

# S. J. McKee Archives

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## Graham site DiMe-30

<http://archives.brandonu.ca/en/permalink/descriptions11886>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 1.4

Accession Number: 1-2010

GMD: multiple media

Date Range: 2004-2008

History /

Biographical:

The Graham site is located adjacent to the Crepeele site towards the western end of the Crepeele locale. The Graham site was initially designated as a separate site early in the testing of the Crepeele locale due to what appeared to be a distinction between Early and Late Woodland ceramics. Subsequent testing has shown that this distinction was premature and that the cultural mosaic represented in the western section of the Crepeele locale may not readily separate in this manner. However, due to the records management that was already in place, the original separate designations have been retained.

### Environment

Ground cover is a mosaic of aspen poplar groves and patches of mesic grass prairie. Excavation profiles indicate that this has been the situation since early precontact times, although as local climatic conditions change (primarily rainfall), the relative size of these areas and where they may have occurred also changed. The soil is aeolian sand sheet derived from delta outwash deposits along the western edge of glacial Lake Hind. The present topography is a variable dune landscape reworked by aeolian activity that creates a mosaic of microhabitats. These include forested patches in the lee of sand dunes grassland on the southern and western exposures and small damp lowlands that support balsam poplar, willows, red osier dogwood, high-bush cranberry and water birch. There is no permanent water source in the area although a small seasonal stream meanders through a damp lowland along the eastern margin of the Crepeele locale.

Excavations at the Graham site took place from 2004 to 2008. Analyses of the recoveries shows that, with two exceptions, all of the occupations that have been tested produced bison foetal bone. The presence of foetal bison is a strong indicator of wintering occupations...The absence of foetal in some area does not necessarily indicate warm season occupations since these excavation series are small and the absence could be due to sample error or peritoxic factors, such as scavenging of the fragile bone by dogs or other carnivores.

From this evidence the Graham site has been interpreted as being primarily a wintering area. This is consistent with the lack of surface water (snow would serve as a substitute in winter) and the abundance of wood for fuel – a critical requirement for winter occupation. Cultural occupations date from Mortlach circa 250 B.P to woodland circa 580 B.P.

### Scope and Content:

Sub-series has been divided into sub sub series including: Graham 2004, Graham 2005, Graham 2006 and Graham 2008

Name Access: Graham site DiMe-30

Subject Access: Archaeology  
Crepeele locale  
Graham site DiMe-30



## Crepeelee locale Radiocarbon Dates

<http://archives.brandonu.ca/en/permalink/descriptions11966>

Part Of: RG 7 Beverley Nicholson fonds  
Description Level: Sub-series  
Series Number: 1.5  
Accession Number: 1-2010  
GMD: textual records  
Date Range: 2003-2008  
Material Details: Radiocarbon date reports have been scanned in multi-page PDF files.

### History /

#### Biographical:

The Crepeelee locale is located within the larger Lauder Sandhills area, located in southwestern Manitoba. The area is a complex region of high biodiversity made up of stabilized sand dunes and wetlands that encourage the development of mixed forest and grass prairie. This area provided a variety of subsistence resources for pre-European hunter-gatherers. At the present time the grass prairie is now farm land but the areas of vegetated sand dunes have not been cultivated and have revealed numerous pre-contact archaeological sites.

Archaeological surveying was conducted in 2003. The results of the 2003 Casselman survey showed over 300 test units contained cultural material and indicated several areas for further examination including the Crepeelee site DiMe-29, Sarah site DiMe-28 and Graham sites DiMe-30.

From 2003 to 2008 field work took place at the locale with 75 - 1m x1m units excavated. The Crepeelee locale is a complex region of high biodiversity made up of stabilized sand dunes and wetlands that encourage the development of mixed forest and grass prairie. This area provided a variety of subsistence resources for pre-European hunter-gatherers. At the present time the grass prairie is now farm land but the areas of vegetated sand dunes have not been cultivated and have revealed numerous pre-contact archaeological sites.

To help establish the cultural sequence at the locale Radiocarbon dates were obtained from the three sites in the Crepeelee 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: Crepeelee, Sarah and Graham sites.

Name Access: Crepeele locale Radiocarbon Dates  
Subject Access: Archaeology  
Crepeele locale  
Crepeele locale Radiocarbon Dates



## ARCH 2: North Lauder locale

<http://archives.brandonu.ca/en/permalink/descriptions12079>

Part Of: RG 7 Beverley Nicholson fonds  
Description Level: Series  
Series Number: 2  
Accession Number: 1-2010  
GMD: multiple media  
Date Range: 1997 to present

History /

Biographical:

### ARCH 2: North Lauder Locale

The North Lauder locale has a long archaeological and geological history that is important for understanding the forces that shaped the region. Archaeological research in the locale shows that the area has been occupied by humans for at least the past 6,500 years. Environmental forces provided an area of diverse resources that attracted early peoples.

#### Environment of the Lauder Sandhills

The North Lauder locale is part of the greater Lauder Sandhills area. The glaciers that covered this region began to recede approximately 11,000 years ago leaving a large lake known as glacial Lake Hind. The Souris River, the Lauder Sandhills and the Oak Lake Aquifer are remnants of the environmental and geological forces that shaped the region.

The Lauder Sandhills region is characterized by a landscape of sand sheets and stabilized sand dunes interspersed with a variety of wetlands. This complex topographic and hydrological situation favoured the development of an island mosaic of mixed forest, wetland and meadow, surrounded by mixed grass prairie. The result was a large, isolated ecotone which provided a rich variety of subsistence resources for hunter-gatherers.

#### Research in the Lauder Sandhills

Archaeologists from Brandon University have been conducting research in the Lauder Sandhills since 1991. Research in the North Lauder locale has focused on the Atkinson site, a 6,500 year old hunter-gatherer site and Flintstone Hill.

#### The Atkinson site

The Atkinson site is one of the oldest excavated sites in Manitoba and has been Radiocarbon dated to 6,500 years before present. The Atkinson site is located on the bank of the Souris River and was discovered when a hearth (fire pit) was seen eroding out of the bank. Based on the date of the site and the kind of lithics (stone tools) present it is considered a Gowen occupation. The Atkinson site is evidence that bison hunters were active on the northern plains at a very early date. Similar sites have also been found on the High Plains in the U.S. and are referred to as the Mummy Cave Complex.

The Atkinson Site is of great importance as it is the first undisturbed site of this type to be excavated in Manitoba and extends the range of these sites south and east from the type-sites

in central Saskatchewan.

#### Flintstone Hill

The geomorphology of the glacial Lake Hind Basin over the past 11,000 years is known primarily through the study of a cut bank along the Souris River. Flint Stone Hill contains the most complete stratigraphic record for the post-glacial period on the northern plains. The site has been extensively studied by geoarchaeologists, geologists and paleoenvironmentalists over many years and their findings have contributed to our understanding of the region.

The North Lauder locale Borden designations of Atkinson site DiMe-27 and Flintstone Hill site DiMe-26.

#### Borden System

Archaeological sites in Canada are identified by the Borden system, which is a uniform site designation system. The country is divided into grids based on latitude and longitude in blocks of 10 x 20 minutes. The first 4 letters indicate the block and the following numbers indicate the actual site. For example the area of the Lauder Sandhills in southwestern Manitoba is identified by the letters DM and the North Lauder locale within that area is DiMe. The Atkinson site is DiMe-27 and the Flintstone Hill site DiMe-26. As new sites are discovered they will be numbered sequentially.

#### Scope and Content:

The Series has been divided into two sub-series, including (1) Atkinson site DiMe-27 and Flintstone Hill site DiMe-26.

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

#### Arrangement:

Series is arranged by site and by year of field work.



## Atkinson site - DiMe-27

<http://archives.brandonu.ca/en/permalink/descriptions12080>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 2.1

Accession Number: 1-2010

GMD: multiple media

Date Range: 2003-2006

History /

Biographical:

The Atkinson site was named for the landowners Ken and Karen Atkinson who were very helpful to the archaeology and geoarchaeology crews that worked at the site. Their support made the project possible.

The Atkinson site story begins with the discovery of a charcoal lens eroding from the north bank of the Souris River in the summer of 2002. Study of Cultural Adaptations on the Prairie Ecozone (SCAPE) project geoarchaeologist Dr. Garry Running was exploring the stratigraphic layering in the bank when he noted the lens and reported it to Dr. Bev Nicholson. Upon closer examination, a tiny pressure flake was observed on the lens exposure and it was decided to collect a charcoal sample for radiocarbon dating.

The resulting date of 5250B.P. cal. 4225 B.C. placed the site in the early Archaic period. A second date on bone collagen of 5580B.P. cal. 4500 B.C. confirmed the earlier date and gave an averaged date of circa 4400 B.C or 6,500 years ago.

The Atkinson site is one of the oldest excavated sites in Manitoba. Based on the date of the site and the kind of lithics (stone tools) present it is considered a Gowen occupation. The Atkinson site is evidence that bison hunters were active on the northern plains at a very early date. Similar sites have also been found on the High Plains in the U.S. and are referred to as the Mummy Cave Complex.

The Atkinson Site is of great importance as it is the first undisturbed site of this type to be excavated in Manitoba and extends the range of these sites south and east from the type-sites in central Saskatchewan. Based on the date and sample evidence further excavations were conducted by Dr. Nicholson's team. in 2003, 2004 and 2006.

Scope and Content:

Sub series has been divided into three sub sub series including: (1) Atkinson 2003, (2) Atkinson 2004; (3) Atkinson 2006

Name Access: Atkinson site DiMe-27

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



## Lovstrom Block C - summary

<http://archives.brandonu.ca/en/permalink/descriptions12517>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 3.4

Accession Number: 1-2010

GMD: multiple media

Date Range: 1987

History /

Biographical:

Block C was situated in sparse oak forest with an understory of saskatoon, hazelnut and a thick ground cover of poison ivy and sarsaparilla. The block measured 3m and 3m and contained nine excavation units. All units were excavated to 35cm below surface. The soil horizons were much like the other blocks, except for a rusty brown stain in the first level, giving the upper black loam a mottled appearance. The brown patches were clay mixed with loam and were harder than the surrounding matrix. No definitive interpretation of these phenomena was attempted but this effect may be the result of natural brush or forest fires. Under the 5cm so d/humus (Ah) layer, the loam horizon extended approximately 5cm – 25 cm below surface, and averaged 20 cm thick. Bone was concentrated within this horizon between 10 cm – 20 cm below surface.

Block C was notable for its concentrations of articulated bison bone. Most noteworthy was an articulated unit composed of lumbar vertebrae, pelvis, and sacrum. Several thoracic vertebra/proximal rib end concentrations were also recovered. There were more vertebrae and rib sections recovered in the units in proportion to other bones. A few sherds, some debitage and a single Prairie Side-Notched point fragment were among the recoveries. Based on the quantity of bone, the density of the bone layer, and the articulated butchering units the area has been interpreted as a bone midden.

Faunal material was analysed by Jessica MacKenzie for her Honours Thesis: "A reconstruction of butchering processes in Block C from the Lovstrom site DjLx-1 in Southwestern Manitoba."

Radiocarbon date: 850/115BP XU 79.

Scope and Content:

Sub-sub-sub series contains: Summary information of field methodology, number and co-ordinates 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: Lovstrom Block C - summary

Subject Access: Archaeology  
Lovstrom locale  
Lovstrom Block C



## Lovstrom Block D - summary

<http://archives.brandonu.ca/en/permalink/descriptions12540>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 3.5

Accession Number: 1-2010

GMD: multiple media

Date Range: 1987 - 1988

History /

Biographical:

Block D was wooded with oak and an understory of saskatoon and hazelnut with a thick ground cover of poison ivy and sarsaparilla. Root and rodent disturbance was extensive. Based on the recoveries from Test Unit 22 during the survey, further excavations were carried out. Two units 87 and 93 were excavated in 1987. A further four units were excavated in 1988. There appears to be a pre contact occupation and a protohistoric feature within the block.

Diagnostic lithics included a chert Plains Side-notch projectile point, and a large Woodland side-notched point. The lithic materials from Block D are primarily local cherts followed in abundance by Knife River Flint and Tongue River Silicified Sediment – both of which are exotics imported from the southwest. Faunal remains were primarily bison.

Thin-walled obliterated fabric impressed pottery with grit temper was recovered in all units. Diagnostic ceramics included two rims, one with a fabric impressed exterior and the lip notched with dowel impressions, and a second thick walled rim was fabric impressed to the lip. The ceramic wares appear to be essentially a Woodland complex with overtones of Plains influence.

RC date: 230/90 BP.

Scope and Content:

Sub-series has been divided into sub sub series including: Lovstrom Block D 1987 and Lovstrom Block D 1988.

Name Access: Lovstrom Block D - summary

Subject Access: Archaeology  
Lovstrom locale  
Lovstrom Block D





## Lovstrom Block E - summary

<http://archives.brandonu.ca/en/permalink/descriptions12567>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 3.6

Accession Number: 1-2010

GMD: multiple media

Date Range: 1987 - 1991

History /

Biographical:

This site is situated in a naturally sheltered area with a low rise to the east and south partly encircling a flat area open to the west. Present natural vegetation is an open oak forest with a light understory of saskatoon, hazelnut, poison ivy and sarsaparilla. It is situated on the till plain at the upper end of a ravine leading to Jock's Creek.

Two test units six meters apart were excavated in 1987 and produced cultural materials which warranted a block excavation, so seven contiguous 1m<sup>2</sup> units were then opened. These units proved to be very productive of cultural remains. Subsequent excavations in 1988 increased the number of excavated units to 21. In 1991 a further eight units were excavated for a total of 29 excavations and two test units. Excavations went deeper in this block than in Blocks C or B. Remains from the block included bison bone, bone tools, fire-cracked rock, ceramics, lithics including tools and debitage and a hearth. Another occupation was recovered in 1991 containing a hearth and living floor.

Radiocarbon samples have produced two distinct sets of radiocarbon dates from 1987 and 1988 excavations. There appears to be two or possibly three cultural horizons definable within this block.

An upper cultural horizon, located between 14-21 cm below surface, contains large bison bone and fire-cracked rock dating to 465/100B.P from XU 128.

A lower horizon in the 20-25 cm level contained FCR, bison bone and lithic scatter that was dated to 675/70 B.P. from XU 122 and 715/110 from XU 114.

Scope and Content:

Sub-series has been divided into sub sub series including: Lovstrom Block E 1987, Lovstrom Block E 1988 and Lovstrom Block E 1991.

Name Access: Lovstrom Block E - summary

Subject Access: Archaeology  
Lovstrom locale  
Lovstrom Block E



## Sarah site DiMe-28

<http://archives.brandonu.ca/en/permalink/descriptions11829>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 1.3

Accession Number: 1-2010

GMD: multiple media

Date Range: 2003-2004

History /

Biographical:

The Sarah site was chosen for excavation based on the results of the Casselman survey. The survey recovered significant amounts of faunal remains, some ceramics and lithics from the test pits. Excavations took place in 2003 at Crepeelee West (Units 1-5) and Crepeelee East (Units 6-9). The site was subsequently renamed the Sarah site DiMe-28. In 2004 another 9 units were excavated (Units 10-18).

Based on the recoveries it was determined that the Sarah site is a stratified site with woodland ceramics in the upper occupation and late woodland points in both of the upper occupations. These upper occupations produced abundant bison bone including foetal bone. The lower occupations produced less bone and no foetal bone, although absence of foetal bone in the lower occupations does not necessarily indicate a warm season occupation. This could be due to sample error or peritoxic factors such as scavenging of the fragile bone by dogs or other carnivores.

The dates from the Sarah site include 550+/-40 B.P.; 1430+/-80 B.P.; 2810+/-80 B.P.; 3120+/-130 B.P. The lower occupations did not yield any diagnostic materials although debitage was abundant. These occupations were most productive at the edge of the large sand dune at the southern edge of the excavations. It is assumed that the major portion of these occupations have been overridden by the dune in the past 3000 years. Heavy earthmoving equipment would be required to remove this overburden which limits the possibility of future excavation.

### Environment

The Sarah site is a large area located at the eastern end of the Crepeelee locale. Ground cover is a mosaic of aspen poplar groves and patches of mesic grass prairie. Excavation profiles indicate that this has been the situation since early precontact times, although as local climatic conditions change (primarily rainfall), the relative size of these areas and where they may have occurred also changed. The soil is aeolian sand sheet derived from delta outwash deposits along the western edge of glacial Lake Hind. The present topography is a variable dune landscape reworked by aeolian activity that creates a mosaic of microhabitats. These include forested patches in the lee of sand dunes with grassland on the southern and western exposures and small damp lowlands that support balsam poplar, willows, red osier dogwood, high-bush cranberry and water birch. There is no permanent water source in the area although a small seasonal stream meanders through a damp lowland to the east of the Sarah site.

### Scope and Content:

Sub-series has been divided into sub sub series including: Sarah 2003 and Sarah 2004,

Name Access: Sarah site DiMe-28

Subject Access: Archaeology  
Crepeelee locale  
Sarah site DiMe-28



## Casselman survey

<http://archives.brandonu.ca/en/permalink/descriptions11706>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 1.1

Accession Number: 1-2010

GMD: multiple media

Date Range: 2003-2008

History /

Biographical:

The high biodiversity and evidence of pre-European contact prompted the decision to test the Crepeelee locale. The survey was named in recognition of the Casselman family, the original landowners.

Archaeological testing began in the Crepeelee locale in May 2003 on property now owned by the Crepeelee family. The locale covers over 6 sections or approximately 3,800 acres of land in an area of stabilized sand dunes and wetlands covered with mixed forest and prairie grass. Given the terrain, the size of the crew and time constraints, an area of approximately 60 acres was chosen for the survey. The survey used the established archaeological methodology of walking the selected area and using a shovel test surveyed grid. The use of GIS technology to locate the exact test spot and record the information into a GIS database was a significant advance and was one of the advantages of the integration of multi-disciplinary techniques encouraged by the SCAPE project. Over one half of the test pits resulted in the recovery of cultural materials. The results of the Casselman survey indicated several areas for further examination including areas that became the Crepeelee, Sarah and Graham sites.

Scope and Content:

Sub sub series has been divided into five sub sub sub series including: (1) Summary information; (2) Field journals; (3) Site records; (4) Artifact catalogues; and (5) Photographs.

Name Access: Casselman survey

Subject Access: Archaeology  
Crepeelee locale  
Casselman survey



## Lovstrom Block F - summary

<http://archives.brandonu.ca/en/permalink/descriptions12617>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 3.7

Accession Number: 1-2010

GMD: multiple media

Date Range: 1988

History /

Biographical:

In 1988 four 1m<sup>2</sup> units were excavated in this Block F. The forest cover is identical to that of Block E, with an open oak forest with a light understory of saskatoon, hazelnut, poison ivy and sarsaparilla.

Underneath the litter mat (Ah) is a shallow, 15-20 cm "A" horizon of dark grey/brown silty loam with a high representation of pebble size clasts. The glacial clays, encountered at 20 cm below surface, consist of a matrix of light tan sandy clays containing rounded pebble to cobble size rocks.

The recoveries from this block consisted of a few ceramics, including Vickers Focus rim sherds, four lithic tools and a number of small bison bone fragments. There was no discernible cultural stratigraphy in the four 1m<sup>2</sup> units and the limited deposits of bone, ceramics and lithics were dispersed randomly throughout the 25 cm of cultural matrix. The lithic materials frequencies were similar to those in Block E with local cherts and KRF being the most abundant categories. A small amount of fire-cracked rock and a few large identifiable bison bones were recovered – all distributed randomly with little evidence for any pattern of clustering.

No RC dates.

### Scope and Content:

Sub-sub-sub series contains: Summary information of field methodology, number and co-ordinates 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: Lovstrom Block F - summary

Subject Access: Archaeology  
Lovstrom locale  
Lovstrom Block F



## Lovstrom Block G 1988 - summary

<http://archives.brandonu.ca/en/permalink/descriptions12628>

Part Of: RG 7 Beverley Nicholson fonds  
Description Level: Sub-series  
Series Number: 3.8  
Accession Number: 1-2010  
GMD: multiple media  
Date Range: 1988  
History /  
Biographical:

In 1988 four units were excavated in Block G. The vegetation is similar to other areas in the locale with an open oak forest with a light understory of saskatoon, hazelnut, poison ivy and sarsaparilla.

Excavations recovered artifacts between 0 cm – 15 cm b.s. The cultural deposits are very shallow and it is quite possible that what appears to be a single occupation may in fact represent multiple occupation compressed deposits as a result of deflation or the lack of sedimentation in this raised area. This latter view is supported by the ceramics which appear to be a mixture of Blackduck and Vickers Focus wares.

The frequency and distribution of cultural material from block G contrasts with that of other sites in the locale. While the diagnostic materials are similar, the nature of the background debris and the associated lithic assemblage suggests that this area was utilized for a different set of activities.

Unlike Blocks E and H, there is very little in the way of ceramics, fire-cracked rock or bison bone, yet a significant amount of lithic debitage and six Plains/Prairie Side-notched projectile points were recovered. No unifaces or scrapers were recovered. This may be an area where activities such as manufacture and hafting of projectile points; hunting activities, butchering and refuse disposal took place.

No RC dates were taken.

### Scope and Content:

Sub-sub-sub series contains: Summary information of field methodology, number and co-ordinates 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: Lovstrom Block G 1988 - summary  
Subject Access: Archaeology  
Lovstrom locale  
Lovstrom Block G



## Lovstrom Block H - summary

<http://archives.brandonu.ca/en/permalink/descriptions12638>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 3.9

Accession Number: 1-2010

GMD: multiple media

Date Range: 1988 - 1991

History /

Biographical:

The vegetation in block H is similar to other areas in the locale with an open oak forest with a light understory of saskatoon, hazelnut, poison ivy and sarsaparilla.

The excavations of the eight 1m<sup>2</sup> units in 1988 resulted in the recovery of over 650 ceramic fragments including 20 rim sherds from at least four vessels, a grooved maul, fire-cracked rock, lithic debitage and a reworked Avonlea projectile point. A large amount of bison bone, including a number of axial elements and a fragmented skull were also recovered.

Based on the 1988 recoveries at the site further excavations took place in 1991. Nine excavation units were opened next to the previous excavations. Another 250 ceramic sherds were recovered in 1991. Nine vessels have been identified based on rim sherds. Vickers Focus and Woodland vessels have been identified and two vessels similar to Scattered Village Complex were recovered.

The lithic material assemblage is intermediate between Blocks G and E with KRF being the most frequent material category followed by local cherts.

Two features, a hearth and a curvilinear arrangement of rock were recovered. The high numbers of ceramic fragments suggests a habitation area, rather than hunting or butchering behavior. However, the separation of occupations at the site is difficult to establish and there may be different uses of the site by successive occupations.

Radiocarbon dates from this block indicate two occupations separated in time by some 300 years. XU 181 – 405/110 BP and XU 184 – 780/110 BP.

Scope and Content:

Sub-series has been divided into sub sub series including: Lovstrom Block H 1988 and Lovstrom Block H 1991.

Name Access: Lovstrom Block H - summary

Subject Access: Archaeology  
Lovstrom locale  
Lovstrom Block H



## Flintstone Hill - DiMe-26

<http://archives.brandonu.ca/en/permalink/descriptions12283>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 2.2

Accession Number: 1-2010

GMD: multiple media

Date Range: 1997-2000

History /

Biographical:

Flintstone Hill is located on the north bank of the Souris River. It is a deeply stratified lacustrine, fluvial and aeolian soil profile that has been exposed by the river through stream-bank erosion. This section is thought to be the most complete middle to late Holocene exposure on the northeastern plains. While the value of the site is primarily for paleo-environmental research and reconstruction, cultural deposits have been identified at the site. Local collectors have picked up lithic materials as they eroded out of the bank for the past several decades and it was they who had named the site. Mr. Bruce Timms from Lauder first drew the Flintstone Hill site to the attention of Dr. Nicholson of Brandon University.

During the mid 1990's to the early 2000's archaeological testing took place on Flintstone Hill. In 1998, an archaeological field crew dug a series of overlapping trenches down the slope of the profile and produced a schematic drawing. A peat layer at the bottom of this profile, dated from the top at 9,400 RCY and at the bottom to 10,400 RCY, has provided details of marsh plant and insect communities at this time.

Subsequent archaeological investigations at the site recovered several cultural deposits including: a hearth dating to 3250+/-70 R.C.Y. (BETA 109529); a butchered atlas bone 4090+/-70 R.C.Y. (BETA 109990); and bone fragments accompanied by Swan River Chert and Knife River Flint lithic flakes 5350+/-50 (BETA 109530). While no diagnostic tools were recovered, these dates suggest that this occupation, which is contemporary with the Atkinson site, may be a Gowen occupation.

Extensive paleo-environmental research has been conducted at the site. Dr. Running, a geomorphologist from the University of Wisconsin – Eau Claire, participated in the Study of Cultural Adaptations in the Prairie Ecozone (SCAPE) Project and he and his students tested the site for several years. He was joined in this effort by Dr. Havholm, Dr. Boyd, Dr. Wiseman, Dr. Beaudoin, and other SCAPE researchers in the interpretation of the paleo-environment of the Glacial Lake Hind basin. The following article is recommended reading.

Running, Garry L., Karen G. Havholm, Matt Boyd and Dion J. Wiseman  
2002 Holocene Stratigraphy and Geomorphology of Flintstone Hill, Lauder Sandhills, Glacial Lake Hind Basin, Southwestern Manitoba. *Geographie Physique et Quaternaire* 56(2-3):291-303.

Scope and Content:

Sub series has been divided into two sub sub series including: (1) Flintstone Hill 1997 (2) Flintstone Hill 1998-2000

Name Access: Flintstone Hill - DiMe-26

Subject Access: Archaeology  
North Lauder locale  
Flintstone Hill - DiMe-26



## North Lauder locale Radiocarbon Dates

<http://archives.brandonu.ca/en/permalink/descriptions12326>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 2.5  
Accession Number: 1-2010  
GMD: textual records  
Date Range: 1997-2000  
Material Details: Radiocarbon date reports have been scanned in multi-page PDF files.

History /

Biographical:

The North Lauder locale has a long archaeological and geological history that is important for understanding the forces that shaped the region. Archaeological research in the locale shows that the area has been occupied by humans for at least the past 6,500 years. Environmental forces provided an area of diverse resources that attracted early peoples.

Archaeologists from Brandon University have been conducting research in the North Lauder locale that has focused on the Atkinson site, a 6,500 year old hunter-gatherer site and Flintstone Hill.

The geomorphology of the glacial Lake Hind Basin over the past 11,000 years is known primarily through the study of a cut bank along the Souris River. Flintstone Hill contains the most complete stratigraphic record for the post-glacial period on the northern plains. The site has been extensively studied by geoarchaeologists, geologists and paleoenvironmentalists over many years and their findings have contributed to our understanding of the region.

Radiocarbon dates were obtained from the Atkinson site and Flintstone Hill.

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: the Atkinson site and Flintstone Hill.

Name Access: North Lauder locale Radiocarbon Dates

Subject Access: Archaeology  
North Lauder locale  
North Lauder locale Radiocarbon Dates

ARCH 3: Lovstrom locale

<http://archives.brandonu.ca/en/permalink/descriptions12406>





Part Of: RG 7 Beverley Nicholson fonds  
Description Level: Series  
Series Number: 3  
Accession Number: 1-2010  
GMD: multiple media  
Date Range: 1985 to 1991

#### History /

#### Biographical:

The Lovstrom locale first came to the attention of Dr. Nicholson through conversations with landowners Mr. and Mrs. Herb Lovstrom in 1985. Lovstrom is a multi-component archaeological locale located 25km south of Brandon overlooking the Souris River channel. The landowner's surface collection and the presence of bone and artifacts in a cultivated field indicated the presence of one or more sites.

Limited testing was conducted in 1985 and 1986, followed by major excavations in 1987, 1988 and 1991. Eight sites of block excavations with a total of 132 1m<sup>2</sup> excavation units were completed. The locale area extends approximately 500m north from the edge of the Souris Valley escarpment and over 200m east from the Jock's Creek escarpment.

Physical and biological environment As has been noted above, the locale is bounded on the south by the Souris channel and on the west by the incised channel of Jock's Creek and a till plain extends to the north and the east. This plain is characterized by buff colored glacial till with numerous rocks embedded in the surface. Surrounding these rocky knolls are dark-soil hollows where the various cultural occupations are found. The depth of the topsoil layer suggests a long term grassland cover with the present oak forest likely developing in historic times due to the elimination of bison grazing and the controlling of prairie fires in late historic times. A small cleared patch of farmland is found within the boundaries of the locale area. This area has provided a substantial surface collection of artifacts.

Present vegetation in the area is a mosaic of aspen/oak forest groves and mesic grass prairie that includes introduced species such as brome grass. In poorly drained areas, willow and red osier dogwood are present. The Lovstrom locale is found in a forested area dominated by oak with an under story of saskatoon, chokecherry, pin cherry, and hazelnut brush. Poison ivy is abundant as well as sarsaparilla.

The major faunal resources in Precontact times would have been bison, with elk and mule deer playing a minor role. Antelope may have been present also. Small animals included snowshoe hare, cottontails, porcupines and beaver. Canids, including wolf, coyote, fox and domesticated dog were present, as well as mustelids such as badger, mink, and weasel. Fragments from a fisher were also recovered in the excavations.

#### Summation.

The Lovstrom locale has eight sites. The sites were designated and excavated as Blocks A, B, C, D, E, F, G and H. Many of the sites are multi-occupations.

The Vickers materials are primarily confined to Blocks D, E, F, G and H. Vickers Focus materials overlie Blackduck/Duck Bay materials. Blackduck and Duck Bay materials are found in the lower levels of all excavation blocks and in most test units. The Vickers occupations at the Lovstrom locale, based upon ceramic wares and an overlapping of C14 dates, appear to have been contemporary with the Lowton type site to the east, near Belmont. A small protohistoric occupation was identified overlying part of Block D. Faunal remains are abundant with bison clearly dominating the assemblages. Lesser amounts of canid are present as well as small mammals including beaver, hare and mustelids. Small amounts of avian species are also present.

#### Publications

Publications

Nicholson, B.A.

2011 The Role of Pocket Gophers (*Thomomys talpoides*) in Restructuring Stratigraphic Relationships at the Lovstrom Site. *Canadian Journal of Archaeology* 35:323-331.

Nicholson, Bev, Scott Hamilton, Matthew Boyd and Sylvia Nicholson

2008 A Late Plains Woodland Adaptive Strategy in the Northern Parklands: the Vickers Focus Forager-Horticulturists. Invited Paper for Papers in Northeastern Plains Prehistory, eds. Michael G. Michlovic and Dennis L. Toom, *North Dakota Journal of Archaeology* Vol. 8:19-34.

Nicholson, Bev and Scott Hamilton

2001 Cultural Continuity and Changing Subsistence Strategies During the Late Precontact Period in Southwestern Manitoba. *Canadian Journal of Archaeology* 25:53-73.

Nicholson, Bev

1996 Plains Woodland Influx and the Blackduck Exodus in South-Western Manitoba During the Late Precontact Period. *Manitoba Archaeological Journal* 6(1):69-85.

Nicholson, Bev and Mary Malainey

1991 Report on the 1991 Field School Excavations at the Lovstrom Site (DjLx-1), Southwestern Manitoba. *Manitoba Archaeological Journal* 1(2): 51-93.

Nicholson, Bev and Jane Gibson

1990-91 Lovstrom Site Field Report, 1987 Excavations. *Saskatchewan Archaeology* 11&12:46-68.

Nicholson, Bev and Ian Kuijt

1990 Field Report and Interpretations of the 1988 Archaeological Excavations at the Lovstrom Site (DjLx-1) in Southwestern Manitoba. *North Dakota Journal of Archaeology* 4:166-205.

Nicholson, Bev

1990 Ceramic Affiliations and the Case for Incipient Horticulture in Southwestern Manitoba. *Canadian Journal of Archaeology* 14:33-60.

Nicholson, Bev

1986 The Lovstrom Site: Culture Contact in Prehistory. *Manitoba Archaeological Quarterly* 10(1):35-71.

Scope and Content:

The Series has been divided into nine sub-series, including (1) Survey (2) Block A; (3) Block B (4) Block C; (5) Block D; (6) Block E; (7) Block F; (8) Block G; (9) Block H

Name Access: Lovstrom locale

Subject Access: Archaeology  
Lovstrom locale

Arrangement:

Series is arranged by site/block and by year of field work.



## Lovstrom survey

<http://archives.brandonu.ca/en/permalink/descriptions12407>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 3.1

Accession Number: 1-2010

GMD: multiple media

Date Range: 1985-1986

History /

Biographical:

The Lovstrom surface collection came from small fields cleared within, and adjacent to, the major portions of the site which were excavated. The Lovstroms initial collection has since been added to by field personnel from Brandon University. The initial collections consisted of lithics and ceramics. A collection of faunal remains from the cultivated area was made by a Brandon University zooarchaeology class in 1986 which yielded specimens of elk, canid, mussels, and sucker, in addition to an expected abundance of bison. Since these materials were in a surface context, it may be that some of the faunal remains were historic.

The high biodiversity and evidence of pre-European contact prompted the decision to test the Lovstrom locale. Nine 1m<sup>2</sup> units were excavated in 1985 and, in 1986, an additional 15 1m<sup>2</sup> units were excavated for a total of 24 test units. This testing indicated the presence of a large precontact locale with lithics, woodland ceramics and large amounts of reasonably well-preserved faunal materials.

The lithics indicated a late Prehistoric occupation (Nicholson 1986:35). However, the ceramics were more useful in that they identified the presence of Late Woodland cultures (Blackduck and Duckbay) and a single Middle Missouri vessel. It is believed that the Middle Missouri vessel was imported since the paste and construction/decorative technology differ distinctively from that of all other vessels recovered from the site. It was on the basis of an examination of these surface finds that the decision to test the Lovstrom site was made. These test excavations were conducted during the summers of 1985 and 1986.

Field investigations through shovel tests, excavation units, and examination of rodent mounds, indicated that the cultural deposits at the Lovstrom locale extend approximately 500m north from the edge of the Souris channel and eastward for over two hundred meters from the escarpment along Jock's Creek. The presence of dense forest vegetation covering much of the locale, and the subsurface nature of the archaeological deposits obscured surface indications.

Radiocarbon dates: Test Unit 4: 1215/320 BP and Test Unit 8 1280/190 BP

Scope and Content:

Sub-series has been divided into sub sub series including: Lovstrom survey 1985 and Lovstrom survey 1986

Name Access: Lovstrom survey

Subject Access: Archaeology  
Lovstrom locale  
Lovstrom survey



## Lovstrom Block A - summary

<http://archives.brandonu.ca/en/permalink/descriptions12451>

Part Of: RG 7 Beverley Nicholson fonds

Description Level: Sub-series

Series Number: 3.2

Accession Number: 1-2010

GMD: multiple media

Date Range: 1987

History /

Biographical:

Block A was the most southern site in the locale. The excavation block consisted of 12 contiguous 1m<sup>2</sup> units dug in a 3m x 4m rectangle. The block was the least productive of cultural materials, and bone preservation was the poorest. Under the sod, the black loam layer appeared at 5 cm below surface, and the glacial clay at 25 cm below surface. Excavators described the soil matrix as gritty and silty, and it became concrete hard when dried. The occupation or bone layer extended from 10 to 25 cm below surface and consisted of a contiguous scatter of FCR and unidentifiable large ungulate bone which was heavily processed and intensively scavenged by carnivores. Most cultural materials were recovered within this layer. Fire cracked rock (FCR) and small burnt bone fragments were present but no intact hearths or processing features were evident.

Non-cultural materials included limestone and other natural pebbles derived from the parent till. (These small limestone pebbles were apparent in the occupation layers in other blocks as well). Root and rodent disturbance was extensive throughout Block A. Most units were excavated to gravelly clay till. Nine of the twelve units were dug to level 4b, which ended at 40 cm b.s.

No further excavations were done at this site. No C14 dates were taken.

Scope and Content:

Sub-sub-sub series contains: Summary information of field methodology, number and co-ordinates 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: Lovstrom Block A - summary

Subject Access: Archaeology  
Lovstrom locale  
Lovstrom Block A



## MPE B Central Office Records

<http://archives.brandonu.ca/en/permalink/descriptions8215>

Part Of: RG 4 Manitoba Pool Elevator fonds

Description Level: Series

Series Number: MPE B

GMD: textual records

Date Range: 1923-2001

Physical Description: 16.82 m

History /

Biographical:

The structure of the Manitoba Pool Elevators from its beginning in 1925 until its restructuring in 1968 placed importance in the principle of democracy. The company was run from the local associations, the central office acting as a hub that facilitated communication between all the locals and between the locals and the selling agencies. The central office was not powerless, but important decisions or by-laws could not be made without the consent of the majority of the locals.

After the restructuring of MPE in 1968 the central office took on more responsibilities. It became the top of the administrative structure and instead of members belonging to their local elevator, they were now direct members of MPE. This administrative structure continued until the 1998 merger with the Alberta Wheat Pool to form Agricore.

Scope and Content:

Series B consists of an artificially assembled collection of Central Office records. It has been divided into the following sub-series: (1) Central Office minute books; (2) Documents; (3) Local Association Minutes; (4) Local association financial statements; (5) District and Sub-district records; (6) Circulars; (7) Annual reports; (8) Speeches & Addresses; (9) Correspondence; (10) Broadcasts; (11) General Reports; (12) Indexes; (13) Summary of Association Operations; (14) Acquisitions; (15) Inter-provincial Committees; (16) Historical Topics.

Name Access: Manitoba Pool Elevators

Manitoba Wheat Pool

Central Office

Accruals: Miscellaneous sub-series has yet to be processed.

Storage Location: RG 4 Manitoba Pool Elevator fonds



## MPE B 1 Central office minute books

<http://archives.brandonu.ca/en/permalink/descriptions9105>

Part Of: RG 4 Manitoba Pool Elevator fonds

Description Level: Sub-series

Series Number: MPE B.1

GMD: textual records

Date Range: 1923 - 1997

Physical Description: 1.65 m

History /

Biographical:

The Manitoba Wheat Pool and Manitoba Pool Elevators kept and preserved a chronological record of the meetings of the MPE Board of Directors and annual delegate meetings. The minutes were typed and bound, then placed in the MPE reference library so that employees and members could access them.

Scope and Content:

This sub-series consists of minutes of organizational meetings and later meetings held by the Central Office of the Manitoba Wheat Co-operative Producers, Ltd (later known as the Manitoba Wheat Pool) from 1923 until it went under in 1934, and of meetings held by the central office of Manitoba Pool Elevators from 1925 until 1997.

Notes: Description by Jillian Sutherland (2009)

Name Access: C.H. Burnell

W.J. Parker

P.F. Bredt

Manitoba Pool Elevators

Manitoba Wheat Pool

Central Office

Subject Access: Minutes

Storage Location: RG 4 Manitoba Pool Elevator fonds

Series B: Central Office records



## MPE B 2 Documents

<http://archives.brandonu.ca/en/permalink/descriptions9106>

Part Of: RG 4 Manitoba Pool Elevator fonds

Description Level: Sub-series

Series Number: MPE B.2

GMD: textual records

Date Range: 1924-1998

Physical Description: 33 cm

History /

Biographical:

See fonds level description of RG 4 for history/bio of MPE

#### Scope and Content:

This artificially created sub-series contains a variety of legal and official documents related to the operation of the Manitoba Wheat Pool and MPE. Records include the following:

1. Agreements, General By-laws, and Contracts 1924-1972
2. General By-laws
3. Incorporations and Dissolutions
4. Operating Agreements, Agreements for Sale 1940-67
5. MPE Complete Legislation
6. Miscellaneous Documents
7. Elevator Policy, Agreements, Incorporation Certificates / Indebtedness
8. Quantitative Appraisal of Wheat Pool Building (left in original binding)
9. 9th Victory Loan Souvenir: A Portfolio of Reproductions of the Documents of Surrender
- 10a. Federal Agreement 1972 p.1-126
- 10b. Federal Agreement 1972
- 11a. Terminal Expansion 1961 – 1963
- 11b. Terminal Expansion 1961 – 1963
12. By-Laws and Constitutions
13. MPE & Connaught Laboratories Agreements 1964-66
14. MPE & Connaught Laboratories Agreements 1964-66
15. "Pool Pac" Trade Mark 1964, 1971, 1979
16. Patent #501894 Dust Control Apparatus 1954
17. MPE Agreement w/ Daniel Augustus Kane (General Superintendent appointment) 1928, 1933
18. Manitoba Co-operative Wheat Producers Ltd. Agreement w/ Richard M. Mahoney (Manager) 1924, 1925, 1928
19. MPE Acts
20. MPE Acts
21. Party & Supplementary Agreements 1931-1936
- 22a. Historical Documents of the Manitoba Wheat Pool 1924 - 1927
- 22b. Historical Documents of the Manitoba Wheat Pool 1927 - 1930
- 23a. Miscellaneous Documents 1925 -1996
- 23b. Miscellaneous Documents 1979 -1998
24. Association Documents 1940 - 1966
25. Deed of Trust and Mortgage August 2 1928
26. Wheat and Coarse Grains Overpayments 1929-1930

Notes:	Description by Jillian Sutherland (2009, 2010)
Name Access:	F.W. Ransom R.M Mahoney C.H. Burnell W.J. Parker P.F. Bredt D.A. Kane Manitoba Pool Elevators Manitoba Wheat Pool Central Office
Subject Access:	Victory Loan By-laws Letters Patent Overpayment

Storage Location: RG 4 Manitoba Pool Elevator fonds  
Series B: Central Office records