

S. J. McKee Archives



Crepelee locale Radiocarbon Report I

<http://archives.brandonu.ca/en/permalink/descriptions11968>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub sub series

Series Number: 1.5.1

Accession Number: 1-2010

GMD: multiple media

Date Range: 2003-2008

Physical Description: 3 pages

Material Details: Radiocarbon date reports have been scanned in multi-page PDF files.

History /

Biographical:

Crepelee locale Radiocarbon Dates. C14 report by IsoTrace Laboratory for Crepelee site 2005 XU 8.

From 2003 to 2008 field work took place at the Crepelee locale with 75 - 1m x1m units excavated.

To help establish the cultural sequence at the locale Radiocarbon dates were obtained from the three sites in the Crepelee locale.

Radiocarbon dating

The technique of radiocarbon dating was developed by Willard Libby and his colleagues at the University of Chicago in 1949.

Radiocarbon dating is used to estimate the age of organic remains from archaeological sites. Organic matter has a radioactive form of carbon (C14) that begins to decay upon death. C14 decays at a steady, known rate of a half life of 5,730 years. The technique is useful for material up to 50,000 years. Fluctuations of C14 in the atmosphere can affect results so dates are calibrated against dendrochronology. Radiocarbon dates are calibrated to calendar years.

Dates are reported in radiocarbon years or Before Present. Before Present refers to dates before 1950. The introduction of massive amounts of C14, due to atomic bomb and surface testing of atomic weapons, has widely increased the standard deviation on all dates after A.D. 1700 causing these dates to be unreliable.

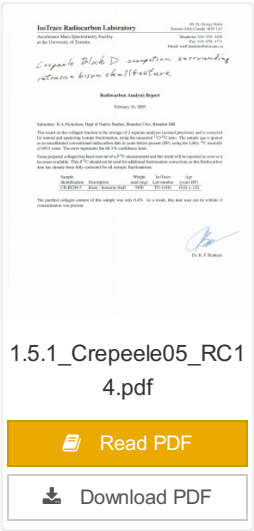
Accelerated mass spectrometry can more accurately measure C14 with smaller samples and can date materials to 80,000 years.

Scope and Content:

Sub sub series contains radiocarbon dates from: Crepelee, Sarah and Graham sites.

Name Access: Crepelee locale Radiocarbon Report I

Subject Access: Archaeology
Crepelee locale
Crepelee locale Radiocarbon Dates



Atkinson site DiMe-27 2003

<http://archives.brandonu.ca/en/permalink/descriptions12081>

Part Of:	RG 7 Beverley Nicholson fonds
Description Level:	Sub sub series
Series Number:	2.1.1
Accession Number:	1-2010
GMD:	multiple media
Date Range:	2003
Material Details:	Field journals have been scanned in multi-page PDF files. Artifact catalogues are PDF files in spreadsheet format. Photographs are in jpeg format.

History /

Biographical:

Based on the results of the testing in 2002 and the radiocarbon date of 6,500 years before present, further excavation was warranted at the Atkinson site. In 2003 Field Chief Holly Alston and crew Shayne Kolesar and Andrea Richards opened a 42m test excavation (units 1 - 4) that included the hearth area.

The site area was covered with a huge sand dune that was slowly sliding into the river as the supporting bank eroded away. As the dune was removed a late woodland camp was found at the dune interface and a large chunk of charcoal dated this occupation to 440+/-60 B.P. cal.1440A.D. This indicated that the dune was a relatively late incursion over the site. This occupation is likely connected to subsequent testing to the east in 2005 that came to be known as Atkinson II.

Methodology:

The crew began shovel shaving the upper strata with the intention of establishing an arbitrary datum when artifacts were encountered or when a level 25cm above the hearth was reached. At 25cm above the hearth an arbitrary surface datum was established and excavation in 5cm levels began. The overbank deposited matrix was a dense, compacted silt clay and it was necessary to soak the excavated materials in buckets and then water screen the material with a high pressure pump over ¼ inch hardware cloth.

Lithic flakes were found at 10cm below datum, above the hearth level. In the next level, large bone, a broken projectile point and additional flakes were found. Increasing amounts of bone and lithic flakes were found as the excavation continued through levels 3 to 5. The top of the hearth was identified at 28cm below datum, below a 2cm layer of well-sorted sand. This sand layer was confined to a small area directly overlying the hearth. It was considered to be a deliberate quenching of the hearth.

After the conclusion of excavating level 6 the hearth was profiled and photographed. The charcoal and ash layer of the hearth was shown to be directly below the sand layer. Levels 6 and 7 revealed a bison bone bed that was consistent with primary and secondary butchering including elements from the vertebral column and appendicular skeleton. Two additional Gowen (Mummy Cave Series) projectile points were also recovered adjacent to the hearth. Level 8 continued to produce larger amounts of bone and many lithic flakes. Level 9 produced a few bone fragments and a small number of lithic flakes. At the conclusion of the excavations, the crew shoveled sand down from the dune to protect the site over winter and through any subsequent spring flooding.

Scope and Content:

Sub-sub-sub series contains: Summary information of field methodology, number and coordinates of excavations, personnel and their staff position; Field journals are daily records of recoveries, features and activities at the site; Site records include excavation level and unit summaries, feature sheets, profiles; sample records and maps; Artifact catalogues are lists and identifications of all artifacts recovered; Photographs are of excavation units, features, the landscape and personnel.

Name Access: Atkinson site 2003
Subject Access: Archaeology
 North Lauder locale
 Atkinson site DiMe-27
 Atkinson site 2003