 1982, v 24, p 344-351). All dates are expressed in ^{14}C years relative to AD 1950 based on the Libby half-life for ^{14}C of 5568 yr. The laboratory standard continues to be ANU sucrose. Data analysis is now performed with the aid of an RT-11 microcomputer interfaced with our Packard model 3255 LS counter. Dates have been corrected for isotopic fractionation only when the $\delta^{13}\text{C}$ value is given. No corrections have been made for natural ^{14}C variations. The following descriptions of samples are based on information provided by the submitters.

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A. Canada

British Columbia

Shuswap house-pit series

Charcoal and bone from EdQs 14 site (50° 30' 09" N, 119° 04' 06" W) N side of Shuswap R, 6.43km E of township of Enderby. This site consists of 3 small (5m diam) house-pit depressions and 86 small (1 to 2m) circular, cellar cache-pit depressions. Previous archaeol research in region suggested that rectilinear house-pits were local architectural specialization and were in use for over 1000 yr, ca AD 650 to 1750. The following ^{14}C dates appear to confirm this hypothesis. Samples coll and subm by Gordon Mohs, Dept Archaeol, Simon Fraser Univ.

SFU-50. **490 ± 130**

Charcoal from S wall of House-pit I, 20cm below surface. Sample dates main occupational horizon within house pit.

SFU-51. **870 ± 180**

Charcoal from pocket of fire-cracked rock at base of main component of House-pit II, 20 to 30cm below surface. Sample dates upper occupational horizon within house pit.

SFU-56. **430 ± 100**

Charcoal from cultural deposits on floor of House-pit I, 60 to 70cm below surface. Sample dates main occupational horizon within House-pit I.

SFU-57.**980 ± 100** $\delta^{13}C = -23.4\text{‰}$

Collagen extracted from deer antler from rimfall deposits on S side of House-pit I, 20 to 30cm below surface. This is only date of earlier component of site.

Kain Meat Cache site**SFU-73.****480 ± 100** $\delta^{13}C = -17.9\text{‰}$

Collagen from unid. mammal bone in soil matrix 0 to 10cm beneath rock cairn at DiLw-12 site (49° 51' 35" N, 99° 49' 45" W). Sample dates this type of feature to Late Prehistoric period. Sample coll and subm by B A Nicholson, Dept Archaeol, Simon Fraser Univ.

Kain Butchering site

Collagen from unid. mammal bones excavated at DiLw-11 site (49° 51' 30" N, 99° 50' 00" W). Site contains at least two superimposed occupations. Samples coll and subm by B A Nicholson.

SFU-72.**1700 ± 100** $\delta^{13}C = -18.8\text{‰}$

Collagen from mammal bone 50 to 70cm below surface.

SFU-75.**290 ± 100** $\delta^{13}C = -18.8\text{‰}$

Collagen from mammal bone 10 to 25cm below surface.

Unnamed Site I**SFU-74.****1780 ± 100** $\delta^{13}C = -18.8\text{‰}$

Collagen from unid. mammal bone from lower terrace at DiLx-3 site (49° 52' 00" N, 99° 55' 10" W). Sample coll and subm by B A Nicholson.

Canal Flats series

Charcoal and peat from EbPw-1 site (50° 11' 00" N, 115° 49' 10" W), E side of Columbia Lake, 3.2km N of Canal Flats. Site covers area 11ha and is characterized by 2 surface depressions and 2 pictograph panels. Samples coll and subm by Gordon Mohs.

SFU-77.**110 ± 80**

Charcoal from base of rock-lined pit depression 40 to 50cm below surface. Sample dates roasting pit. *Comment:* green residue present in combustion bomb after combustion indicates possible grease residue in sample.

SFU-78.**3160 ± 100**

Charcoal from charcoal lens adjacent to pictograph panel. As much ocher was recovered above and below this lens; sample subm to date panel.

SFU-79. 800 ± 80

Charcoal from layer of hearth rock from floor of house pit 20 to 30cm below surface. Sample represents only known date for house pit occupation with Rocky Mt trench.

SFU-80. 480 ± 80

Charcoal from post cavity on rim of roasting pit depression 30 to 40cm below surface.

SFU-89. 330 ± 80

Charcoal from layer of hearth rock of roasting pit 20 to 30cm below surface. *Comment:* sample consistent with SFU-80 from same feature.

SFU-99. 100 ± 80

Charcoal from layer of hearth rock near center of roasting pit 20 to 30cm below surface.

SFU-108. 140 ± 80

Peat-like organic matter from rock-lined pit depression at base of roasting pit. *Comment:* date is consistent with SFU-77 and -99 from same feature.

Kitselas Canyon Series I

Charcoal excavated from Paul Mason site, GdTc-16 (54° 36' 28" N, 128° 25' 04" W), E side of Skeena R, Kitselas Canyon, 16km NE of Terrace. This is village site at + 138m. Samples subm to date beginning and length of occupation; coll and subm by G F MacDonald for Parks Canada, P O Box 2989, Calgary, Alberta.

SFU-132. 3130 ± 100

Charcoal.

SFU-133. 3780 ± 120

Charcoal.

SFU-134. 3230 ± 160

Charcoal.

SFU-135. 890 ± 160

Charcoal.

Edziza series

Charcoal, wood, and peat from archaeol survey of Mt Edziza region (57° 20' to 35' N, 130° 30' to 45' W). Samples coll and subm by Knut Fladmark, Dept Archaeol, Simon Fraser Univ.

SFU-129. 4870 ± 120

$\delta^{13}C = -25\%$

Charcoal from 35 to 40cm below surface, overlying gray ash layer and underlying compact organic clays. Sample subm to date assoc flake arti-

facts from HiTp63. *Comment*: sample too small for base rinse. *Comment* (KRF): sample dates microblade component at Ohio level.

SFU-141. **2850 ± 160**
 $\delta^{13}C = -24.3\%$

Charcoal from dark humic soil matrix 14 to 17cm below surface. *Comment*: sample too small for base rinse. *Comment* (KRF): sample dates non-microblade cultural occupation, HiTp1.

SFU-142. **1430 ± 160**
 $\delta^{13}C = -25\%$

Wood from 25cm below surface, subm to date assoc obsidian flake artifacts. *Comment* (KRF): min limiting date on microblade component, HiTp1.

SFU-143. **260 ± 80**
 $\delta^{13}C = -26.4\%$

Charcoal from bulk sample 7cm below surface. *Comment* (KRF): min limiting date for non-microblade component, HiTp1; actual age better represented by SFU-141.

SFU-144. **Modern**

Charcoal from hearth feature, 5 to 10cm below surface. *Comment* (KRF): feature is prehistoric, date must reflect recent contamination.

SFU-145. **600 ± 80**
 $\delta^{13}C = -23.4\%$

Charcoal from 4 to 6cm below surface, subm to date assoc calcined bone and obsidian flakes. *Comment* (KRF): dates isolated hearth and flaking sta, HiTp1.

SFU-146. **8470 ± 120**
 $\delta^{13}C = -27.1\%$

Peat from 115cm below surface, subm to date basal sediments. *Comment* (KRF): min age for stabilization of modern drainage and slopes, and beginning of organic sedimentation at modern tree line.

SFU-147. **3910 ± 120**
 $\delta^{13}C = -23.5\%$

Charcoal. *Comment* (KRF): dates upper, non-microblade cultural level at HiTp63.

SFU-262. **1140 ± 80**
 $\delta^{13}C = -25\%$

Charcoal from 8cm below surface, subm to date assoc concentration of flakes. *Comment* (KRF): min limiting date on microblade component.

SFU-263. **4990 ± 130**
 $\delta^{13}C = -26.4\%$

Peat from 37cm below surface, subm to date lowest ash layer. *Comment* (KRF): directly overlies same ash overlain by SFU-129. I suggest that this date should be adjusted 1σ to 4860 BP.

SFU-264. **4630 ± 100**
 $\delta^{13}C = -26.5\%$

Peat from 35cm below surface. *Comment* (KRF): directly antedates massive fall of coarse tephra and postdates earlier fine ash fall.

SFU-265. **Modern**

Peat overlying highest ash layer just below bog surface. *Comment* (KRF): top 10 to 20cm of bog affected by solifluction.

SFU-266. **4560 ± 170**
 $\delta^{13}C = -25\%$

Peat underlying lowest ash layer, 40cm below surface. *Comment* (KRF): date is too recent, considering SFU-129 and -263 overlying same ash. I suggest 2σ adjustment to 4900 BP.

SFU-267. **Modern**

Peat overlying cinder layer 20cm below surface. *Comment* (KRF): too recent; sample probably affected by recent organic contamination or solifluction mixing.

Northwest Territories

KarluK Island series

Collagen from bones excavated at two sites on coast of KarluK (75° 30' N, 97° 16' W). Samples subm to determine Paleo-Eskimo occupation of Arctic Archipelago. Samples coll and subm by J W Helmer, Arctic Inst North America, Calgary, Alberta.

SFU-85. **1440 ± 120**
 $\delta^{13}C = -21\%$

Collagen from mixed land mammal bone (Arctic fox, musk-ox, polar bear) excavated from midden site, QjLd-17, at S end of island, + 4 to 6m.

SFU-82. **2530 ± 120**
 $\delta^{13}C = -21\%$

Collagen from Arctic fox bone. Sample coll from midden site, QjLd-21, on W coast of island, + 10 to 11m.

Bathurst Island series

Collagen from mammal bone excavated from two sites near tip of Markham Point, Bathurst. Samples coll and subm by J W Helmer.

SFU-87. **1520 ± 200**
 $\delta^{13}C = -17.7\%$

Collagen from musk-ox bone and antler excavated at longhouse site, QiLf-25, + 7m.

SFU-81. **2330 ± 120**
 $\delta^{13}C = -19.5\%$

Collagen from musk-ox bone excavated from tent-ring site, QiLf-4, + 11 to 12m.

*Alberta***SFU-119.****2820 ± 80** $\delta^{13}C = -19\text{‰}$

Collagen from bison bone excavated at Strathcona Science Park site, FiPi-29, Edmonton (53° 33' N, 113° 22' W). Bone is from bison-processing area of Middle Prehistoric lithic workshop and habitation site. Sample subm to date earliest occupation of site; coll and subm by Jon Driver, Dept Archaeol, Simon Fraser Univ. *Comment* (JD): date probably too late for earliest (Oxbow) component due to mixing and compressed stratigraphy.

*Ontario***Fox Lake Project series**

Charcoal from CdHk-3 site, Ontario (46° 36' 45" N, 81° 43' 45" W). Samples coll and subm by Christopher Hanks, Dept Sociol and Anthropol, Univ British Columbia. See also Hanks (ms) for additional information.

SFU-151.**690 ± 180**

Charcoal from feature believed to be hearth from Woodland period.

SFU-152.**170 ± 120**

Charcoal to date base of culture-bearing podzol layer.

SFU-153.**370 ± 90**

Charcoal from feature believed to be hearth of Woodland origin.

SFU-154.**610 ± 80**

Charcoal from feature believed to be hearth, assoc with single body sherd of ceramic vessel.

SFU-155.**1450 ± 250**

Charcoal from feature believed to be hearth with Late Woodland assoc.

SFU-169.**480 ± 260**

Charcoal from feature related to Woodland period occupation.

SFU-170.**1320 ± 700**

Charcoal from feature consisting of reduction flakes made of gray-wacke. *Comment*: sample too small for base rinse.

SFU-171.**1840 ± 350**

Charcoal subm to date base of culture-bearing podzol layer.

Peace River Series I

Charcoal and bone from HbRf-62 site (56° 11' 47" N, 120° 55' 35" W), from low terrace at confluence of Peace and Moberly Rivers, + 426m. Samples coll and subm by Diana Alexander for Peace River Archaeol Proj, Dept Archaeol, Simon Fraser Univ.

SFU-165. 3750 ± 280

Charcoal from 20 to 25cm below surface, subm to date assoc lithic and bone material.

SFU-166. 3650 ± 300
 $\delta^{13}C = -20.4\text{‰}$

Collagen from antler 25 to 30cm below surface. Sample subm to date assoc lithic concentration.

Vallican Series I

Charcoal from DjQj-1 site (49° 33' 23" N, 117° 39' 15" W), from 2nd and 3rd major terrace above Slocan R, 0.7km NW of confluence of Little Slocan and Slocan Rivers. Village and burial site with 2000 yr min occupation. Samples date several cultural depressions; coll and subm by Gordon Mohs.

SFU-175. 260 ± 100

Charcoal from base of matrix containing Late Prehistoric material 15 to 20cm below surface. Sample subm to date max age of Late Prehistoric deposits and assoc quartz crystal microblade core.

SFU-176. Modern

Charcoal from hearth 27 to 29cm below surface in circular cultural depression. Sample subm to date depression and assoc artifacts.

SFU-177. 1250 ± 120

Charcoal from burial cavity 20 to 30cm below surface. Sample subm to date burial.

SFU-178. 260 ± 200

Charcoal from hearth 55 to 60cm below surface. Sample subm to determine amount of embankment slumpage and river erosion at site.

SFU-179. 480 ± 200

Charcoal from concentration of faunal remains 3 to 6cm below surface. Sample subm to date latest occupation of cultural depression during Late Prehistoric period.

SFU-180. 1040 ± 110

Charcoal from black soil matrix within circular house-pit depression. Sample subm to date occurrence of circular house-pit type.

SFU-181. 1780 ± 80

Charcoal from hearth 45 to 65cm below surface. Sample subm to date earliest occupation of cultural depression.

SFU-182. 1170 ± 260

Charcoal from hearth 58 to 80cm below surface. Sample subm to establish intermediate date of occupation of cultural depression.

SFU-183. **860 ± 400**

Charcoal from soil matrix 85 to 87cm below surface in cultural depression. Sample subm to date occupation of depression.

SFU-184. **790 ± 150**

Charcoal from hearth 25 to 29cm below surface in rectangular depression. Sample subm to date period of Kutenai occupation of site.

SFU-185. **220 ± 100**

Charcoal from soil matrix 13 to 25cm below surface in cultural depression. Sample subm to date latest occupation.

SFU-186. **980 ± 250**

Charcoal from hearth 13 to 20cm below surface in cultural depression. Sample subm to determine min age that small circular depressions were used in Slocan area.

SFU-187. **Modern**

Charcoal from hearth 5 to 20cm below surface in cultural depression. Sample subm to date upper component of depression.

SFU-188. **700 ± 110**

Charcoal from soil matrix 23 to 30cm below surface in circular house-pit depression. Sample subm to date upper component of house-pit and assoc midden deposits.

SFU-189. **1020 ± 150**

Charcoal from soil matrix 52 to 54cm below surface in house-pit depression. Sample subm to date lower component of house-pit and assoc tools.

SFU-190. **1860 ± 150**

Charcoal from hearth 90 to 100cm below surface in house-pit depression. Hearth feature probably antedates construction of house-pit; sample thus establishes max date of use of house-pit.

SFU-191. **750 ± 90**

Charcoal from hearth 47 to 52cm below surface located centrally within platform excavated into terrace embankment. Sample subm to date occupation of feature.

SFU-192. **110 ± 80**

Charcoal from hearth 25 to 35cm below surface in platform excavated into terrace. Sample subm to date utilization of feature.

SFU-193. **700 ± 100**

Charcoal from lowermost component of house-pit depression. Sample subm to date earliest occupation of house pit.

SFU-194. **760 ± 140**

Charcoal from base of platform 40 to 43cm below surface. Sample subm to date utilization of feature.

SFU-198. **2210 ± 180**

Charcoal from hearth 44 to 50cm below surface in circular house-pit depression. Sample subm to date use of house pit.

B. Tanzania

Tanzania Series I

Charcoal from DkBl1 sites. Samples coll and subm by F T Masao, Nat Mus Tanzania, Dar Es Salaam.

SFU-137. **2020 ± 360**

Charcoal from 1.1m below surface from gravel layer in silty matrix. Sample subm to date assoc lithic artifacts.

SFU-138. **2290 ± 100**

Charcoal from 0.8m below surface in layer of compacted silty clay. Sample subm to date assoc microlithic artifacts.

SFU-139. **2230 ± 160**

Charcoal from 0.8m below surface in layer of compacted silty clay. Sample subm to date assoc microlithic artifacts.

SFU-140. **2590 ± 120**

Charcoal from 70 to 80cm below surface in layer of silty gravel. Sample subm to date assoc microlithic and megalithic artifacts.

C. Fiji

SFU-118. Rotuma **1000 ± 100**
 $\delta^{13}C = -17.5\%$

Collagen from human bone excavated from site Rot 2-9, Risumu, Dist Oinafa (12° 27' 28" S, 177° 21' 34" E). Sample from 90 to 100cm below surface dates site on Rotuma where first Tongan immigrants landed. Sample coll and subm by Richard Shutler, Jr, Dept Archaeol, Simon Fraser Univ. *Comment (RS)*: according to Rotuman mythology, Risumu is site where first Tongans landed. Therefore, it is probable that this sample dates Tongan arrival.

REFERENCES

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