A Teaching Guide to Saskatchewan Archaeology:

Companion Document to *Incorporating Archaeology into Lesson Plans: Educational Outcomes from the Saskatchewan Curriculum – Grades Four through Nine*

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November 2010

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We gratefully acknowledge that the funding for this project has been provided by:

Saskatchewan Lotteries — Lottery Ticket Centre

SaskCulture

the history education network — THEN|HiER — histoire et éducation en réseau

Canadian Heritage | Patrimoine canadien

Chapter 1: Archaeology in the Classroom

1.1 What is Archaeology?

Archaeology is the scientific study of past people and cultures using the physical traces left behind. Archaeologists analyze archaeological artefacts, bones, features and sites with the goal of learning everything possible about the people that created them, from their culture and society to the environment they lived in.

People often think of pyramids or ancient Greek cities when they think of archaeology. However, archaeologists work all over the world, studying many different cultures and peoples, including those that lived in the land we now know as Saskatchewan.

1.2 Incorporating Archaeology into the Saskatchewan Curriculum

> "Archaeology education promotes an active and structured experience that involves specific and ordered steps in the process, where students are free to consider, challenge, and change what they already know (develop skills and gain knowledge). Through interpretation in archaeology education, students gain confidence through their own evidence-gathering and interpretive abilities, and they become further motivated to continue questioning and considering what they already know as they consider, analyze, consider some more, interpret, and apply meanings and draw new conclusions about something they are interested in learning about."
>
> –Marie Karner, graduate student from the University of Saskatchewan in the Department of Archaeology and Anthropology, thesis entitled "Teaching With Archaeology: Grade 6 Science and Grade 9 Social Studies" (2008).

This program, developed by the Saskatchewan Archaeological Society (SAS), is to be used as a resource for educators and students to learn about the archaeology of Saskatchewan and how it can be applied as teaching material for classroom studies. The SAS hopes that it is useful for teachers across Saskatchewan when they are incorporating archaeological topics and activities into the curriculum. This program is designed for students in grades four to nine, but could easily be adapted for high school students and the earlier grades, as well.

The SAS is frequently contacted by educators across Saskatchewan looking for information about archaeology. Many teachers are interested in taking their class on a field trip to experience a real archaeological dig. However, it is not necessary for students to participate in a real, or even a staged excavation, in order to understand the excitement of archaeology. The information and activities in this package have been organized to help teachers bring archaeology into the classroom. We have summarized how archaeologists work as well as the

archaeology of Saskatchewan, have provided fun and educational hands-on activities, and have included additional resources for students and teachers.

There are many reasons why teachers should include archaeology into their lesson plans. First of all, it is a subject matter that can be applied to different subjects and activities throughout the school year. The activities are "hands-on", and can be geared for both group and individual activities. Archaeology is a topic that can enhance a student's interest in a variety of subject areas, i.e. history, geography, geology, art, biology, math, writing, etc. Archaeology also promotes growth in communication skills and social interaction. It can also be incorporated into guest lectures, field trips, creative writing, scientific experiments, art projects, and both indoor and outdoor education.

Teaching children about archaeology lets us continue to foster the interest that most children have about the past, sites, and artefacts. By making archaeology enjoyable to children, in a positive learning experience, we gain a generation that will continue their interest and, in turn, are concerned for archaeological resources. Teaching about archaeology can make the students, the teachers, and the parents of the students aware of the concerns that surround conservation and our resources.

This curriculum development package includes several tools to guide teachers and educators when they are incorporating archaeological material or activities into their lesson plans. Accompanying this document are the following:

- Educational Outcomes: this document explains where archaeology themes and activities can fit into the Saskatchewan Curriculum, specifically for grades four to nine.
- A Map of Saskatchewan Archaeology: The Archaeological Map of Saskatchewan that was developed by the Saskatchewan Association of Professional Archaeologists (SAPA) contains information about where archaeological sites are located in the province, it highlights significant sites and museums, and the reverse outlines the culture history of Saskatchewan. Photos and illustrations are positioned throughout the text. This document is to be used in conjunction with the archaeology map.
- Introductory Handbook to Saskatchewan Archaeology (pdf)
- The Heritage Property Act (pdf)
- The Sites of Special Nature Visitor Guide (pdf)
- Activity Handouts and Teaching Documents Folder
- The Archaeology of Saskatchewan: A Teaching Guide (this document)

This document is organized into six chapters and four appendices. Chapter one, as seen above, is a short introduction to archaeology and then discusses how teachers can incorporate archaeology into their lesson plans. Chapter two includes a more in-depth look at archaeology that starts off with a First Nations perspective by Brian Scribe and then the next section gives some background information on archaeology for teachers; this explains archaeology as a discipline, archaeological context and methods. Chapter three outlines the archaeological history of the province, starting with the earliest known human occupations after the last glacial episode and ends with the settler era in the early 1900s. Chapter four is linked with the SAPA map examining, in further detail, the 12 landscapes in Saskatchewan and the culture history of each.

Chapter five contains a list of questions concerning the map that teachers can pose to their students, enhancing their understanding of Saskatchewan archaeology. The final chapter comprises archaeologically-geared activities covering a variety of topics and can be adapted for different age groups depending on the desired level of difficulty. Appendix A is a guide for visiting archaeological sites in Saskatchewan. Appendix B contains resources for both teachers and students to learn more about archaeology. These include interesting websites, books, videos, and archaeo-kits. All references used throughout this document are listed in Appendix C. Throughout this document, vocabulary words are double underlined and you can find their definitions in the glossary, appendix D.

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Chapter 2: Saskatchewan Archaeology

2.1 Introduction

This chapter serves as an introduction for teachers and students to Saskatchewan archaeology. A First Nations perspective on archaeology is provided by Brian Scribe, followed by a discussion regarding archaeology as a discipline and a career.

2.2 First Nations Perspective

Written by Brian Scribe (Cree/Nakota), Archaeologist

The land known today as Saskatchewan has sustained the First Nations people "since time immemorial." Traditional knowledge tells of Wisahkechahk, Nanabush, Iktomi, or Waldili and his relationship with all living beings, including the ancient animals from the Ice Age. This knowledge guided our ancestors in living respectfully on Mother Earth. With each passing season, they left their tracks across the landscape. The medicine wheels, stone circles and animal effigies scattered across the landscape, as well as the rock paintings along the major river systems, attest to their passing.

There is an emerging quest by First Nations youth to understand where they came from and what path they will follow in the future. First Nations archaeological heritage is becoming a part of this quest. To date, most of the archaeological data has been interpreted from a non-First Nations perspective. In some cases, it does not correlate with First Nations oral tradition. First Nations Elders and scholars need to be more involved in archaeological interpretation to ensure that the First Nations voice is heard.

More First Nations Elders and scholars are becoming involved in archaeological projects. Elders are being included in the management of "Sites of a Special Nature" (sacred sites), which they recognize as sacred altars. This ensures that First Nations traditional protocols are followed.

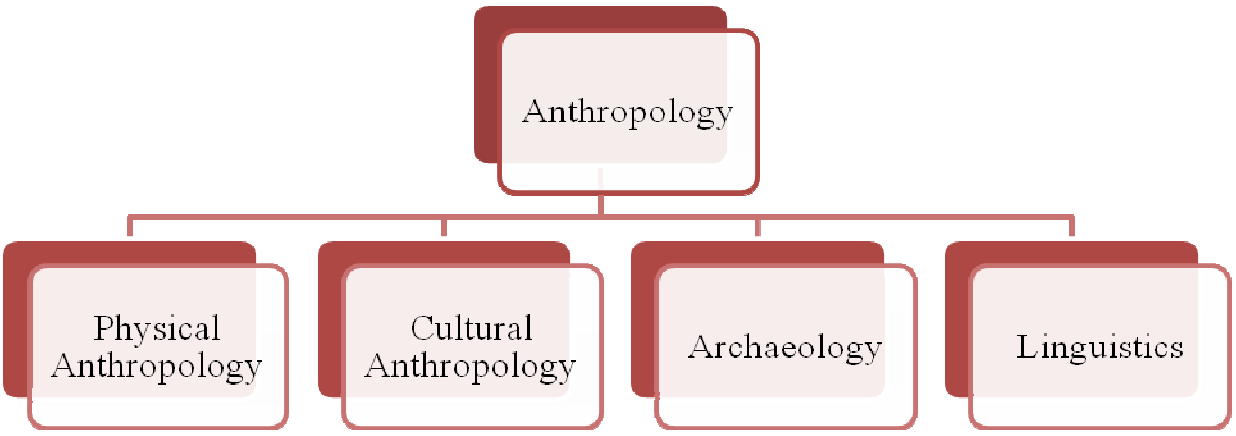
It is good to see First Nations people slowly returning to these sites as we struggle to preserve our culture and heritage in this era of globalization. It affirms our connection to the distant past, to the grandfathers and lakes and forest, on the hill tops, in the valley bottoms and across the prairies of Saskatchewan. This is truly our heritage and it must be preserved and protected for the future generations to come.

2.3 Archaeology Background Information

This section can be used by teachers to acquire some background knowledge about the field of archaeology. It covers general terms and concepts that will help teachers be able to better discuss archaeology in the classroom, carry out archaeological activities, or even prepare their students for a field trip to an excavation.

2.3.1 Archaeology as a Discipline

Archaeology, as it is practiced in North America, is one of the four major subdisciplines of anthropology. Anthropology is a field of study that integrates biological and cultural investigations of humans, starting from the time of human ancestors to the present. Anthropology can be divided into physical anthropology, cultural anthropology, archaeology, and linguistics. Physical Anthropology is the study of the physiological, skeletal, and genetic nature of humans and our hominid ancestors. Cultural Anthropology is the study of the cultures of living populations. Archaeology is the study of the **human** past using a wide range of scientific methods and techniques to study it. This is not the study of dinosaurs (that would be palaeontology), nor is it the glamour of Indiana Jones (that stuff only happens in movies). Linguistics is the study of historic and modern languages, those still used and those that have been lost.



Academic archaeologists become specialized in their field through their education and later research interests. Here is a list of some of the major specializations from around the world.

- Prehistoric archaeologists study human activity from the times of the earliest humans up to the appearance of written history.
- Classical archaeologists focus on the remains of civilizations in both Greece and Rome.
- Other archaeologists become experts on a specific civilization or time period, for example, Egyptologists or Mayanists.
- Historical archaeologists deal with archaeological sites from the historic period, the time from which written texts exist.
- Underwater archaeologists study sites in the ocean, such as shipwrecks, but also sites in rivers and lakes.

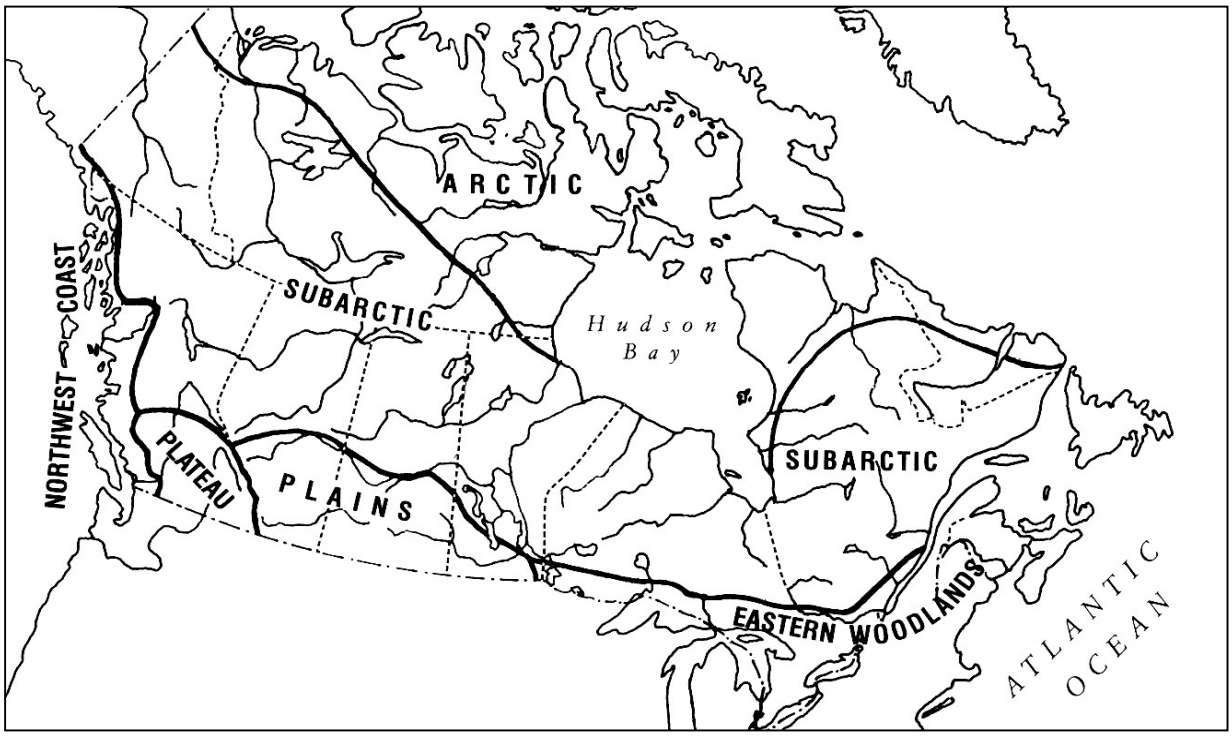
Archaeologists have one main goal and priority – to preserve and conserve the remains of past civilizations for future generations. In order to do this, archaeologists have to analyze and interpret the archaeological record, which is essentially all of the data collected from

excavations. The archaeological record, evidence from the ground, is recorded at sites as artefacts, ecofacts, and features. An archaeological site is a particular region or area at which traces of human activity can be found, for example: tipi rings and bison jumps, homesteads and mission settlements, and ancient temples and burial tombs. Artefacts are the material products or remains of past societies. Examples of artefacts include pottery, stone tools, coins, and glass bottles. Ecofacts are objects that were brought to the site and have not been modified by humans, and these could be things such as bones, pebbles or cobbles, corn cobs, and pollen. Finally, features are physical attributes that are the result of human activity and cannot be removed from the site without their destruction. Features can include large structures such as stone walls or foundations, but can also be things like stone circles, hearths and storage pits.

2.3.2 Context

Context is everything when studying the remains of the past. Some of the areas of interpretive interest in archaeology, which are general to an archaeologist working with any and all cultures of the past, include: technology, subsistence, settlement pattern, social organization, and spiritual activities.

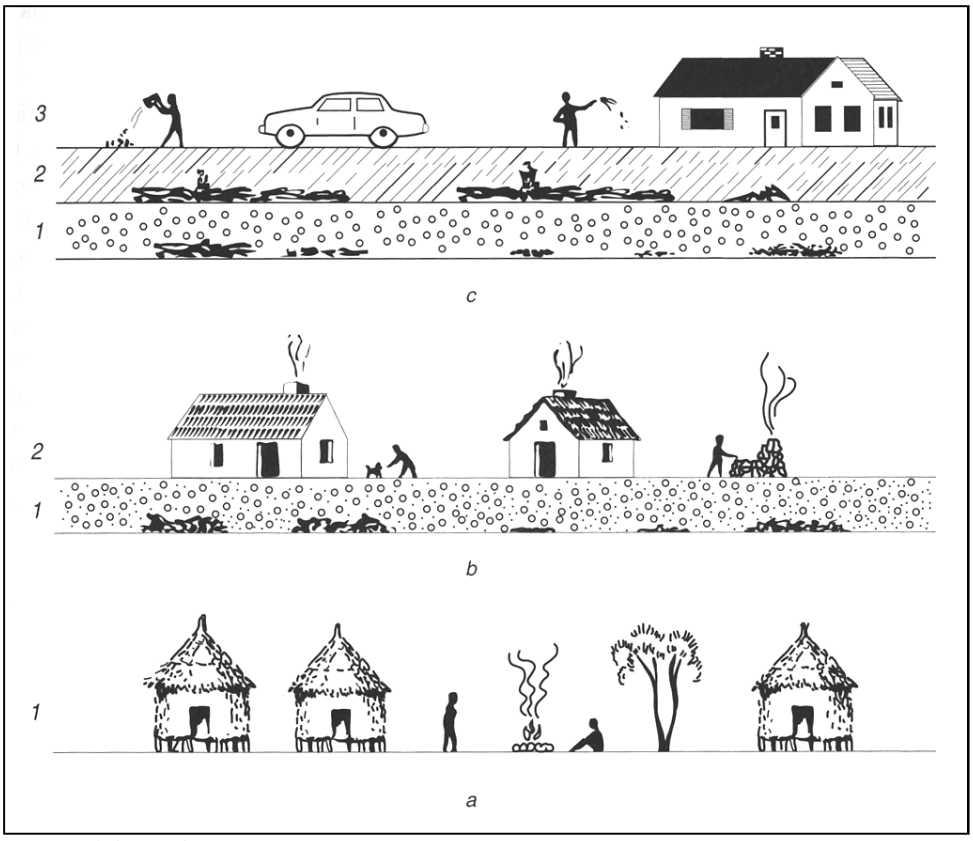
One of the contexts that archaeologists in Saskatchewan find themselves concerned with when pursuing research is that of an ethnographic or ethnological perspective. The two great culture areas of North America involving the province of Saskatchewan are the Plains and the Subarctic. Culture areas are those which are defined by the environment and shared cultural characteristics.



Culture Areas of Canada: The Subarctic and Plains areas extend across Saskatchewan (map from *Native Peoples and Cultures of Canada* (1988) by Alan D. McMillan).

At the site level we must examine the context of all materials found. All scientifically collected or recorded archaeological finds occur within a matrix and have a specific provenience. The matrix is any and all of the physical substance that surrounds the find, be it water, dirt, or other materials. The provenience is the specific three-dimensional position of an artefact within the matrix that is recorded by the archaeologists. When an archaeologist uncovers an artefact while excavating, he or she needs to keep track of where that artefact was *in situ,* in other words, where it was positioned in the ground. To do this, he or she will record how far north and east the object is from a measurement point, and also the depth.

Provenience occurs not only in space, but in time as well. The Law of Superposition states that geological layers stratify one on top of another, one at a time, like layers of a cake. Therefore, anything that is found in a layer at the bottom is older than something found in a layer closer to the top. This has led to relative dating in archaeology, where items are dated relative to their place in the stratigraphy and to one another.



Law of Superposition: **A** – A farming village built on undisturbed soil. After a time, the village is abandoned, and the grass huts fall down. The ruins of this village are covered by accumulating soil and vegetation (layer 1). **B** – Hundreds of years later, another village of wooden houses is built in the same location. This settlement is eventually abandoned as well, and soon the houses collapse into piles of rubble that are covered with soil (layer 2). **C** – Finally, people from the 20st century occupy the same area. Their garbage and building remains indicate their presence at this site. This last period of occupation will ultimately be covered with soil and vegetation (layer 3) (Illustration from *Archaeology: A Brief Introduction,* 9th ed. By Brian M. Fagan (2006)).

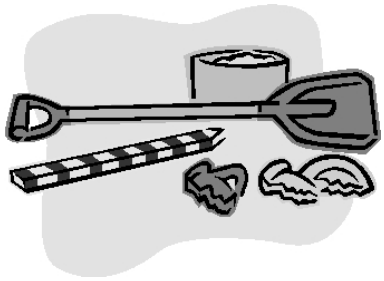
The diagram above illustrates the Law of Superposition where three separate periods of occupation, three villages existing during different time periods, were built at the same location. An archaeologist digging at this site would reveal a relatively recent settlement in the first "layer" on top of two older, prehistoric occupations. The "layers" at an archaeological site are referred to as the stratigraphy, with each layer being a stratum. Based on their positioning in the soil, the archaeologist can infer that village 1 is earlier than village 2 and 3, but it is unknown how many years separate each living period.

2.3.3 Archaeological Methods

How do you know where to dig? Archaeologists use several methods to find sites and collect data. This next section will explore the ways in which archaeologists discover and assess archaeological sites, a fundamental part of field research.

General surveying is a useful way to find sites, whether it is a small plot of land or a large river valley. When undertaking a survey project, it is important to have some knowledge of what has been found in the general area. This is why it is important for **all** people to report sites, whether you are an amateur/avocational or professional archaeologist. Surveys can be used to locate surface finds, such as tipi rings or effigies, because they can still tell us many important things even though they are not excavated.

Surveys can also include digging a series of test pits, which are small excavation units dug to sample an area before a large-scale excavation. These test pits are useful for understanding how deep a site is buried or the area the site covers. Excavations can also be used to sample an area or site in an attempt to locate features. Block excavations occur at larger sites to expose many remains in direct association with one another. Excavating is a long process, as an archaeologist has to keep detailed records of their findings. Archaeologists use a variety of tools, such as trowels and brushes, to carefully scrape away the soil, level by level, and then sift the collected dirt through a screen to catch any artefacts missed while digging. Usually, not all of an archaeological site will be excavated; this is because a site that is being excavated is also being destroyed. Therefore, parts of a site will remain intact for future archaeologists to investigate as well. On the other hand, some sites are in danger of being destroyed, either by nature (for example, an eroding river bank), or by development (for example, oil and gas pipelines). For these reasons, an archaeological site will likely be dug to gather as much information as possible because there will not be any opportunities in the future to return to the site.



Archaeologists excavate in a systematic manner by developing a grid big enough to cover the entire site. This grid system is usually made up of 1 x 1 metre squares, or units, marked by pegs in the ground. The units are labeled according to the distance and direction from a primary measuring point, referred to as a datum point. For example, unit 35N16E is positioned 35 metres

north and 16 metres east of the datum point. As archaeologists excavate, they collect artefacts that are put into clearly labeled bags and then record these finds in their field paperwork (see example of field paperwork below). Aside from documenting artefacts, they also keep track of things such as soil colour and texture, any underground disturbances (for example, gopher holes or large roots), and features.

Paperwork is only one method used by archaeologists to record information; they also use maps, sketches, and photographs. Artefact locations are usually drawn on a unit map, showing their location, depth, and size of the object (see example of unit sketches below). Sometimes, the artefacts are even sketched. Now, in the age of digital photography, archaeologists take many photographs before, during, and after the excavation. Photos are taken of the site, specific levels in units, and of artefacts. Photographs are a great way to recreate the excavation when archaeologists get back to the laboratory.

Though much of the time is spent in the field gathering the items needed for research, an equal amount of time is spent in the lab cleaning, recording, and analyzing the work. Just as many discoveries come in the lab as in the field – and it's just as much fun! Washing the artefacts reveals much and comparison to materials from other sites is important. Reconstruction of bone, lithics, and ceramics occurs in the lab. All artefacts have to be put into a catalogue – a database that contains information about the type of artefact, what it's made of, where it was found, and its size. Photographs are sometimes taken of specific artefacts. The artefacts are then put into boxes and sent to the Royal Saskatchewan Museum in Regina. This is where all of the artefacts from across the province are stored. Even though some artefacts are nice, archaeologists are never allowed to keep any!

Lab analysis includes dating artefacts. Some of this is done through relative dating, as talked about with stratigraphy. Other common dating methods give a more absolute date for the artefact in question. While there are others, such as dendrochronology or tree-ring dating, thermoluminescence, and obsidian sourcing to name a few, the most common absolute dating method employed by archaeologists is radio carbon dating or C14 dating. Radio carbon dating has helped to date sites in Saskatchewan including the Heron Eden site that dates to 9,000 years ago and the Napao site, dating back to 10,000 years ago. Dating is one of the areas of archaeology that relies heavily on other fields of science (in this case physics). Sciences that are frequently involved in archaeology are ecology, biology, palaeoclimatology, and others.

Once all of the lab work is complete, the archaeologist is responsible to write a detailed report listing all of the work accomplished during the excavation and a description of everything that was discovered. The report also includes information about the local environment at the site and about the history of the area. Together, all of this data can tell archaeologists about human activity at the site.

South Branch House (FfNm-1)
Level Record Form

Excavator(s): Krystine Lamotte Excavation Unit: 358N 193E

Date Started: June 22, 2010 Level Number: 11

Level Type: ☑ Arbitrary ☐ Natural Level Thickness: ☑ 5cm ☐ 10cm

Excavation Technique: ☑ Trowel ☐ Shovel Screen Size: ☐ 1/4" ☐ 1/8"

Floor Plan: (Yes) No ☐ Digital ☑ Sketch # 4 Photographs: ☑ Digital ☐ Film #'s 38

Depth: ☐ DBD (Depth Below Datum) ☑ DBS (Depth Below Surface)

Surface* (cm): NW 0 NE 8 SW 0 SE 7

(*For level 1 remember to record surface depth from datum at unit corners prior to excavation)

Upper Corner (cm): NW 51 NE 51 SW 52 SE 51

Lower Corner (cm): NW 55 NE 55 SW 55 SE 55

Level Recoveries	NW	NE	SW	SE
Sterile	✓			
Tools				
Debitage				
Bone		calcined, raw	✓ raw	✓ raw, calcined
FCR				
Other		red ochre, charring, charcoal	charring	white bag, charring, charcoal, red ochre
Sample				
# of Quad Bags	0	3	1	2
Tag Number				

(estimated counts)

Burned or Calcined Bone: burned bone was located throughout. Pockets of ash in NE, SW, SE quads

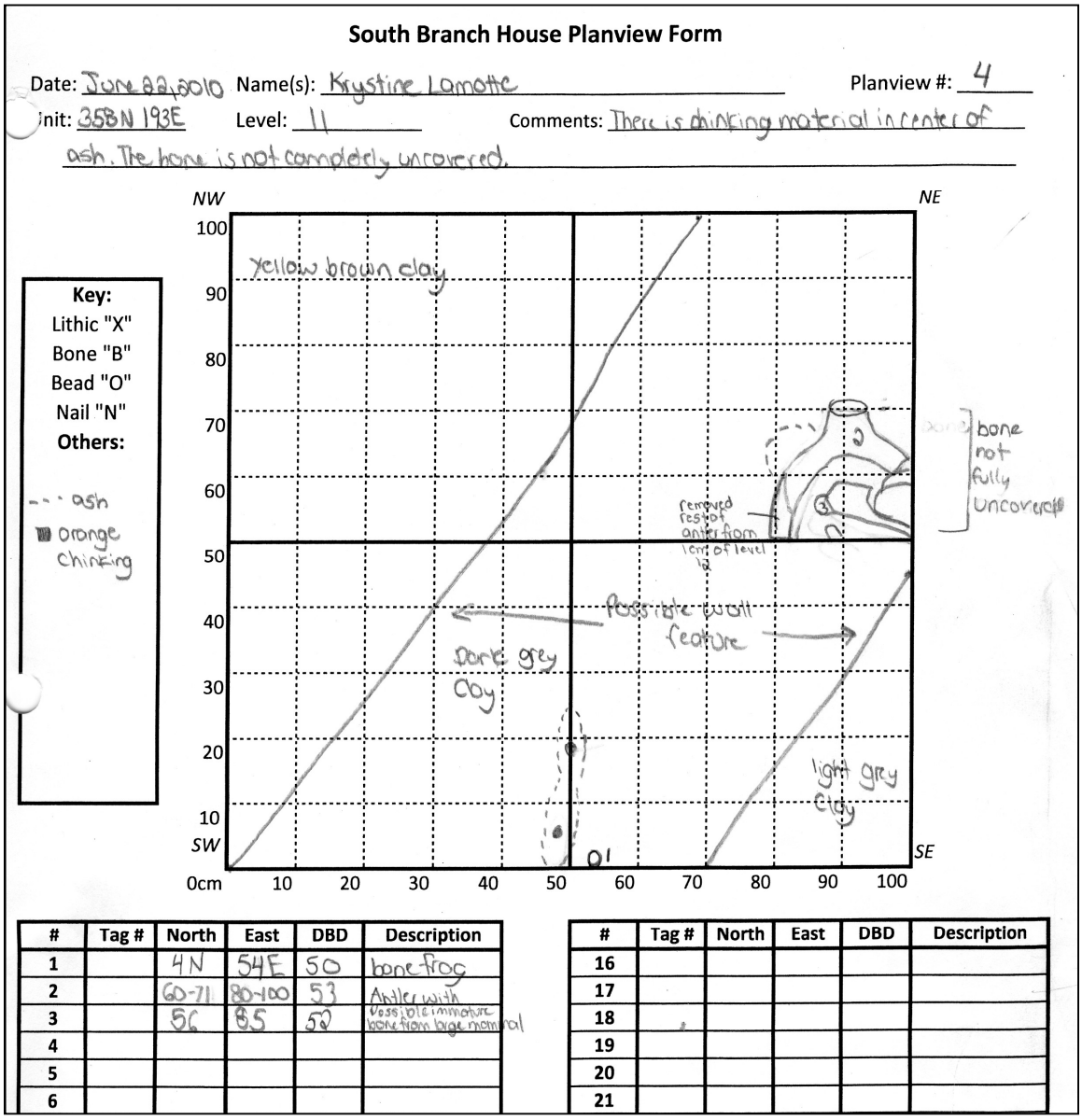
Feature Description (hearth, pit, etc): _____

Soil Description: NW quad contains yellow brown clay, dark grey clay throughout rest of quads.

Comments (describe tools, ID fauna, concentrations, disturbances, etc) Red ochre found in a pile of ash at 58cm in NE quad. In darker clay. There are pockets of ash with charcoal + an orange center in SE quad. The darker area is possible wall feature. Bone in NE quad is not completely exposed,

Signature: Krystine Lamotte Date Level Completed: 22 June 2010

Field Paperwork: This is an example of some of the field paperwork used during an excavation. Note all of the different kinds of information recorded – date, name of the archaeologist, unit number, types of artefacts found in the unit, the level depth, a description of the soil, if there was a photograph or sketch made that corresponds with this information, and what kind of tools were used.



#	Tag #	North	East	DBD	Description
1		4N	54E	50	bone frog
2		60-71	80-100	53	Antler with
3		56	85	52	Possible immature bone from large mammal
4					
5					
6					

#	Tag #	North	East	DBD	Description
16					
17					
18					
19					
20					
21					

Unit Sketch: Here is an example of a planview form (a sketch of the unit at a particular level). The archaeologists drew bone in the NE quadrant, labeled ash and chinking deposits, and also indicated the soil colour. Extra information can be added in the key at the left side of the page. There are three mapped artefacts, numbers 1, 2, and 3, and their locations are listed at the bottom of the page.

Chapter 3: Saskatchewan Archaeological History and Cultural Chronology

All projectile point illustrations are taken from *Tracking Ancient Hunters: Prehistoric Archaeology in Saskatchewan* (1983), edited by Henry T. Epp and Ian Dyck, Saskatchewan Archaeological Society.

All pottery vessel illustrations are taken from Precontact Archaeology in Northern Saskatchewan (David Meyer) and Precontact Archaeology in Southern Saskatchewan (Ernest Walker) both from the *Atlas of Saskatchewan* (1999), edited by Ka-iu Fung, University of Saskatchewan.

All illustrations are not to scale.

3.1 Precontact Period

The Precontact Period in Saskatchewan dates back to at least 11,000 BP (Before Present) with the earliest evidence of human occupation from various locations across the province. The ancestors of First Nations people include many groups with diverse hunting and gathering lifestyles. This chapter discusses the culture chronology of the Precontact Period in the southern and northern regions of Saskatchewan, with each of these sections being divided further into different time periods.

3.1.1 Southern Saskatchewan

The area described as southern Saskatchewan can actually be divided into two separate ecological zones. The most southern area is characterized by open grassland with rolling hills, but also includes unique landscapes such as the Big Muddy and Cypress Hills along the southern border. The northern area is known as the Aspen Parkland, which is actually a transition zone between the natural prairie and Boreal forest. This belt running diagonally through the province includes a combination of grassland and wooded areas. The archaeological record for southern Saskatchewan can be divided into three time periods: the Early Precontact Period, the Middle Precontact Period, and the Late Precontact Period.

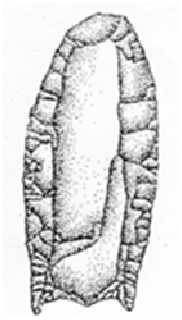
3.1.1.1 The Early Precontact Period (12,000 – 7,500 BP)

After the retreat of the last glacier (14,000 years BP), known as the Wisconsin Ice Sheet, the first people *known* to inhabit the area of Saskatchewan were part of the Clovis culture/occupation dating from 11,200 to 10,900 years BP. These people used spears to hunt Ice Age megafauna such as mammoth and large bison. The Clovis spear point is characterized by a large flute removed from the base, which would have been used to thin the point in order to attach it to the spear.

Clovis

The culture following Clovis is Folsom and this occupation has a date

range of 11,000 to 10,500 years BP. Folsom projectile points are manufactured similar to Clovis point, but the fluting extends almost to the tip of the point. During this time period, much of the megafauna living on the Plains became extinct and as a result, people began to hunt bison.

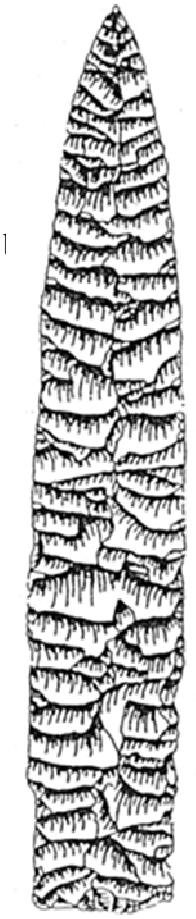


Folsom

Agate Basin - Hell Gap

The Agate Basin/Hell Gap projectile point style follows Folsom with radiocarbon dates of 10,500 to 9,500 years BP. These types of points are no longer fluted, but instead have a stemmed base that is more constricted to assist with hafting the point to the spear. As with Clovis and Folsom materials, Agate Basin points projectile points have only been collected from the surface, but quite a few of these finds within the province have been recovered from the Parkhill site near Moose Jaw. The Hell Gap culture is associated with Agate Basin and has slightly later dates of 10,000 to 9,500 years BP.

The hafting method of using a narrower base on the projectile point continued to be used in subsequent cultural groups: Alberta (9,500 BP) Alberta-Cody (9,500-9,000 BP) and Cody (8,800-8,400 BP). Alberta points have broad stems. The points included in the Cody complex are Scottsbluff and Eden and there is also a small triangular tool called a Cody knife. A number of these projectile points have been collected from sites in southern Saskatchewan, with a few even being found *in situ* at sites such as Napao and Niska.

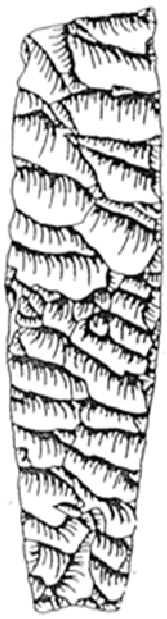


Eden

Alberta

Scottsbluff

Cody Knife



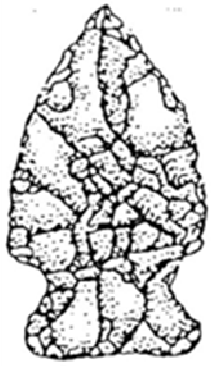
Angostura

The last part of the Early Precontact Period is affiliated with the Terminal or Late Paleo-Indian Lanceolate culture (8,800-7,500 BP). The projectile point styles included within this time period are Angostura, Lusk, James Allen, Frederick, Lovell Constricted, and Pryor Stemmed. Some of these types of points have been found as surface collections in southern Saskatchewan.

3.1.1.2 The Middle Precontact Period (7,500 – 2,000 BP)

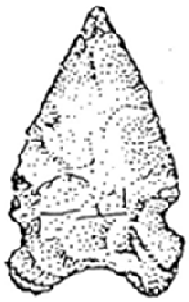
The Middle Precontact Period is a time characterized by change in the environment, which subsequently altered living conditions, hunting technologies, and species of animals. At about 8,000 years BP the climate changed to warmer and drier conditions, and in turn, this expanded the grasslands, moving the Boreal forest further north, maybe as far as the Churchill River. This environmental shift is also referred to as the Altithermal. By this point in time, megafauna had become extinct and bison were much smaller in size compared to their ice age predecessors. There are few identified sites dating to this warmer climactic period, possibly because of their buried depth. At 6,500 years BP, change back to a cooler and wetter climate.

The Middle Precontact Period also saw technological changes in weaponry with a switch from large lanceolate projectile points to somewhat smaller side-notched points. These points are sometimes referred to as dart tip styles or atlatl points because they are hafted onto a dart shaft and then propelled with the aid of an atlatl. An atlatl is a tool used to throw a spear to increase speed and force. However, it is possible that the atlatl has been used in this area as long as humans have been hunting here.



Mummy Cave

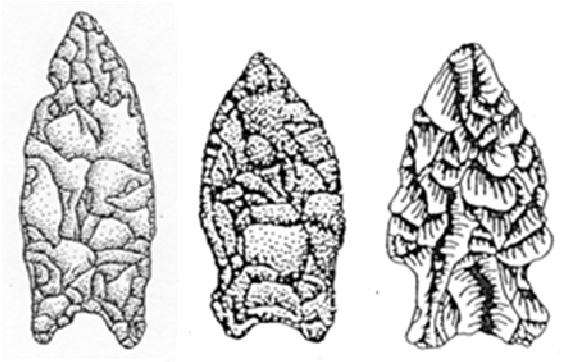
At the beginning of the Middle Precontact Period, there are a variety of dart point styles that have been recovered from all over the region, suggesting that different cultural groups were producing their own stylistic variation. All of these points have been grouped under the Mummy Cave complex (7,500-5,000 BP). Many of these sites have been found near rivers and other permanent sources of water, possibly indicating that it was necessary to be in close proximity to water during the drier periods. The most notable Mummy Cave sites include the Gowen and Norby sites located close to Saskatoon.



Oxbow

Following the Mummy Cave complex is the Oxbow culture (4,700-3,800 BP). Sites with an Oxbow component are found all across southern Saskatchewan and the points have a recognizable "eared" appearance because of their concave bases. The oldest known tipi rings in the province date to this cultural period and some of these habitation sites include the

Harder, Moon Lake, and Amisk sites. Some of these sites produced copper fragments signifying trade connections to the Great Lakes region. The dominant food source still appears to be bison, but there have also been remains found of smaller game species.



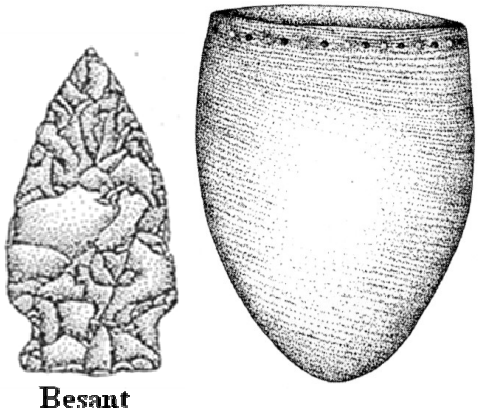
McKean Duncan Hanna

The McKean culture (4,100-3,100 BP) is partially contemporaneous with Oxbow. The McKean culture includes three different styles of projectile points: McKean, Duncan, and Hanna. The McKean point has no side-notching, but does have a concave base, while the Duncan projectile point has both a concave base and shallow side notches. Hanna projectile points have wide corner notches. There is little known or understood about the relationship between these three point styles. McKean sites in the United States, in particular Montana and Wyoming, are associated with pit houses and grinding tools. The McKean culture is viewed as being intrusive, with some archaeologists believing that McKean people migrated from the American southwest. Two of the largest occupations sites found Saskatchewan are located in Wanuskewin Heritage Park, the Red Tail and Thundercloud sites.

Pelican Lake

The Pelican Lake culture, which dates to 3,300-1,850 years BP, is associated with distinctly shaped corner-notched projectile points. The small size of some of these points suggests that bow and arrow technology may have been used in conjunction with dart points, thus indicating the earliest use of this new equipment. The Pelican Lake culture was first identified at the Mortlach site in 1955, but is also present at the Walter Felt and Sjovold sites. Artefacts recovered from Pelican Lake sites include a variety of foreign materials, such as Knife River Flint from North Dakota, shells from the Pacific coast, and copper from the Great Lakes region. These items would have been brought to the Plains region via extensive trade networks.

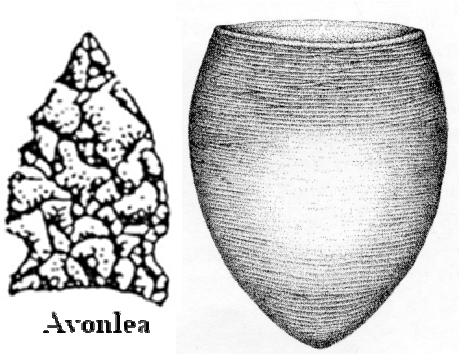
3.1.1.3 The Late Precontact Period (2,000 – 170 BP)



Besant

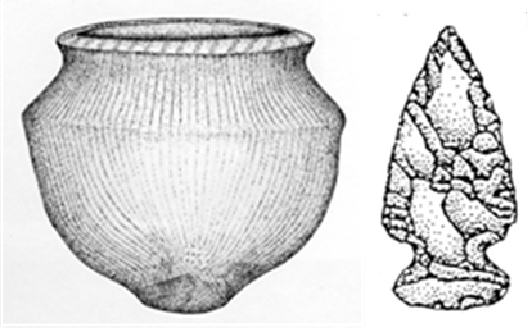
The Late Precontact Period exhibited climatic conditions much like today with a mixture of cooler/moister and warmer/drier episodes. During this period there was a significant change in technology, with the use of the bow and arrow, as well as the introduction of pottery. The Late Precontact Period begins around 2,000 years BP and ends when European contact became consistent, approximately 170 years BP.

The Besant culture was present in Saskatchewan from 2,000-1,150 years BP and the projectile points are side-notched dart tips. This time period marks the first use of pottery on the Plains. Besant pottery vessels are conoidal in shape, include a row of punctates along the rim, and were manufactured using the paddle and anvil technique. People lived in tipis during this time period and these can be identified at archaeological sites by circular configurations of large stone cobbles. The rocks were used to hold down the edges of the hide covering. There is evidence to support communal bison hunting techniques used by the Besant people, such as natural landform traps and large corrals, also known as "pounds."


Avonlea

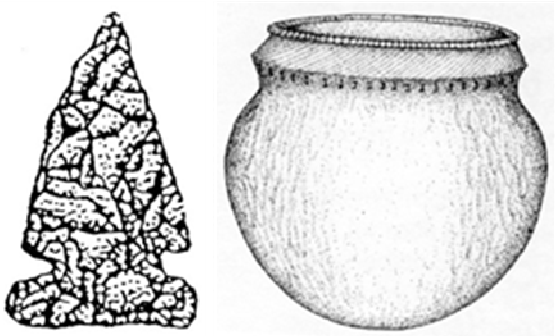
The Avonlea culture (1,800-1,150 BP) began slightly later than Besant, but by 1,800 years ago, both cultural groups were contemporary. Avonlea people are known for making small and delicately-made, side-notched projectile points. Pottery is also seen in Avonlea artefact assemblages and there are three associated styles. The first is net-impressed vessels that are marked with either rows of punctuates or parallel incised lines at the rim. The second style has simple stamped exteriors with spiral grooves, while the third style has smooth exteriors. The archaeological type site for this cultural group is the Avonlea site in southern Saskatchewan. Avonlea people used bison jumps as a communal hunting strategy and a classic example is located at the Gull Lake site.

The last 1,000 years before contact with Europeans was a very dynamic time in the Precontact Period with technological and cultural developments across the northern Plains. People in the Missouri River area, in North and South Dakota, adopted horticulture (growing corn) and also began to live in permanent earthlodge villages. There is evidence of population increases, the movement of people, and the transport of goods through trade networks across the Plains. At the time, people of southern Saskatchewan were influenced by other cultural groups in the surrounding area, including Manitoba, northern Ontario, Minnesota, the Dakotas, and northern Saskatchewan.


Old Women's pottery - Prairie Side-notched

The Old Woman's culture (1,200-550 BP) can be seen at archaeological sites all across southern Saskatchewan. This widespread cultural group employed Prairie Side-notched projectile points (1,200-550 BP). The pottery found at Old Women's sites is recognized by its thick and course appearance; the exterior surface is cord-roughened, and is usually decorated with finger-pinching, rows of punctuates, and/or cord-wrapped tools. Some of the noteable Old Women's sites include the Gull Lake bison jumps, the Estuary bison trap, the Walter Felt site, the Garratt site, the Sjovold site, and the Tschetter bison trap. As can be seen from this list of sites, bison jumps and traps were still used by Old Women's people for hunting bison.

Following the Old Women's culture is the Mortlach culture (450-250 BP) and the archaeological sites associated with these people are located mainly south of the Qu'Appelle River Valley. The projectile points dating to this time period are known as Plains Side-notched (550-170 BP), similar in size to the Prairie Side-notched points, but due to their square bases and higher positioned notches, they have a more distinct triangular appearance. Mortlach pottery is also quite unique, displaying stylistic influences from northern Selkirk pottery and Middle Missouri vessels. The pottery assemblages contain fragments that have smooth fabric impressed exteriors with cord-wrapped tool impressions on the lip and/or a row of punctuates around the rim. Other fragments have incised and check-stamped impressions on the exterior surface. Mortlach culture artefacts have been recovered from the Lake Midden site near Bulyea, the Stony Beach site near Regina, two sites within the city of Saskatoon.



Plains Side-notched : Mortlach pottery

The Moose Jaw culture (400 BP) existed at the same time as the Mortlach culture, but their geographic range extends from north of the Qu'Appelle River valley to the parkland region. These sites are characterized by Wascana-ware pottery, which is fabric-impressed, cord-roughened, or plain exteriors. The decoration is positioned on the lips and rims with cord-wrapped tool impressions, notches, or punctuates.

The Late Precontact Period in southern Saskatchewan can also be linked to several boulder alignments and monuments that have been identified across the prairie landscape. These include sites with medicine wheels, and animal and human effigies. Some examples of these types of sites include the Moose Mountain Medicine Wheel, the Minton Turtle Effigy, and the Cabri Effigy. These monuments have religious and ceremonious affiliations, but some may even serve as geographical markers. There are also several rock art sites across the southern portion of the province. Pictograph and petroglyph sites in the grassland region are not as abundant as compared to northern Saskatchewan, and this is due to the lack of rock outcrops. St. Victor's petroglyph site is an example of a rock art in southern Saskatchewan.

3.1.2 Northern Saskatchewan

The archaeology of northern Saskatchewan can be divided into geographic areas: a southern and northern area. The southern mixed wood-Boreal forest zone includes the areas associated with the Saskatchewan, Beaver, Sturgeon-Weir, Churchill, and Reindeer Rivers. The far northern zone comprises the areas around Lake Athabasca, Black Lake, Cree Lake, Wollaston Lake, and Reindeer Lake. (Refer back to 3.1.1 Southern Saskatchewan for illustrations of the projectile points).

3.1.2.1 Mixed Woods-Boreal Forest Zone

This area in northern Saskatchewan encompasses the Boreal forest, the Mixed Woods forest, and some of the Coniferous forest section. People living in this region were hunter-gatherers who hunted moose and caribou, but also subsisted on smaller mammals such as beavers. Fish and waterfowl made up a considerable portion of their diet. Plants such as roots, tubers, and berries supplemented their food intake. The archaeological discussion about this area of the north is divided into three time periods: the Early Precontact Period (9,500-7,500 BP), the Middle Precontact Period (7,500-1,000 BP), and the Woodland Period (1,000-170 BP).

3.1.2.2 The Early Precontact Period (9,500 – 7,500 BP)

The first people living in northern Saskatchewan moved into this area after the retreat of the last glacial episode. At about 10,500-9,500 years ago, people of both the Agate Basin and Hell Gap culture were present, and their associated projectile points have been found north of the Saskatchewan and North Saskatchewan Rivers. So far, this is the most northern extent of these cultures in the province.

The glacial ice sheets continued to retreat and by 9,500 years ago, some parts of northern Saskatchewan were ice free. The area of land between the North Saskatchewan and Churchill Rivers was covered by deciduous forest, and this is where projectile points from the Alberta culture (9,500-9,000 BP) and the Cody culture (8,800-8,400 BP) have been found. Between 8,400 and 7,500 years ago, the deciduous forest had moved further north towards the Churchill River and the glacier had receded almost completely out of Saskatchewan. Regarding this time period, there has been little research, in terms of excavation, in northern Saskatchewan. However, Angostura projectile points have been found as far north as the Churchill River. Unfortunately, archaeologists know very little about how people lived during the Early Precontact Period because of the shortage of identified sites.

3.1.2.3 The Middle Precontact Period (7,500 – 1,000 BP)

The Middle Precontact Period in the Mixed Woods-Boreal Forest Zone was a time when people moved away from hunting large game animals to a lifestyle characterized by longer occupation in certain regions. The environment between 7,500-1,000 years ago was much cooler than what it is today, and as a result, this placed the border of the deciduous forest just south of the Churchill River. The climate and environmental changes during this period may have altered the movement of animals and people. People from the prairie region may have followed bison further north and this could be a reason for the projectile points of northern Saskatchewan to be similar to those found in the southern portion of the province.

Projectile points characteristic of the Mummy Cave culture (7,500-5,000 BP) have been found at the Near Norbert site, which is at the confluence of the Norbert and Haultain Rivers. This type of point was propelled using an atlatl and this type of hunting technology is distinctive of the Middle Precontact Period. The archaeological cultures following Mummy Cave are Oxbow, McKean, Hanna and Pelican Lake, ranging in time from 4,000 to 2,000 years BP.

However, the presence of these people is only evident in surface collections of artefacts; there have been no excavations of sties dating to this time period. By 2,000 years BP, the boreal forest edge had moved further south to its present location, shifting the parkland region even further south.

3.1.2.4 The Woodland Period (1,000 – 170 BP)

The cultures of the Woodland Period are recognized by the introduction of pottery in the artefact assemblages. The earliest pottery styles seen in the Woodland Period are present in the area between the Saskatchewan and Churchill Rivers. The first of these is Laurel pottery, which can also be found in northwestern Minnesota, northern Ontario, and Manitoba. It is seen predominantly at sites around the Churchill River, but has also been collected from around Reindeer Lake. Laurel pots are conoidal shaped vessels and were constructed by coiling. The exterior surface was smooth, but highlighted by decorative rows of punctates and dentate impressions that extended from the lip down to the shoulder region. Fragments of Laurel pots have been found at several sites in northern Saskatchewan, but the time period associated with this culture remains unclear. One piece of evidence from the Spruce Rapids site has been thermoluminescence dated to ca. 1000 BP.

Laurel

The second of these early pottery styles is known as River House and some of these fragments have dated from 1,220 to 850 years BP. The River House culture has been found in an area stretching from the lower North Saskatchewan River into west central Manitoba. There are two varieties of River House pottery with one being similar to Laurel pottery and the other is net impressed. The decoration on River House vessels is cord-wrapped tool impressions instead of the dentates and punctates that are seen on Laurel pottery. Aside from pottery fragments, River House artefact assemblages also include small triangular, side-notched projectile points and small ground stone tools.

River House

Blackduck

Later Woodland Period cultures include Blackduck, Narrows, and Selkirk. Blackduck pottery is estimated to date to 1,000-650 years BP and temporarily appeared at sites along the lower Churchill River as well as the Reindeer Lake region. The pottery vessels are globular in shape, decorated with cord-wrapped tool marks.

Narrows pottery has been recovered from sites on the western edge of the province around places such as Buffalo Narrows and Peter Pond Lake. These too, are

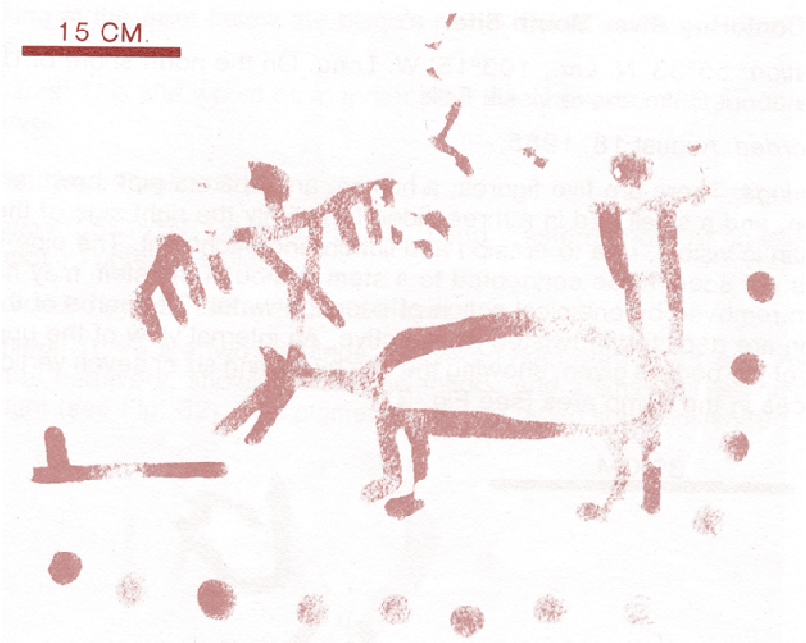
Narrows

Selkirk

globular or conoidal pottery vessels, but their exteriors are cord-roughened. This would be created by using a cord-wrapped paddle. The resulting pattern is horizontally-oriented. Their lip and rim decoration consists of a row of punctates. Narrows pottery assemblages also include small side-notched projectile points.

From about 600-300 years ago, people of the Selkirk culture occupied the mixed woods-boreal forest zone in northern Saskatchewan. The pottery vessels are characterized by their globular shape and fabric impressed exteriors. The decoration is similar to that of Narrows pots with a single row of punctates and cord-wrapped tool impressions, but sometimes there are incisions on the lip. The rest of the archaeological assemblage of the Selkirk culture includes small side-notched projectile points, ground stone axe blades, and bone tools. The Selkirk people are believed to be the ancestors of the present day Woods Cree.

Rock painting sites have been located on various cliff faces in northern Saskatchewan and many have been associated with the Selkirk, Laurel or Blackduck cultures, although exact dates cannot be determined. These sites are positioned on rock exposures, usually at the mouths of rivers or near rapids. The paint was made from a mixture of red ochre and fat, and the paintings depict images such as animals and spirit beings.

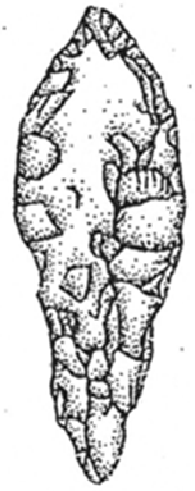


Reproductions of rock paintings (pictograph) at Uskik Lake on the Churchill River, Face II (from *The Aboriginal Rock Paintings of the Churchill River* by Tim E.H. Jones (2006)).

3.1.3 The Far Northern Zone

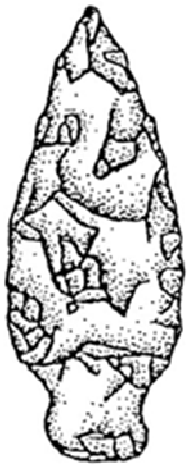
The landscape in the far northern region of Saskatchewan is dotted with lakes, the largest of which include Athabasca, Black, Cree, Wollaston, and Reindeer Lakes. Subsistence strategies focused on hunting Barren-ground Caribou that are migratory in this area. The archaeological culture history the Far Northern Zone closely follows those of the Northwest Territories, Nunavut, and northern Manitoba.

The oldest cultural group living in these far northern areas is an Early Precontact group known as Northern Plano (8,000-7,000 BP). The projectile points are very similar to those of the Agate Basin culture found in southern Saskatchewan. There is also a possibility that this influence may have been from Alaska, where an Agate Basin site dates to 10,500 years ago.



Arctic Small Tool

There is a gap in the culture history after the Northern Plano culture. It is not until 3,500 year BP that the Arctic Small Tool culture appears and they are present until about 2,600 BP. This culture has also been found in Alaska and in coastal regions of Arctic Canada. Both inland and coastal sites would have been occupied by these people because they were following the migratory patterns of the caribou. Unfortunately, there have not been any excavated sites dating to this time period in northern Saskatchewan; evidence of the Arctic Small Tool tradition has only been found as surface collections around Lake Athabasca, Black Lake and Reindeer Lake.



Taltheilei

Following, is the Taltheilei culture (2,600-250 BP), which is also present in Nunavut and the eastern parts of the Northwest Territories. There are different styles of projectile points associated with Taltheilei, some being larger stemmed points and others are smaller atlatl sized points. Another characteristic tool is a disc-shaped scraper called a chithos. Taltheilei artefacts are found in the far northern part of the province, but have also been collected from areas around the upper Churchill River.

3.2 Contact Period

Before the arrival of Europeans on the prairies, trade goods from eastern Canada filtered into Saskatchewan through trade networks around the mid 1500s. This period, until the time of a consistent European presence, is known as the Protohistoric Period. Over the next 200 years, European settlement continued to increase in Rupert's Land and by the mid 1700s, fur traders had established permanent trading posts in western Canada. This is the beginning of the Contact Period.

English and French fur trading companies were in direct contact with First Nations people in the mid 1700s. Beaver pelts were highly sought after by European countries to be

made into men's hats. Furs of other animals were also valuable and were often made into coats and other types of clothing. The two largest, and very competitive, companies were the Hudson's Bay Company (HBC) and the North West Company (NWC). The HBC first established posts on Hudson's Bay and used the strategy of First Nations people bring furs to these posts. French companies positioned themselves in Manitoba and then began to build posts along the Saskatchewan River (sites known as François-Finlay, Thorburn's House, and Grant and McLeod sites). This forced the HBC to move further inland, and as a result, Cumberland House was founded in 1774 on the Saskatchewan River. This rivalry ultimately ended in 1821 when the two companies merged under the HBC name. The HBC still survives today – you may know it better as The Bay. Hundreds of fur trade posts existed in Saskatchewan and many of these have undergone archaeological investigations. Some of these include Fort Pelly, Fort Carlton, and Fort Pitt. These can be visited by the public, as some have interpretive signs and/or reconstructed buildings.

As years passed, the buffalo became targeted for their hides, while the hunting and trapping of beaver and other small game decreased over time. American trading companies were profiting from the buffalo robe trade in the United States. Métis people from Red River (Winnipeg) in Manitoba became heavily involved in the buffalo robe trade and soon bison numbers were very limited in this area. As a result of this, Métis people moved further west into Saskatchewan to take advantage of the large bison herds. The further west these groups travelled, the further away they were from home, forcing Métis families to setup wintering villages in several areas of southern Saskatchewan. An example of this type of settlement is Petite Ville, a provincial historic site, situated on the South Saskatchewan River just south of Batoche.

By the mid to late 19th century, there was an increased presence of European and American traders in Saskatchewan. Some American traders even worked out of fur trade posts in Canada, such as Farwell's and Solomon's posts, who became involved in the Cypress Hills Massacre. The West continued to become dangerous and out of control, and finally in 1875, the North-West Mounted Police setup their first post at Fort Walsh. This important site in Saskatchewan history is designated as a National Historic Site.

By 1870, there were major changes concerning the people living in Saskatchewan. The bison had almost disappeared from over-hunting and Treaties were signed by the government of Canada and First Nations people. This essentially ended the traditional lifestyles lead by First Nations people.

The early 1900s was a time when settlers began to establish homesteads across the southern portion of the province. Immigrants came from many different countries, including: Ukraine, France, Russia, the United States, Belgian, and Hungary, to name a few. Many of these people congregated in settlements, such as Kirilowa and Ospennia, both Doukhobour villages, and the colony at Cannington Manor, an English community. These sites, and several others, have been explored archaeologically to better understand how people lived, how they adapted to living in a different country, and how they maintained their cultural identity.

Chapter 4: Saskatchewan Landscapes

4.1 Introduction

This section of the educational guide is directly linked to the "Map of Saskatchewan Archaeology" created by the Saskatchewan Association of Professional Archaeologists (SAPA) in 2005. This map was produced with the intention to help you learn more about Saskatchewan archaeology. SAPA encourages everyone to visit the interpreted archaeological sites within the province and to have fun learning about the unique history of the places and people who lived here. It is hoped that the more people know about archaeological sites in Saskatchewan, the more they will be respected and protected. The Saskatchewan landscapes discussed below each correspond to an area outlined on the front of the map. Each area is indicated on the map by a green diamond (with the number inside) with a short write-up positioned along the perimeter.

How to use this map: The front of the map displays the locations of all known archaeological sites in Saskatchewan (as of 2005), along with brief discussions on regional variation and an explanation on site locations. For those who would like to visit heritage places, a list of available sites and relevant museums is included. The back of the map details the archaeological culture history of the province, addresses some basic questions about archaeology, and contains a glossary of terms and abbreviations.

4.2 The Athabasca Region (#1 green diamond on map)

Written by Alan Korejbo

Introduction

Little is known of the archaeology of the Athabasca region. Some of the reasons for this are the remoteness of the area, the difficulties of finding archaeological sites in wooded areas, and the poor preservation of plant and animal materials in the boreal forest. Travel is difficult in this region. Floatplanes and helicopters are needed to get into most of the areas. Canoes and boats are the best and least expensive ways to travel through this area, but canoes and boats cannot get everywhere; only large lakes and major rivers and streams are archaeologically explored. As a result of these challenges, archaeologists must borrow knowledge from nearby areas that have been better studied, such as the Northern Plains area to the south, the northern forests of Alberta and Manitoba, and the tundra area of south eastern Northwest Territories and south west Nunavut.

Caribou and People

In general, precontact life in the Athabasca Region was dependent on the barrenland caribou. Barrenland caribou herds winter in the Athabasca area of Saskatchewan. These caribou herds had a somewhat regular life-cycle. In the spring, they were in their calving grounds in the barrenlands of Nunavut and in the fall they would move south toward the boreal forest of Saskatchewan's Athabasca area where they spend the winter. Dependant on this resource, ancient hunters would follow the movement of these barrenland caribou, spending the spring and summer in the northern portion of the caribou range in Nunavut and the Northwest Territories, and spending winters in the Athabasca Region of Saskatchewan. Although barrenland caribou ranges have shifted due to climate change for the last 8,000 years, the human strategy of following these herds has most likely been similar throughout the entire 8,000 years of pre-contact history in the Athabasca Region.

Early Precontact Period: Northern Agate Basin

The entirety of northern Saskatchewan was deglaciated by 8,500 years ago. Environmental studies in nearby areas suggest that the climate during this time was warm and dry. This warm and dry period caused the forest to move much further north than it is today. As a result, the caribou range would have also been much further north. Northern Saskatchewan's Athabasca Region would have been the very extreme southerly limit for the herds. Ancient hunters specialized in barrenland caribou hunting would have rarely needed to move into the Athabasca Region for this reason; this also explains why so little archaeological evidence is found relating to this period in this area. These highly specialized barrenland caribou hunters of the Saskatchewan Athabasca Region left projectile points that we now call Northern Agate Basin points.

Middle Precontact Period: Shield Archaic

Between 6,000 and 3,500 years ago, people that used Shield Archaic projectile points may have hunted and lived in the Athabasca Region of Saskatchewan. Shield Archaic is found north of the Athabasca Region in the Northwest Territories and Nunavut. There has been no evidence of Shield Archaic found in northern Saskatchewan; however, these people had a similar livelihood as people during the Northern Agate Basin period, following and hunting barrenland caribou. The climate during this time period was also similar to that of the previous period. Northern Saskatchewan would have been the extreme southern part of the barrenland caribou range. Shield Archaic has most likely not been found in the Athabasca Region because the people during that period would have only rarely entered into northern Saskatchewan and there have not been very many archaeological investigations in this area.

Pre-Dorset or Arctic Small Tool Tradition

At about 3,500 years ago, the climate had turned very cold. People adapted to this changing climate by moving to different areas. The Shield Archaic moved east into what is now northern Manitoba. Facing colder climactic conditions on the Arctic coast as well, a group of people often called the Pre-Dorset quickly moved away from the coast and began using

Saskatchewan's Athabasca District. These people were once coastal hunters, but had changed the way that they lived to hunting barren-land caribou. The Pre-Dorset is quite different in a number of ways; the most obvious to archaeology is the stone tools that they used. The tools that the Pre-Dorset used included projectile points that consisted of stone end and side blades slotted into bone points. By 2,700 years ago, it is believed that these people returned to the Arctic coast. This culture in Northern Saskatchewan is also known as the Arctic Small Tool Tradition.

Taltheilei

The Taltheilei were the next group to move into the region about 2,700 years ago. Just as the cultures before them followed a way of life by following and hunting the barren-land caribou, so had the Taltheilei. The Taltheilei period is broken into the early, middle and late periods, with each period displaying different projectile point types. During the late Taltheilei period, the use of bone projectile points increased. The Taltheilei also used native copper projectile points in northern Saskatchewan.

Historic Period: Fur-Trade

Although Lake Athabasca and area was known earlier to European-Canadians, it was not until the late 18th century that the demand for furs led traders to the fur-rich Athabasca area. Peter Pond was the first to build a trade fort in this area, which was built on the Alberta side of Lake Athabasca. At least a few other forts were established on the Saskatchewan side of Lake Athabasca soon after, but little is known about these Fur-trade posts.

Mining and Prospecting

Precious minerals also played an important part in the history of the Athabasca Region of Saskatchewan. Rumors of gold, silver and other valuable minerals in the early 1900s saw an increased number of prospectors in the Athabasca Region. With the discovery of gold in the 30s at Goldfields on the north eastern edge of Lake Athabasca, even more people went into the area. Pitchblende, a mineral with uranium in it, was discovered at Lake Athabasca late in the 19th century, but was not recognized until the 1930s. It isn't until the 1940s when uranium is seriously explored in the Athabasca Region and the first uranium ores were mined. Uranium mining continues to be important in the Athabasca Region of Saskatchewan into the 21st century.

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4.3 The Churchill River – Reindeer Lake Basins (#2 green diamond on map)

Written by Talina Cyr-Steenkamp

Introduction

The Churchill River and Reindeer Lake Basin are located in the Boreal Shield of Saskatchewan. Situated in the Churchill River Upland Ecoregion, this landscape has very uneven topography. The Precambrian bedrock is exposed in much of the area so that even today the terrain can be rough and jagged. Soils can develop on the surfaces of the bedrock but they take a long time to develop and are usually less than 3m thick. This landscape was not glacier-free until approximately 9000 years ago. After the glacier retreated the area was under water, as part of Glacial Lake Agassiz. The Reindeer Lake Basin is a remnant of this gigantic lake. The Churchill River itself is a series of small lakes that are connected by rapids and the "river".

Since the retreat of the glacier and the landscape has settled into an inviting environment for plants, animals, and of course humans. The majority of plant life is black spruce with jack pine growing in dry, sandy plains. Mosses, small shrubs, and herbs grow as groundcover. Because of forest fires and the varying rates of return for different plant species, there are six different vegetation environments common to the Churchill River Uplands. They are categorized as the following: black spruce forest, jack pine forest, white spruce forest, mixed wood forest, peatlands, and wetlands. The majority of the land is vegetated.

The Churchill River Uplands have a high diversity of plant-life and as a result also have a rich wildlife population – in fact, the richest of anywhere else on the Shield. Black bear and moose are common and both barren-ground and woodland can be found. Beaver, porcupine, northern flying squirrel, muskrat, river otter, and a variety of other rodents as well as gray wolf, red fox, weasels, lynx and skunk can often be seen. A very high concentration of bald eagles has been recorded in the Uplands. In total, 204 bird species have been recorded in the ecoregion, as well as 30 fish species and five species of reptiles and amphibians.

The dominant forms of human activity affecting the landscape today are hunting, trapping, fishing, and tourism. Gold and uranium mining as well as lumber are also growing industries in the ecoregion. The amount of human occupation in the region today, however, is significantly less than the southern half of the province.

Precontact Period

The majority of the known sites in this region are focused on the Churchill River or Reindeer Lake. This is because of the activities of modern humans. Tourism occurs in or near the rivers and other water courses rather than the forested areas for the most part. This is not to say that there are not sites farther away from the water sources, but rather that people have not been looking there for sites.

The most identifiable archaeological sites of the Churchill River Uplands are the rock paintings along the Churchill River itself and its associated tributaries and lakes. Over 70 rock painting (pictograph) sites have been identified and recorded. These are often made with red

paint which would have been made out of ochre (often red but could also be yellow). The ochre would have then been tempered with an oily substance such as beaver tails, fish eggs, moose or deer hooves, bear grease, bird eggs, or animal or fish skins. This would be mixed together and then applied using either fingers or brushes made out of sticks, fibres, sharp bone, or feathers. However these were made, they were made to last. The rock art is very difficult to date but based on lichen growth, artefact remains below the rock faces (if any), the drawing of historical items (such as rifles), and historical records can indicate an approximate age. It would appear that the vast majority of the rock art was painted prior to European contact in the North approximately 300 years ago.

Reindeer Lake is Saskatchewan's second largest lake (what is the largest?). Reindeer Lake drains into the Churchill River and it is likely that people who would have been travelling the river by canoe would have also travelled to Reindeer Lake. Does anyone know what a traditional canoe from northern Saskatchewan would have been made out of? The lake has many islands and would have been an ideal place to camp as well as around the perimeter of the lake.

There are several known portages in association with the Churchill River area. When a water course (i.e. river) becomes too shallow or otherwise difficult to pass or when a group needs to travel to a different water course, they would portage. This means they would transport their boats, supplies, etc. overland between navigable waterways. Portage La Loche (also known as Methy Portage) is a well known portage in Saskatchewan that was established to connect the Churchill and Athabasca river drainage systems. Peter Pond, a northern fur trader, travelled this portage in 1778 and at the time he recorded that it was a well-known passage that had been used for a long time already. It is not known just how old it is.

Contact Period

There is little evidence found that shows how long people have been living in the Reindeer Lake basin. There are a lot of historical documents, however, recording a lot of activity. David Thompson recorded travelling there in the late 1700s. Do you know who David Thompson was? At least 15 fur trading posts were built along the lake in the 1790s and early 1800s. Some of them were called Henry's House (1803), Deer Lake North Post (1807-09), and South Reindeer Lake Post (1875-1930 now the modern community of Southend).

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4.4 The Mostoos and Grizzly Bear Hills (#3 green diamond on map)

Written by Alan Korejbo

Introduction

Cultures from the Northern Plains have lived and hunted in the Mostoos and Grizzly Bear Hills throughout most of its culture history. Projectile points have been found in this area that are similar to those that were used on the Northern Plains. Some of these points were manufactured from stone materials that came from south western Saskatchewan or possibly even as far as North Dakota. However, people from the northern barrenlands, as well as from the more easterly forests, have also lived and hunted here.

Bison and People

In general, through most of the precontact period, the people that lived the Mostoos and Grizzly Bear Hills were plains cultures. Environmentally, this may suggest that the Northern Plains once extended into this area supporting large herds of plains bison. Another possibility is that these plains adapted hunters may have gone into the wooded areas of the Mostoos and Grizzly Bear Hills to hunt the bison or barrenland caribou that may have been feeding on the pockets of grasslands within the area. Our understanding of Northern Plains bison hunters in the more southerly areas of the northern United States is that they were specialized bison hunters who hunted in large groups, killing large numbers of bison; however, archaeological evidence from the Canadian portion of the Northern Plains shows us that the more northern precontact hunters were not as specialized, using a more opportunistic and generalized hunter-gatherer strategy. It is most likely that the precontact hunters of the Mostoos and Grizzly Bear Hills followed this type of lifestyle, using all of the resources that were available to them, and not just concentrating on bison.

Early Precontact or Paleoindian Period

The earliest archaeological culture in the Mostoos and Grizzly Bear Hills is the Early Precontact or Paleoindian period. The middle to late Paleoindian period is represented in Buffalo Narrows, which is just east of the Grizzly Bear Hills, with projectile points that closely resemble Folsom, Midland, Alberta, and Agate Basin. A “stubby” Clovis point has been excavated in an area adjacent to the south west of the Mostoos Hills, suggesting that this culture may have also used the Mostoos and Grizzly Bear Hills. A similar projectile point found at Charlie Lake Cave in Northeastern British Columbia has been dated to 10,700 BP. Early Paleoindian archaeological sites are usually found associated with mega fauna remains (i.e. mammoth and mastodon) or large game, such as bison. Mammoth or mastodon blood has been found on a Paleoindian point from the Athabasca area of Alberta; this may suggest that early hunters in the Mostoos and Grizzly Bear Hills may have also been mammoth or mastodon hunters. Later Paleoindian hunters in the Mostoos and Grizzly Bear Hills were most likely generalized hunter-gatherers who hunted the available bison, and/or caribou in the area. This period likely spanned from about 10,000 years ago to about 7,000 years ago.

Middle Precontact Period

The Middle Precontact period dates to about 5,000 years ago to about 3,000 years ago in this area. The Middle Precontact period is represented in this area by projectile points from the Oxbow, McKean, and Pelican Lake complexes. There is evidence that this area had more use during this time period than the one before. The projectile points found here are quite similar to the ones used by northern Plains bison hunters. A Duncan/Hanna projectile point excavated at the Clearwater River, Saskatchewan, made from a stone that came from south western Saskatchewan or possibly from North Dakota, suggests that the people from the Mostoos and Grizzly Bear Hills traded with people from the Northern Plains. Animal remains from the Duckett site, which is on the west side of Cold Lake, show us that Middle Precontact people in this area had a generalized hunter-gatherer way of life as opposed to being specialized bison hunters.

Taltheilei

About 3,000 years ago, temperatures got much colder than they are today. The forests responded by moving further south. This also resulted in a more southern caribou range. About 2,600 years ago, people that followed and hunted caribou began to live and hunt in the Grizzly Bear and Mostoos Hills area. Their projectile points have been found at McKusker Lake and Buffalo Narrows. Many of these projectile points are made from salt and pepper quartzite that most likely comes from the Athabasca District of Alberta or Saskatchewan meaning that these people either travelled to these more northerly areas, or they traded with people from these areas. The Taltheilei people are the ancestors of the modern Dene, who continue to live and hunt in this region.

The Woodland Period

The introduction of pottery to the Mostoos and Grizzly Bear Hills signaled the beginning of the Late Woodland period about 700 years ago, lasting to about 200 years ago. Selkirk pottery is seen in assemblages at McKusker Lake in the Grizzly Bear Hills as well as at Buffalo Narrows. Selkirk pottery is believed to have been left by the ancestors of the modern Cree.

Historic Period: Fur-Trade

The area immediately east and north of the Mostoos Grizzly Bear Hills area was of key importance during the early historical period. In the latter half of the 18th Century, Ile-a-la-Crosse had become a major center that used the Beaver River to access the prairies, and the Upper Churchill River system and Methye Portage (between Lac La Loche and the Clearwater River) to access the fur rich areas of the Athabasca area. Fur trade posts have been at Ile-a-la-Crosse almost throughout the entire fur trade period. Lac La Loche, Methye Portage and the Clearwater River were used to get into the Athabasca district, and were used between 1778 and 1880. The Beaver River was used by both the North West Company and the Hudson's Bay Company to travel to and from what is now British Columbia during the beginning of the 19th Century. The Beaver River's importance, although for only a short period of time, was just as important as the North Saskatchewan River.

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4.5 The Forks – Nipawin Area (#4 green diamond on map)

Written by Talina Cyr-Steenkamp

Introduction

Since the Forks-Nipawin areas of the province were deglaciated approximately 12,000 years ago, they have been located in the Boreal Transition Ecoregion. The area is a transition zone between grasslands (to the south) and the Boreal Forest (to the north). The landscape has gentle slopes. There are many rivers and river valleys in the area but few lakes. By looking at the map, can you name any rivers that run through this region?

This Ecoregion is mainly composed of a deciduous boreal forest with some open farmland today. Approximately 50% of the area is open, but most of this is cultivated. In addition to agriculture, the land is currently used for a number of activities, including forestry, hunting, fishing, and recreation. In the forested areas, the most common vegetation includes jack pine, black spruce, white spruce, and tamarack. In the less dense areas, aspen, shrubs (including bearberry and saskatoon berry), and grasses are more common. The main grasses are needlegrasses, wheatgrasses, and plains rough fescue.

There are many species of wildlife in this Ecoregion, in large part because of the rich vegetation, numerous rivers and streams, and relatively low human occupation. Some of the mammals present are moose, elk, white-tailed deer, black bear, raccoon, coyote, beaver, and other smaller rodents. Common birds are the gray jay, boreal chickadee, loon, grebes and warblers. Red-sided garter snake, tiger salamander, wood frog and Canadian toad are common as are several fish species. These include northern pike, walleye, yellow perch, lake whitefish, lake trout, white sucker, burbot, and fathead minnow.

Precontact Period

In modern times, hydroelectric dam projects have been developed (including the François-Finlay and E.B. Campbell dams) which have resulted in large-scale archaeological research in the area. Many sites have been identified as a result of these studies – sites that are unfortunately now underwater or otherwise impacted by the building of the power plants. Some of these sites include Bushfield West, Bushfield East, Municipal Camp, and Lloyd sites, all of which are Selkirk sites (300 to 600 BP).

These are by no means the earliest sites located in the Forks-Nipawin area, though. Immediately after the glaciers receded, the landscape was covered by one of two immense glacial lakes – Agassiz and Saskatchewan. This has since created the river valleys that we can see today. Human occupations have been found along many of these river banks and terraces dating to a very early time. A well-known example is the Below Forks site. This site is located just east of the "Forks" – where the North and South Saskatchewan Rivers join. This site has been dated to more than 6000 years old. The site has multiple layers, ranging from very recent to the Oxbow and Mummy Cave periods. Why do you think that humans have chosen to return to this site for so many millennia? What needs/resources would this type of environment provide?

Other early sites that have been recorded in the Nipawin area include the Permanent Camp site and the Minnie site, each dating to the Middle Precontact Period (sometime between 7,500 and 5,000 years ago). Both of these sites were found on terraces along the South Saskatchewan River. Another site called the Gravel Pit site, also located on a terrace of the South Saskatchewan River had artefacts dating from the recent past to the Oxbow Period (possibly as old as 5,000 years). The Crown site is another site that dates from the very recent past all the way back to the Middle Precontact Period (at least 4,300 years old). It is located along the terrace of an unnamed river in the Nipawin area. What are similarities between all of the sites mentioned in this paragraph? If you were an archaeologist, where would you be sure to investigate for sites today?

Contact Period

From the retreat of the glaciers to today, the Forks-Nipawin area has continued to be occupied by humans. When European traders first came to what is today called "Saskatchewan" they began to set up fur trading posts. There are dozens of fur trade posts recorded in the Forks-Nipawin area dating from the mid-1700s to the mid-1900s. Some of them include: Fort la Jonquière (~1751) [early French post], François-Finlay (1768-73) [Independent (Ind.)], Thorburn's House (1789-91) [Northwest Company (NWC)], Pichet's House (~1790) [Ind.], Grant's Post (1793-95) [Ind.], Fort Nipawi (~1816) [Hudson's Bay Company (HBC)], Fort a la Corne I (1850-85) [HBC], and Fort a la Corne II (~1885-1930) [HBC]. Fur trade posts would have been stationed near waterways (i.e. rivers). Why would they choose to set up posts near the river?

After the fur trade began to decline, other activities start to occur in this region. The Neufeld Sawmill is an example of a lumber mill that was built in the 1930s. The Loos Cabin site is a sawmill that was formed in the 1940s. These are both also located on a terrace of the Saskatchewan River.

It is clear from understanding the archaeology of an area that a lot of the activities that were going on in the past (hunting, fishing, forestry, etc.) are still common in the Forks-Nipawin area today. What created the archaeological sites is also creating modern sites. This is just one reason why it is important to look at the entire site to understand whether it is recent or old. If a person removes an artefact from a site and does not record it then the "date" of the site may be removed. It is not always possible to radiocarbon date bone or charcoal or otherwise estimate how old a site is. Do you think that one day the hydroelectric power stations will also become archaeological sites? What do you think will remain to be "rediscovered" at them in the future? What information might archaeologists be able to use to "date" the sites?

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4.6 The Saskatoon Area (#5 green diamond on map)

Written by Talina Cyr-Steenkamp

Introduction

Saskatoon is currently Saskatchewan's largest city. It was not always an environment where people could live however. Until approximately 12,500 years ago, this area was covered in approximately a one-kilometre thick sheet of ice – the Laurentide glacier. As the ice continued to retreat, the low spots in the landscape were filled with meltwater, creating an enormous lake called Glacial Lake Saskatchewan. Eventually, plants and animals would have begun to move into the area and, soon after, humans. Can you tell what would have been the lowlands in the Saskatoon area?

Today, Saskatoon is situated on the Saskatoon Plain region of the Moist Mixed Grassland Ecoregion. The landscape has a level topography with river valleys and gently rolling hills, which are remnants of the glacial lake. The modern soil is normally dark brown and loamy. However in the northern areas the ground becomes sandier with a lot of gravels in it. The most common plants to be found in this region are wheatgrasses and speargrasses as well as blue grama grass, rough fescue, sedges and June grass. Sage grass, mosses, lichens, prairie rose, and snowberry, choke cherry, wolf-willow, saskatoon, and willow bushes are also common. Also found are Canada wild rye, Indian rice grass and other edible plants. A total of 51 mammal species have been recorded in the Moist Mixed Grasslands. Most common are big brown bat, white-tailed jack rabbit, skunk, coyote, fox, mule and white-tailed deer, pronghorn, porcupine, ground squirrels, and a variety of other rodents. Bison were also at one time very common but were over-hunted and their numbers declined at least by the late 1800s. There are also 198 species of birds recorded, 41 species of fish, and a variety of reptiles and amphibians which all help to create a plentiful and diverse habitat.

Precontact Period

Wanuskewin Heritage Park is perhaps one of the most famous areas known to have been occupied by Saskatchewan's early peoples. In fact, 19 precontact sites have been recorded in the Park and the Saskatoon Archaeological Society followed by the University of Saskatchewan have been helping to understand the history of the Park since the 1930s. The majority of the Wanuskewin sites are found along the floor of the Opimihaw Valley. This valley would have been full of water until at least 7000 years ago so archaeologists do not expect to find artefacts that are older than that time period. If you would like to visit archaeologists digging at Wanuskewin, you can usually find them there between May and June of each year.

There are more valleys like the Opimihaw Valley in the Saskatoon area. Have you seen one? The valley bottoms provide water and are a welcoming environment for plants and animals and valley walls are a valuable source of protection from the weather and. The valley walls can also be used as a natural method of hunting bison or other animals. At Wanuskewin alone, there are three recorded bison jump sites. In addition there are camping sites, meat processing sites, a medicine wheel, stone tool workshops, and much more.

Wanuskewin is not the only area with recorded precontact sites in the Saskatoon area. Dozens of sites have been recorded by professional archaeologists and volunteers. Here are a few of them. The Norby site was found during residential development in the city. It is a 5700 year-old bison hunting site that most likely was used in the winter. It is believed that the hunters created a snow trap in order to assist in the hunting of these animals. The Gowen I and Gowen II sites are also located within the limits of Saskatoon. They were found in 1977 during city development. Both sites date to approximately 6000 years ago. The Tschetter site is a more recent bison hunting site located just north of Saskatoon. It was occupied approximately 1000 years ago. The Hartley site is another precontact bison hunting site that is located in the southern boundaries (currently) of the city of Saskatoon. It was first discovered in the 1950s and is approximately 750 years old. Does anyone know how archaeologists get these dates? (Radiocarbon dating using organic material such as bone or charcoal is the most common way to date sites less than 50,000 years old).

Contact Period

Saskatoon has played an important role in Saskatchewan's historical or contact period as well. There are a variety of fur trade posts, Métis sites (ex. Petiteville – a Métis *hivernant* site), and homestead sites, as well as the changes that Saskatoon itself has seen since the first settlers appeared and the city was established in the 1880s, led by John Lake.

John Lake was a former Methodist Minister and he, along with J.A. Livinston, also from Ontario, founded the Temperance Colonization Society in 1881. The Society applied for a land grant in the Canadian West (where Saskatoon sits today). The colony of "Nutana" was developed on the east side of the South Saskatchewan River and was developed as a temperance colony. In 1890, the railway came to Saskatoon, but on the opposite site of the river. Therefore, all developments seemed to focus on that side of the river (the west). Now we have a population that is split in two by the river. The land on the west side became known as "Saskatoon". Finally, a third settlement called "Riversdale" was started. It was located immediately west of "Saskatoon" on the opposite side of the train tracks. The three settlements did not officially join together until May 1906 when the City of Saskatoon was established.

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4.7 The Quill Lakes (#6 green diamond on map)

Written by Laura Foley

Introduction

The Quill Lakes area comprises an extensive area of east central Saskatchewan. Named after the three saline lakes (Big, Little and Middle Quill), it is framed by the Touchwood Hills to the south and the northern boreal forest. The area has not been subject to much excavation in part due to the lack of cultural resource management projects in the area.

The region is best known for the three Quill Lakes, named for the bird quills collected and shipped to England for use as writing pens. All the lakes are saline and vary in depth. Their shores are alkaline flats. The adjacent marshy wetlands and the shore are used for a wide array of migrating birds. A survey in 1993 counted 197,155 shorebirds. It is an important stopping area for the rare and endangered piping plover. Local communities have now posted bird watching sites along the lakes. The Touchwood Hills are also a product of glaciation and are described as "hummocky moraine". Sloughs, small lakes and creeks lead either into the Quill Lakes or the Assiniboine River. The Carlton Trail extends through part of this area so that Fort Pelly, Fishing Lake and the Touchwood Hills Fort could be accessed.

Precontact Period

In order to better understand the Quill Lakes area, Novecosky for his M.A. thesis (2001) undertook a study of 15 collections gathered primarily by local farmers and the Wynyard Museum. Studying over 35,000 artefacts, he was able to locate a provenience/site location for about 1290. The general area around the Quill Lakes had 27 known sites before his thesis. Part of his study then expanded to locate another 74 sites and assign a typical Borden number so they would become part of the archaeological record of the province.

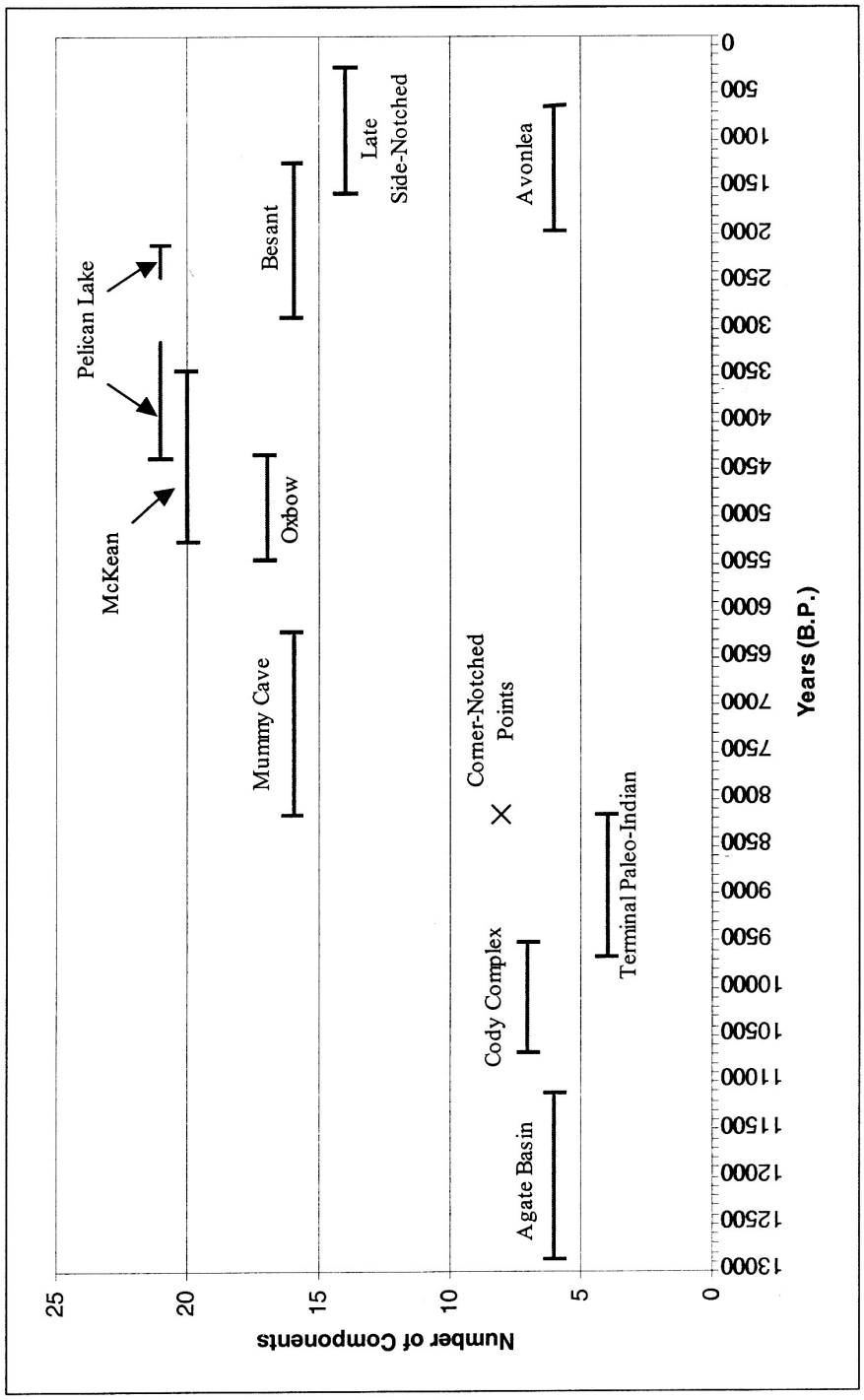
The lithics collected by farmers primarily in cultivated fields show that the occupation of First Nations groups in this area existed from earliest times. Novecosky not only thanked the group for sharing their finds, he has summarized totals and arranged them graphically over time. Can you use his charts to better understand how the shape and composition of points allows us to date a site? (see figures below) This survey combined with radiocarbon dating illustrates that aboriginal peoples in this area were here at least 13,000 years B.P. (Before Present) and were still using stone points up to at least 500 years B.P.

About 50 to 60 km north of the Quill Lakes lies the southern edge of the boreal forest. This area was not part of Novecosky's study. Look at the SAPA map and suggest why this area had not been studied to any great extent.

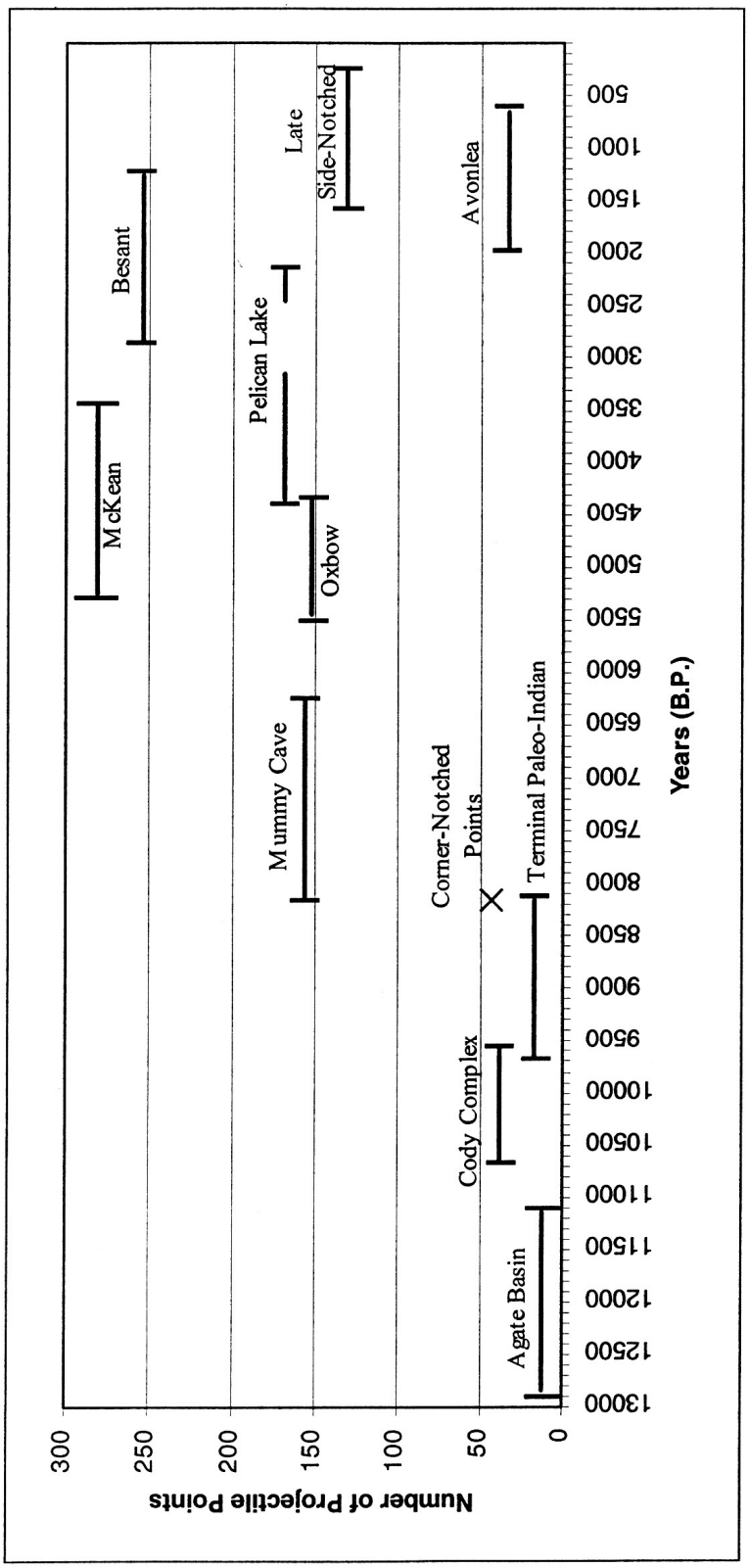
Contact Period

Within the general area are several Hudson Bay Company (HBC) forts. They were connected to the Carlton Trail which extends 700 km from Fort Carlton, SK to Fort Garry (Winnipeg, MB). The trail continued west for another 980 km from Fort Carlton to Fort Pitt and Fort Edmonton. Fishing Lake Post directly east of the Quill Lakes was built approximately

1805. To the north we have remains of several small trading installations; the Egg Lake Guard House (built 1853), the Nut Lake Northwest Company (NWC) post (c. 1808) and close by the Nut Lake HBC post (1881-1916). Last Mountain House (#14 on SAPA map) was an HBC post reconstructed in 1869. Also see Touchwood Hills post (#12 on SAPA Map) constructed in 1879. Fort Pelly on the Assiniboine River (Black #14) was built in 1824 and then moved and rebuilt close by in 1856. That area merits a different study since it includes both NWC and HBC posts.



From Novecosky 2002



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4.8 The Neutral and Senlac Hills (#7 green diamond on map)

Written by Karin Steuber

Introduction

The Neutral and Senlac Hills are a visible topographical feature located in west-central Saskatchewan approximately 30 kilometres east from the town of Macklin and approximately 50 kilometres west from the town of Unity. The area is dominated by farming; however, oil and gas development has increased over the past number of years.

Geology

The Neutral and Senlac Hills are situated at the northern limit of the Moist Mixed Grassland Ecoregion, which is found across west-central Saskatchewan and extending south through Moose Jaw and Regina towards Estevan. This ecoregion is characterized by rolling hills and is used for cattle and crop production. Ecoregions can be further subdivided into distinct landscape areas of which the Neutral and Senlac Hills falls into one known as the "Senlac Hills Upland."

The area surrounding the Neutral and Senlac Hills is underlain by the Bearpaw formation, which formed during the Late Cretaceous period, approximately 70 to 74.5 million years ago. The Bearpaw formation is mainly a marine sandstone and shale deposit; however, it also includes beds of iron nodules, bentonite and chert pebbles. This was the result of a prehistoric inland sea that covered part of the province. This bedrock source is soft and as such is easily eroded by glacial action. Deglaciation of the Western Canadian provinces began to occur around 18,000 years ago. By 12,000 years ago, the area around this region appears to be at the edge between the receding glacier and newly exposed land and water. The area was completely deglaciated around 11,500 years before present. The retreat of glacial ice caused the formation of the Senlac Hills Upland area. As the glacier retreated to the northeast, it removed materials (rocks and dirt) from the soft Bearpaw formation that makes up the bedrock geology of the area to the immediate south. As glacial ice continued to recede, it deposited the materials further to the north in the form of hilly uplands, known as the Neutral and Senlac Hills.

The Early, Middles and Late Precontact Periods

Much of the archaeology known in this region is due to oil and gas exploration. No large-scale research projects have been done here. What information does exist is found in Historical Resources Impact Assessment (HRIA) reports completed due to oil and gas developments, such as pipe lines. The culture history of the area likely extends back to the Early Precontact period (12,000 - 7500 years B.P.) in the form of isolated surface finds of palaeo-indian projectile points such as Clovis, Eden as well as Cody knives found in areas to the north, west and east. Isolated finds from the Middle Precontact period (7500 to 2000 years B.P.) and the Late Precontact period (ca. 2000 to 200 years B.P.) also exist in this region. Each of these periods can be further subdivided into specific cultural complexes and phases. Many of the artefacts recorded in reports are made of a type of rock known as quartzite. These artefacts are items such as flakes, cores, and shatter.

Precontact archaeological sites in this area include the more commonly found site types found on the Northern Plains such as kill sites, camp sites including tipi rings, and stone cairns. However, also found within this region is a site of a more significant and uncharacteristic nature such as a possible human effigy. Not a lot of information is known about this effigy (rock formation) and it was only recorded as being found as of 1994. It is in the shape of a human and is approximately 5 metres in length by 2.5 metres in width. The archaeologists who recorded the site noted that it is made up of approximately 34 stone cobbles. A number of effigies as well as other boulder monuments such as medicine wheels and stone cairns can be found throughout the province of Saskatchewan. Effigies can either be found as anthropomorphic (human) or animal figures. In Saskatchewan, animal effigies tend to be more common than anthropomorphic patterns. Ian Brace also noted that sex is commonly depicted in anthropomorphic effigies with males being predominant.

Bison rubbing stones can also be found throughout the area. These large rocks are glacial remnants known as erratics. During glacial retreat these stones would have been deposited by the receding glacier throughout the province. Erratics can vary in size from small cobbles to house-sized boulders. The most famous of erratics is perhaps Big Rock near Okotoks, Alberta, a remnant of the Foothills Erratics Train deposited by the Cordilleran ice sheet approximately 12,000 to 18,000 years ago. The Senlac Hills erratic likely dates to the last Wisconsinan deglaciation, approximately 12,000 years ago and was carried by the Laurentide ice sheet from the Hudson Bay area.

Historically, many large erratics featured prominently in relation to First Nations history. In some cases, erratics can be seen as landmark features or even have spiritual associations. Many erratics are known to be covered in petroglyphs (rock engravings) and pictographs (rock paintings). However, the Neutral and Senlac Hills erratic was used for another purpose. Over the years, wild bison herds would use the rock to scratch themselves in order to dislodge hair and insects. Centuries of bison have worn a deep groove in the earth encircling the rock. In some places, parts of the erratic have been worn smooth from constant rubbing.

The Historic Period

Historical archaeological sites in the Neutral and Senlac Hills area include homesteads, cart tracks, and a surveying pit monument. Of particular interest is the presence of another brass survey monument, which reads "Dominion [King's Crown] Land and Surveys. Imprisonment for Removal 7 Years" and is dated to 1928. In terms of Canadian Fur Trade history, the area was not well known even in to the early 1800s. It is probable that the first complete map of the area was by John Palliser during his 1857-1859 expeditions through western Canada. As well, historic homesteads dating to the late 19th and 20th centuries are recorded in the area. Typically, all that remains of these sites are large rock piles from field clearing, stone houses and barn foundations, as well as rusted metal parts.

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4.9 The Qu'Appelle Valley (#8 green diamond on map)

Written by Talina Cyr-Steenkamp

Introduction

The Qu'Appelle is located in southern Saskatchewan. Beginning near Moose Jaw, SK, it spans east into southwest Manitoba. It spreads from the Mixed Grassland Ecoregion in the west, through the Moist Mixed Grassland and into the Aspen Parkland Ecoregion in the east. The glaciers left this part of Saskatchewan approximately 14,000 years ago. The valley was formed from the melting glacial water. Over time, the amount of water decreased and what is now left is the Qu'Appelle River, now a misfit stream. This river is almost 200 metres lower than the top of the valley.

Today, you can see the Qu'Appelle River as well as several lakes. Underground springs and snow melt add to the water source. All of this moisture has created a welcoming environment for many plants and animals to survive in. Typical plant life includes a variety of grasses, reeds and sedge marshes as well as oak and cottonwood. In the eastern part of the valley, American elm, Manitoba maple, green ash, aspen are also common. Saskatoon, chokecherry, rose, high-bush cranberry, willow, red osier dogwood and elderberry are the typical bushes. Fish species include whitefish, walleye, northern pike, perch, and more. Common mammals found are snowshoe hare, white-tailed jack rabbit, woodchuck, various squirrel and weasel species, pocket gopher, racoon, black bear, mink, coyote, skunk, lynx, deer, antelope, beaver, and fox. Bison and cougar would have been common until the early contact period but because of increasing human activity, they are no longer present.

Early Precontact Period

After the glaciers receded (~14,000 BP), it would not have been possible to immediately live in this part of Saskatchewan. This is because the land was under water, at least partially, and few plants and animals would have been able to survive here either. By approximately 12,000 years ago, the land would have been stable enough to live here. Even so, there have been no sites found dating this old in the Qu'Appelle Valley. The earliest artefacts found are from approximately 9,000 BP. These spear points were found on the ground surface, however, so it is difficult to prove that people were *living* in this area at that time. The types of artefacts found are associated with the Folsom, Clovis, Cody, and Agate Basin cultures.

Middle Precontact Period

The earliest confirmed sites date to approximately 5,500 years ago. Sites have been dated, partially based on projectile point styles found here, including Oxbow, McKean, and Pelican Lake. These sites are found both within and on the top of the valley. The types of sites that have been recorded are campsites, bison kill sites, miscellaneous stone circle sites, and sites of special nature, including burials and rock alignments (effigies).

Late Precontact Period

Several sites date to this time period including Besant, Avonlea, and Prairie and Plains Side-Notched. At this time, the bow and arrow and pottery technologies begin to show up in this area of the province. Different pottery styles can be used to determine different types of groups that would have been living in and around the valley. The types of sites found during this time period are similar to the Middle Precontact Period although there is evidence of fishing during this time frame as well. The Lebret site is an example of a fishing site that is approximately 2,000 years old. The Lebret site has multiple layers but the most significant artefacts found are associated with the Avonlea Complex. What makes it so unique is the evidence of fishing that has not been found at other Avonlea sites. Typically, Avonlea sites show a strong reliance on bison hunting.

Contact Period

Many European sites or sites with European artefacts have been identified in the Qu'Appelle Valley. Fort Espérance near Tantallon, SK and the Fort Qu'Appelle Hudson's Bay Company Post are two of the Contact Period sites in the valley. As well, Métis settlements, missions, and other types of sites showing European influence or presence are spread through and surrounding the valley.

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4.10 The Cypress Hills and Frenchman River Valley (#9 green diamond on map)

Written by Belinda Riehl-Fitzsimmons

Introduction

The Cypress Hills and Frenchman River Valley are found in the southwestern corner of the province. The area includes communities such as Maple Creek, Shaunavon, Ponteix and Val Marie.

Past geological events shaped the land, and people have adapted to its diverse environments since the retreat of the glaciers. Some of the beautiful exposed rock formations throughout the area are about 80 million years old (Upper Cretaceous), with the bedrock of the Cypress Hills being between 16 and 65 million years old (Miocene). The last glacier, called the Laurentide, flowed around the Cypress Hills, leaving it untouched. At an elevation of about 1,392 m, it is the highest point of land in the province.

The Cypress Hills area, found in southwestern Saskatchewan and southeastern Alberta, is a very unique location for many reasons. First, it was the only area in the province not covered by glaciers during the last Ice Age. Second, it contains some of the oldest archaeological sites in the province. Third, it had and still has an exclusive landscape and climate due to its elevation. Fourth, because of its elevation and unique resources, it was a popular area for humans to live.

The Frenchman River Valley extends from the south side of the Cypress Hills through Grasslands National Park and into northern Montana. The Frenchman River is part of the Missouri-Mississippi River drainage system and is over 300 km long. The river formed as a glacial meltwater channel. The locals call the river by another name, based on the white clay in the area. Do you know the other name?

The Frenchman River Valley is also an area rich in palaeontological resources. Palaeontologists, who use some of the same excavation and research methods as archaeologists do, have discovered hundreds of dinosaur fossils in this area. Many of them are on display in Eastend, SK at the T. Rex Discovery Centre and at the Royal Saskatchewan Museum in Regina. The most well-known find is Scotty, who is the largest female *Tyrannosaurus Rex* in the world. Of course, the dinosaurs died a very long time ago, long before humans were here.

A tree specific to the Cypress Hills is the lodgepole pine (a very straight growing tree favoured by First Nations groups for tipi poles). Many flowering plants found growing in mountainous regions can also be found here. Other vegetation common to this area and the Frenchman River Valley is shrubby cinquefoil, wolf willow, saskatoon and snowberry. Mixed medium and short grasses dominate the landscape. Because of the diverse plant species, the animals are also diverse. Antelope, deer, elk and moose are common in the Cypress Hills, while rodents, small mammals and predators as well as a high number of bird species are found in the area extending to the Frenchman River Valley.

Precontact Period

A few sites have been discovered in this area that date to about 11,000 years old, just after the glaciers had retreated. Since that time, people have been living here. People from 11,000 years ago would have hunted the last of the megafauna like the mammoths. As bison moved into the area as the environment changed, they became the preferred game.

The Stampede Site, on the Alberta side of Cypress Hills Interprovincial Park, has been inhabited for about 8,500 years. The site was near a water source that flooded the area periodically, covering up previous campsites.

The Napao and Niska Sites near Ponteix, Saskatchewan are two of the oldest undisturbed sites in the province, dating back to more than 7,000 years ago. They were campsites located near seasonal ponds, where the inhabitants had access to game, water and plant resources. Archaeologists determined the people made stone tools, cooked food and used a rock pigment for some type of art activity here.

Grasslands National Park can be included in this region. Here too there is evidence of early peoples living and using the land. Numerous tipi rings and stone tools have been found in this treeless landscape.

Contact Period

Several First Nations groups inhabited the area, and with the coming of the Europeans, trade routes were established. Chimney Coulee is one of the first fur trade posts in the area. It dates to 1871. Research also shows the area was a Métis winter campground in the mid 1800s.

The Cypress Hills Massacre occurred in 1873 between American wolf hunters, whiskey traders, Métis traders and Nakota peoples over a misunderstanding about a missing horse. Twenty-four people were killed and the fur trade post was burned. Fort Walsh was established as a result of this incident, bringing the Northwest Mounted Police into the region to provide policing for the First Nations, Métis and pioneers as the west opened up.

Parts of Fort Walsh and two trading posts have been excavated and reconstructed as part of Fort Walsh National Historic Site.

Another event of historic significance is when Chief Sitting Bull came to Canada along the Frenchman River after defeating General Custer at Little Bighorn in 1877. He went on to Wood Mountain to live in exile for several years before returning to the United States.

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4.11 The Moose Mountain Uplands (#10 green diamond on map)

Written by Talina Cyr-Steenkamp

Introduction

The Moose Mountain Uplands are found in the Aspen Parkland Ecoregion of the Prairies. If you live in or visit this Ecoregion you would see that the landscape is mainly broad plains. However there are deep, scenic valleys and hilly uplands in the area as well. The Moose Mountain Uplands are an example of this. While the majority of the Aspen Parkland is level at approximately 600 m above sea level (asl) the Uplands range from 600 m to 730 m asl. Moose Mountain, one of the highest hills in the Uplands, sits at approximately 800 m asl.

The ground in this Ecoregion is often covered by gravels and larger rocks. Have you ever noticed that many of Saskatchewan's lakes are pebbly or stony or have you ever seen stone piles on the edges of fields? Perhaps you have helped a farmer remove rocks from his or her field. All of these are just different sizes of stones (silt, clay, sand, gravel/pebbles, rocks, boulders, etc.) All of them could have been left in the ground by major events in history such as the movement of the glaciers or fast moving water (some of the lighter materials could also have been brought by wind). Much of Saskatchewan in covered in large rocks that the glaciers left behind.

There are many species of vegetation that make up the native prairie of the Aspen Parkland. As the name suggests, the most common tree is the trembling aspen. Other plant life includes shrubs like western snowberry, prairie rose, beaked hazelnut, saskatoon, and choke cherry. There are also several herbs (wild sarsaparilla, asters, pea vine, violet) and grasses (bluegrasses, sedges, rice grassed, etc.) that make up the undergrowth of the environment. In the Moose Mountain Uplands specifically, the environment is less cultivated that the rest of the Ecoregion, which means that there is more native prairie – ideal for animal grazing. The forests contain trembling aspen and balsam poplar and are more comparable to the environment of the Boreal Forest rather than the surrounding lower plains.

The high elevation of the Moose Mountain Uplands means that it has a unique variety of animals and plants than the rest of the Aspen Parkland. Typically found in the Aspen Parkland are white-tailed deer, snowshoe hare, white-tailed jack rabbit, eastern cottontail, coyote, red fox, skunk, weasel, bobcat, lynx, cougar, raccoon, black bear, beaver, muskrat, as well as many more species of rodents. Also found but in lower quantity are moose and mule deer. Mule deer and elk were much more common in the past but after European settlement, their numbers declined. There are 320 species of birds found in the Ecoregion, including sparrows, swallows, wrens, warblers, crows, robins, finches, great horned owls, red-tailed hawks. Most of these birds tend to migrate in the winter. Chickadees, woodpeckers, grouse, jays, magpies and some other bird species stay in the winter however. Forty-seven types of fish can be found in the area, including most often walleye, northern pike, yellow perch, and burbot. As well there are 11 species of reptiles and amphibians, which is very high for Saskatchewan. Because of the forested nature of the Moose Mountain Uplands, moose and elk can often be found as well as other species of birds and rodents that are not found in the rest of the Ecoregion.

Today, the region is used by humans most often as agricultural land, rangeland, urban development (towns and cities), potash and coal mining, fishing, and other forms of recreation. This area of the province would have been free of glaciers approximately 15,000 years ago. This does not mean that the environment was immediately welcoming for animals, humans, and plant life to live in. Most likely the environment would still have been very cold and covered by water (including Glacial Lake Regina). It is not until later that archaeologists have found the first evidence of humans living in the Moose Mountain Uplands.

Precontact Period

As mentioned, there is less cultivation in the Moose Mountain Uplands which means that many *in situ* (undisturbed, still in place) sites have been found that confirm this area has been used for many thousands of years. It is believed that the hills served significant purposes for early peoples, including navigation and ceremonial sites. People still use these uplands today for the same purposes.

An example of this is the Moose Mountain Medicine Wheel which is found on Moose Mountain. This is a sacred site believed to be approximately 2650 years old. Today, First Nations people continue to hold ceremonies at this and other sites in the area.

In addition to ceremonial and other sacred sites in this region, there are many early hunting and camping sites located along the waterways and other strategic locations in the Moose Mountain uplands. Due in great part to the topography of this region, the landscape has been left undisturbed by exploration and other forms of development. This has led to sites remaining intact. This could change in the future however, which is why it is important to ensure that these and other sites are documented and being protected.

Contact Period

There are not a lot of well-documented contact sites in the Moose Mountain Uplands. As no major waterways course through them fur trade posts were not established in them. The two known fur trade posts recorded from this area are called Moose Mountain I (1859) and Moose Mountain II (1860s/70s). Both of these posts were built by the Hudson's Bay Company. They were established near the Moose Mountain Creek which lies west and south of the uplands. There are many more fur trade posts identified in the Qu'Appelle Valley and further north. Does anyone have a suggestion as to why this region has less fur trade activity?

According to historical records, at least two explorers would have travelled in the vicinity of the Moose Mountain Uplands. The John Palliser (a Captain with the British military) expedition was held from 1857 to 1860 (do you know what "The Palliser Triangle" is?). His mission was to explore the land between the Assiniboine River and Rocky Mountains. Starting in the east, his group collected a variety of information on the environment including its geology, geography, and natural resources as well as astronomical and meteorological information. Between 1857 and 1859 he was near this region and may have had knowledge of the uplands. Two decades later (1880), John Macoun also went on an expedition in the region. It would be

interesting as a class assignment to read these expedition journals to learn about the possible contact these groups had in the uplands.

By the late 1880s, there was a strong North West Mounted Police (NWMP) presence throughout the province, including the Moose Mountain region. There were NWMP posts in Arcola, Carlyle, Cannington, Sunnymeade, Moosomin, and Fairmede to name a few in the region. The NWMP came to Saskatchewan in order to keep law and order. One of the NWMP patrol lines went between the Moose Mountain to Fort Ellice trail. This is also the era when Europeans began to homestead the region in great numbers. Many of these farmhouses and outbuildings can still be seen today.

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4.12 The Big Muddy Badlands (#11 green diamond on map)

Written by Ian Larsen

Introduction

The Big Muddy Badlands are a small area of south central Saskatchewan which pertains to the Big Muddy Valley and the surrounding uplands areas. Also included are the small tributary streams and valleys that flow into the Big Muddy, such as Roan Mare Coulee or Hole in the Wall Coulee to name a few. The Big Muddy Valley is part of the Missouri River drainage, which means that all the precipitation in the region will eventually flow south into the Missouri River in the United States.

The landforms in the Big Muddy Badlands are mostly formed by glacial activity. Glaciers covered the valley and surrounding area during the last ice age, as late as 17,000 BP. By approximately 16,500 BP, the glaciers had retreated far enough north so that the land became exposed. Since it was covered by ice, no humans could have settled in the area before 16,500 BP. The valley itself was not formed by the Big Muddy Creek that flows through it, but rather by glacial melt water. As the glaciers retreated, large amounts of melt water would flow southward, eroding the channel we see today. Due to the large quantity of water that was flowing, a very large U-shaped valley was formed. This gives the valley a large, fairly flat flood plain with fairly steep valley walls. You can see this wide valley cutting into the rolling Missouri Coteau on the map. Just look at for the wide gap in the land that connects the big lakes near the green 11 diamond. By 14,000 BP, the glaciers had retreated so much that melt water could no longer reach the valley. The Big Muddy Creek that remains in the area today is too small and too weak to carve such a large valley, so it is known as an underfit stream.

The area is called the Big Muddy Badlands because it is a very harsh environment to grow crops in. The summers in the area are usually very warm and fairly dry, and this limits how well plants can grow. Rain during the summer is usually in the form of brief thunderstorms. The soil conditions also resist crop growth. In some places, the soil is very thin, resting on hard bedrock, making it hard for roots to take hold. Much of soil in the area is also very tough because it contains high amounts of clay. The valley bottom tends to have more sand and silt than in the uplands, but is still clay heavy. Some soils in the badlands are also very salty and alkaline, which prevents all but the most resistant plants from growing there. Since the weather and the soils make it so hard to grow crops, most of the badlands are covered with natural prairie grasses, with some small trees and shrubs that grow near creeks. While very few farms are found in the area, the badlands are good for raising livestock on ranches. The grasses would also have been attractive food for bison and other herbivores in the area; an advantage that native hunters would frequently take advantage of.

Ground water also plays a key role in shaping the badlands' landscape. Due to the thick, clay-rich soils, water takes a long time to seep in and drain properly after a storm. As water percolates down, it slowly erodes some of the loose material and minerals. This leaves small voids and cracks underground, which will eventually join together to form soil pipes. These pipes will travel along hard layers of bedrock and will eventually open up on valley walls, creating caves and short term springs. Some of these caves can be as large as two metres wide,

and people can fit in them. Eventually the pipes will collapse from too much erosion, which can create or extend gullies in the valley side.

Precontact Period

Archaeologically, the badlands' environment creates a unique situation in southern Saskatchewan. Erosion and deposition in the valley is very slow, as the Big Muddy Creek is very weak, and groundwater takes a long time to build up. This means that the valley has been slow to change since glacial times, compared to other parts of Saskatchewan. Since deposition of sediments is very slow, many archaeological sites can be found very close to the surface. Sites are also not eroded away very easily, except near valley edges. Since farming is so challenging in the badlands, many sites are not disturbed by ploughing, which helps preserve their locations. Unfortunately, since sites are not quickly buried, materials such as bone decompose very quickly. However, artefacts made of stone survive fairly intact.

The valley itself makes a preferable environment for precontact living. The Missouri Coteau which surrounds the valley is wide open, warm, and fairly dry, making it a harsh place to live in. The alley on the other hand provides shelter and reliable food and water resources. This can be seen on the map, with several sites clustering in and around the valley, while relatively few sites can be found on the Coteau (compare the number of sites near the valley and those on the rolling plains to the north east). The wide open plains would be abundant with wildlife such as bison, which would be run off the steep valley edges as bison jumps. Bison jumps, such as the Sabin or Ironhorse jumps, litter the valley edges and many stone drive lines and represent camping areas used when travelling through the area or operating a bison jump. The valley supplies ample water from creeks and springs used for butchering animals and human consumption. Some archaeologists suggest that since the Coteau was such an inhospitable environment, the Big Muddy Valley would have served as a safe travel route for precontact groups moving north and south into and out of the United States.

Many ceremonial sites are also found in the Big Muddy region, mostly consisting of large boulder alignments. These include large stone circles, such as the Dick Giles Ceremonial Circle but also stone effigies. These effigies are groups of boulders placed together to make a shape resembling an animal or human. Three large effigies are found in the area, which include the Minton Turtle (near the town of Minton), the Big Beaver Buffalo (near the town of Big Beaver) an a human-shaped effigy on Wild Man's Butte. It is hard to say why these shapes were built, whether they served as recognizable landmarks on the landscape, or places of high spiritual and ritualistic importance.

Contact Period

The Big Muddy area was also used during historic times. As you can see on the map, the Big Muddy lies very close to the American border, and this lead to many interesting situations in the area between the two countries. In the late 1870s, a Sioux chief named Sitting Bull fled from the United States into Canada after battling the U.S. cavalry. He and his followers lived and hunted in southern Saskatchewan, including the Big Muddy, for a number of years. Sitting Bull

was eventually convinced to return to America in 1881. The large valleys and coulees were also a preferred location for bandits to camp in. In the early 1900s, several outlaw groups would steal horses from Montana and drive them north into Canada to hide them in the Big Muddy area. Some individuals would hide in the large groundwater caves mentioned earlier to camp or stow horses in. The trouble created by the outlaws lead to the establishment of an N.W.M.P. post in the Big Muddy in 1902. The region was opened for homesteading, and the first settlers started to arrive in 1909. The area would continue to be settled until the early 1930s.

Overall, the Big Muddy Badlands serve as a unique environment for archaeology in southern Saskatchewan. The local climate and landscape created an advantageous terrain for early hunters to live in. Since the United States border is so close to the Big Muddy, interesting interactions between early settlers and ranchers of the two countries were created. Unfortunately, much of this area is poorly known about and researched, even though it has such a rich history. It is hoped that future research in the area will broaden our understanding of the area, for both precontact and contact periods.

Recommended readings:

Information on prehistoric hunting and bison jump use on the Northern Plains:

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4.13 The Souris River Valley (#12 green diamond on map)

Written by Kris Sullivan

Introduction

The Souris River Valley region is located in the southeastern part of the province. The region is characterized as moist, mixed grassland, and is considered the most northern extension of open prairie grassland in North America. The soil in the area consists of unsorted boulders, gravel, sand, silt, and clay that were deposited during the retreat of the glacial ice about 9,000 years ago. This area is characterized as being close to the grasslands-parkland transition, meaning that it is an ecotone that straddles the two regions. Such areas were attractive for people because they could access resources from both areas. Common animals and birds seen in this area include mule and white-tail deer, red fox, jack rabbit, western meadowlark, and eastern kingbird. The dominant feature of the area is the Souris River, a narrow, long-winding river that cuts through the plains.

The cultural history of the region begins with the retreat of the glaciers about 9,000 years ago. The removal of the glaciers allowed for grasses and shrubs to grow, which in turn attracted various species of animals. It took a while for the area to become attractive to humans; clear, consistent evidence of human activity in the area does not appear until 5,000 years ago. It appears that bison was the primary prey for hunting activities right from these early stages, although there is evidence for the hunting of deer, marmots, and rabbits.

Early Precontact Period

There is not much evidence for human activity during the Early Period in the Souris River Valley region, which spans 11,500 – 8,000 years before present (BP). It is very likely that the people who first entered into the area came from the south as the glaciers retreated northward. The earliest cultural complex found in the area is Folsom, although these sites have all been surface finds; no buried sites have ever been excavated. Cody complex sites have also been discovered, but again they have been found in disturbed contexts.

Middle Precontact Period

The Middle Period (7,770 – 1850 BP) was a time of warmer temperatures on the plains. The Souris River area may have been more favourable for occupation than areas farther south, because the southern plains may have become too hot and dry and thus more hostile. Oxbow complex sites appear about 5,000 years ago. These are the earliest excavated sites in the Souris River region, and thus are the earliest sites that archaeologists are confident about. Archaeologists have found Oxbow-related campsites and even human burials. Oddly enough, archaeologists have yet to discover a kill site from the Oxbow period. Oxbow peoples continued to hunt bison, but also exploited elk, moose, fox, rabbit, geese, and clams. Long-distance trade seems to have developed during this time, as Oxbow sites in Saskatchewan have yielded native copper from the Great Lakes region and shell beads from the Atlantic coast.

Late Precontact Period

The Late Period (2,000 – 170 BP) witnessed the emergence of pottery and the use of the bow and arrow. Both Besant and Avonlea (two important culture complexes of the period) sites contain these. The pottery is hand-fashioned out of clay and often paddled into shape. The projectile points associated with Avonlea sites are much smaller than their predecessors because they were being used on smaller weapons (arrows instead of atlatl darts). Possible pit houses are located at certain sites. We also see the appearance of burial mounds in the region, although their numbers are not as numerous as those in Manitoba to the east.

Contact Period

The area was utilized during the Historic period by many Aboriginal groups, including the Mandan, Crow, Assiniboine, and Atsina (Gros Ventre). European presence was not felt much until around the 1870s. While the area was seldom used during the fur trade, it became a regular spot for Métis bison hunting as they provisioned nearby fur trade posts. Homesteading settlement first began in 1882. In 1887, the North-West Mounted Police established subposts at Alameda and Carlyle.

The Souris River Valley area has a long history of archaeological research, but the most intensive surveys were done in the 1950s by the National Museum of Canada, and in the 1980s as part of the mitigation program for the SaskPower Boundary Dam project. After mitigation, dams were built on the Souris River (the Rafferty Dam) and on Moose Mountain Creek (the Alameda Dam). When these dams went into operation, the waters flooded about 550 m above the level of the river. This flooding submerged hundreds of archaeological sites. Many of these were excavated before they were submerged. In general, we see a trend of tipi ring sites on the upper edges of valleys, and buried campsites along the wider valley floors. Key archaeological sites in the area include the Long Creek Site, an important site because of its many occupational layers. Excavations have shown this site to be occupied starting with Oxbow (5,000 BP), followed by McKean (4,500 BP), then Pelican Lake appears 3,000 BP and ends about 2,000 BP. Besant and Avonlea levels are also found here, characterized by check-stamped pottery and possible pit houses. The Oxbow Dam site has an early Oxbow component. The Avonlea type-site is also found in this region. A 'type site' is the archaeological site where a technology is first identified and its characteristics defined. The Avonlea Site is where Avonlea-style projectile points were first recovered and identified. The site, excavated in 1956 and again in 1984, revealed Avonlea points, stone knife blades, and pottery sherds. The pottery includes both net impressed and parallel grooved surfaces, and conoidal or bag-shaped forms. Another amazing archaeological site is the Roche Percée Petroglyph site. Not only are ancient carvings found here, but we can see ancient graffiti as well, as many early explorers and North-West Mounted Police officials carved their names into the surface of the rocks. An important historic site is the Shand town site. Set up around a coal-mining operation in 1908, the village developed into a collection of brick houses, including a general store and a post office. The village declined in the 1940s after the coal company shut down its operations in 1938.

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Chapter 5: Questions to Ask Students about the Map

1. What can you say about the distribution of archaeological sites (red dots) in Saskatchewan? Are there any distinct formations (ie. lines, clusters around lake or rivers, etc.)?
    - The map (orange circle #5) mentions that the distribution of sites across the south is associated with the TransCanada pipeline – meaning that the discovery of the sites is a product of survey methods and not necessarily where people were living.
    - The same concepts can be applied for the Souris River Valley due to the Oxbow Dam construction (as well as Lake Diefenbaker, Last Mountain Lake, and Nipawin) and to provincial parks (e.g. Moose Mountain, Churchill River, Wood Mountain, Cypress Hills).
    - See the remaining orange circles for some more explanations about the locations of archaeological sites.

2. With reference to #1, where are the denser and less dense areas? What are the reasons for this?
    - The areas without archaeological sites could be explained by lack of exploration, survey work, and development. There also could have been fewer people living in a particular area, thus leaving less evidence of their occupation. For example, the Athabasca region.

3. Regarding the archaeological cultures described on the reverse side of the map, what could be some possible explanations for new technologies, for example pottery and projectile point styles, appearing at certain times in Saskatchewan?
    - Also these cultural complexes do not solely exist within the borders of Saskatchewan, which is a recent political entity. These technologies are spread across the northern plains in various forms, crossing provincial and national boundary lines.

4. Why are there more rock art sites in northern Saskatchewan as opposed to southern Saskatchewan?
    - The Canadian Shield that is present in the northern regions of the province provides excellent surfaces to create pictographs or petroglyphs. There are very few outcrops of rock further south. One example is the St. Victor Petroglyph site (yellow square #21).

5. Continuing from #4, what other types of art or ceremonious features are present on the prairies?
    - Some of these are medicine wheels, stone circles and cairns, animal and human effigies, and large glacial erratics. Talk about where some of these are located.

6. Why might places like the Wadena Wetlands or Last Mountain Lake be important to aboriginal peoples?
    - These areas serve as the nesting grounds for thousands of migratory birds. Waterfowl would have made up a portion of peoples diets and the permanent source of water would also have attracted other game animals.

7. What are the advantages of living by the Opimihaw Creek (in Wanuskewin Heritage Park)? Do you know of other areas similar to this location?
    - The creek offers a source of water and is close to the river. The valley provides shelter in all kinds of weather. The steep slopes in some areas of the valley acted as buffalo jumps, while the more level areas at the bottom were ideal for processing and butchering meat, and for living areas.

8. Have you checked out your local museum for information on local archaeological and/or historical sites? They may even have collections of projectile points that people have donated.

Chapter 6: Activities

These activities are for teachers to use and get ideas for creating their own activities. Please use and/or copy any of these suggestions for your class. All of the activities outline the objectives, materials needed, specific vocabulary, and any relevant background information. The procedure includes step-by-step instructions on how to carry out the activity. Some activities have different versions suited for younger and older students.

A: Stratigraphy: The Levels of a Site

- Objectives: organize and classify data; read and display information graphically; understand the importance of identifying different layers of soil at an archaeological site; illustrate the law of superposition; discuss relative dating.

- Materials: Part 1 – a newspaper and flyers for each day of the week.
  Part 2 – **stratigraphy diagram**; large sheet of paper for each group, crayons or markers, **artefact sheets**, scissors, glue.

- Vocabulary: stratigraphy; strata; Law of Superposition; relative dating

- Background Information: Archaeologists have to keep record of everything they find while excavating and this includes soil levels that are exposed. Wall profiles are measured, drawn, and photographed to capture how soils and living surfaces were deposited over time. At the majority of archaeological sites, the uppermost level (or the soil at the surface) is representing the most recent time period and the layers at the bottom of the excavation are the oldest. Explain how a garbage can or laundry hamper filling up would produce similar layers (the oldest at the bottom and the most recent deposit at the top). Also discuss how people would deposit artefacts as they were living (storage areas, trash, different activity areas – butchering, beading, cooking, sleeping, etc.) Then talk about how layers of soil would cover up these various living surfaces- floods, fires, soil deposition. Teachers can choose to do one or both parts of this activity depending on the age of the students.

- Procedure Part 1: Begin this part of the activity at the beginning of the week (or several days in advance of completing part 2. Each morning bring in a newspaper and some flyers and deposit them on a pile on the floor. As the week progresses, the pile will slowly grow. Once the pile is complete, explain to the students how this stack of papers represents the layers of soil deposits at an archaeological site. Ask students what they can infer from the levels? Can the level be dated? How can they tell for sure how old something is?

- Procedure Part 2: Hand out the **stratigraphy diagram** and ask the students how many levels they can identify. What clues allowed them to come to this conclusion? (soil colours, types or amounts of artefacts). Put the students into groups and give each a large sheet of paper. Ask students to draw a profile (similar to the one in the stratigraphy diagram) with three levels and label each as: recent past, contact period, and precontact period. Hand out the **artefact sheets** and have the students cut out the artefacts and place them in the appropriate levels. They should discuss as a group what the artefacts are and why they think they belong in a particular level.

- Closure: Discuss as a class which artefacts were placed in each level and how they came to this conclusion.

- Other Options: Ask students what the profile would look like if someone dug a basement or a cellar. How would this then alter the levels of the soil? Explain how the Law of Superposition cannot be applied to the entire site. Come up with a list of other types of ground disturbance that might be present at an archaeological site (animal burrows, roots, pot hunters, etc.) What would these look like in the ground and how would an archaeologist recognize these as disturbance?

B: Rock Art Project

- Objectives: learn art techniques used by Precontact people; understand how pictographs are produced and their significance; understand that these artistic impressions left behind enable archaeologists to learn more about the people who made them.

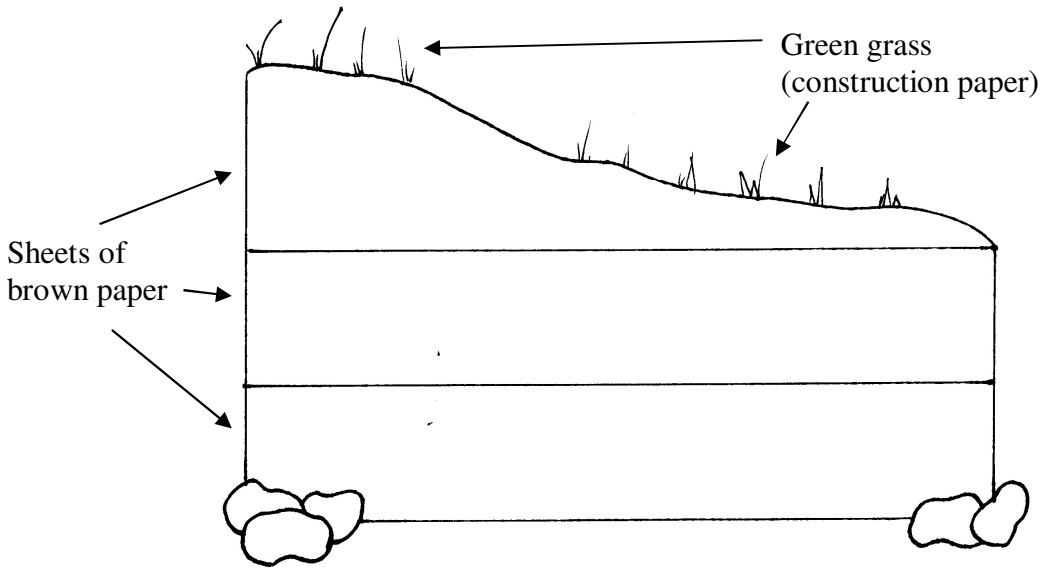
- Materials: *Version 1*: brown paper (large for a group activity or small pieces for individual paintings), duct tape/masking tape, green construction paper, liquid tempera paint (red, white, black) or chalk, drop cloths or news paper, paint brushes.

  Version 2: rocks, tempera paint (red, white, black), branches/twigs.

- Vocabulary: rock art; pictograph; petroglyph; symbol.

- Background Information: Precontact peoples created rock art throughout North America. Archaeologists record these sites with descriptions of the images, the colours used, and the locations on the rock. Some rock art sites have been linked to spiritual or religious beliefs, while others are depicted as a form of storytelling or oral tradition. Rock art in Saskatchewan is divided into two types: pictographs and petroglyphs. Pictographs are images that have been painted on the rock, using natural dyes to create paint. Petroglyphs are images that were created by pecking, rubbing, or incising on the rock. Examples of these sites can be seen along the Churchill River (eg. Churchill River Pictograph site) and in southern Saskatchewan (eg. St. Victor's Petroglyphs) (see Map for the locations of these sites). Show the students different rock art images from sites in Saskatchewan (many of these can be found online or refer to *The Aboriginal Rock Paintings of the Churchill River* by Tim Jones).

- Procedure: *Version* 1: Tape rolls/sheets of brown paper onto a wall or bulletin board (or even better, a moveable board). Be sure to overlap the paper so paint doesn't get onto the wall (see diagram below). Cut strips of green construction paper and add at the edge of the "rock wall" for grass. Large rocks can be placed at the bottom if desired (or create fake rocks with stuffed brown paper bags). Place drop cloths or newspaper on the floor to catch spills and drips. Make tempera paint. Have the students try to reproduce some of the rock art on the wall using paint brushes. Students can also paint images on their own sheet of paper at their desk – be sure to hang these up for everyone to see.



Version 2: Have each student collect a rock that they would like to paint on (this will make the experience of creating this type of art more personal and unique). The students also need to "find" a painting utensil, whether it is a twig (cut end to make a point or "brush") or piece of feathery grass. Mix tempera paint in the suggested colours. Have the students create an image on their rock.

- Closure: Have each student present their rock to the class explaining what their pictograph represents and any meanings associated with the image(s). Discuss why it is important to preserve rock art. What agents are contributing to the deterioration of rock art sites across Saskatchewan?

- Other Options: Students can also create their own paint/dye by using natural materials such as berries, clay, charcoal, etc. For example, you can mix red ochre/red chalk with eggs for a binding agent.

C: Trading Activity

- Objectives: *The year is 1790 and your trading party has a list of items that you need to trade your goods for.* This activity is used to teach students about the early fur trade in Saskatchewan. It introduces some of the different trading parties involved, the kinds of provisions each group had to offer, and the types of goods each group wanted to acquire. The activity requires students to use their communication skills, group work skills, and historical knowledge. Students will quickly learn how to barter and achieve a fair trade.

- Materials: construction paper (red, yellow, green, blue), white printer paper, glue, pictures or drawings of trade goods, trading checklists, laminating plastic and machine, dry-erase markers (4).

- Background Information: English and French fur trading companies were in direct contact with First Nations people in the mid 1700s. Beaver pelts were highly sought after by European countries to be made into men's hats. Furs of other animals were also valuable and were often made into coats and other types of clothing. The two largest, and very competitive, companies were the Hudson's Bay Company (HBC) and the North West Company (NWC). The HBC first established posts on Hudson's Bay and used the strategy of First Nations people bringing furs to these posts. French companies positioned themselves in Manitoba and then began to build posts along the Saskatchewan River (sites known as François-Finlay, Thorburn's House, and Grant and McLeod sites). This forced the HBC to move further inland, and as a result, Cumberland House was founded in 1774 on the Saskatchewan River. This rivalry ultimately ended in 1821 when the two companies merged under the HBC name. The HBC still survives today – you may know it better as The Bay. Hundreds of fur trade posts existed in Saskatchewan and many of these have undergone archaeological investigations. Some of these include, Fort Battleford, Fort Pelly, Fort Carlton, and Fort Pitt. These can be visited by the public, as some have interpretive signs and/or reconstructed buildings.

- Procedures: This game requires a bit of set-up in regards to the trade good cards and checklists. First, print or draw the trade items brought by each group. Then glue these onto coordinating coloured construction paper. Hudson's Bay Company=red, Métis=blue, First Nations=green, Northwest Company=yellow. You can even write the name of the item on the back of the card to avoid confusion during the game. These can then be laminated to help prolong the life of the game. Print off the checklists for each trading party and glue them onto the same coloured paper. These are to be laminated as well, so students can use the dry-erase markers to check off their supplies they get.

  Many of these trade items can be changed and the date, location, and types of groups involved in the trading can vary in order to make it more relevant to your students and lessons.

  Each trading group arrives with between 22 and 24 trade items. They also come to the other trading groups with 18 items that they need to end up with (checklist).

Divide the students into four even (or as even as possible) groups. Having one student per group is possible but four to five people is ideal. If there are not enough students to create four groups then the teachers/supervisors can be the fourth group.
Allow the students a few minutes to meet separately to look over the items that they have and the items that they need. This will give all groups equal opportunity to ask questions about what everything is before beginning the trade. The first group to end up with all of the items on their checklist wins!

Note #1: All of the items that a group arrives with are items that they are willing to trade. You can make the assumption at the beginning of the game that each group has their own substantial supply of the items they are bringing.

Note #2: Not every item is worth trading one other item for. For example, a rifle is a large item and the groups that start out with the rifles may barter for multiple items in exchange.

Note #3: You may wish to assign or allow each group to choose one person to be the Chief or Chief Factor of the group – therefore the one who makes the final decision. This is not a necessity, however. The students may find that this naturally occurs in their group and it will not always be the person who you may have assigned.

Note #4: All groups must reveal the items that they have available for trade (although, they can keep their checklists secret until the end if they choose). If they end up trading for items that they do not need for their checklist, they can trade these other groups' items as well (you can trade any colour of card in order to complete your checklist).

Note #5: Each group needs to end up with one "luxury item" that is not already in their trade goods that they are bringing to the meeting. A luxury item is anything that the group places value in but that isn't a necessity for their survival. Some of the provided "luxury items" are paper, a lantern, a clay pipe, beads, etc. As long as the group can justify why they consider a trade good a "luxury item" then it will count. If they are leaving with something that is essentially the same as they have arrived with it will not count.

Note #6: You may wish to provide small prizes to the first group to complete their checklist but this is optional.

- Closure: Discuss with your class some of the challenges they faced during this activity. Do you think people in the late 1700s would have faced the same challenges? What other challenges can they think of? Also talk about how these trading transactions may have changed over time as trading companies became more prevalent in Saskatchewan (southern and northern areas). How did this change the traditional lifeways of First Nations and Métis groups? How did the fur trade change the environment, specifically, animal populations (for example, beaver and bison)?

D: Pottery Making

- Objectives: To learn about the different archaeological time periods in Saskatchewan and the types of pottery associated with each, including the styles of vessels and various decorative elements. The students will also have the opportunity to create their own pottery vessels with clay and be able to replicate the types of decoration that aboriginal peoples used. They can even create their own decorative patterns. Students will also be able to better understand how people used materials from the earth to make cooking and storage vessels that they used in their everyday lives.

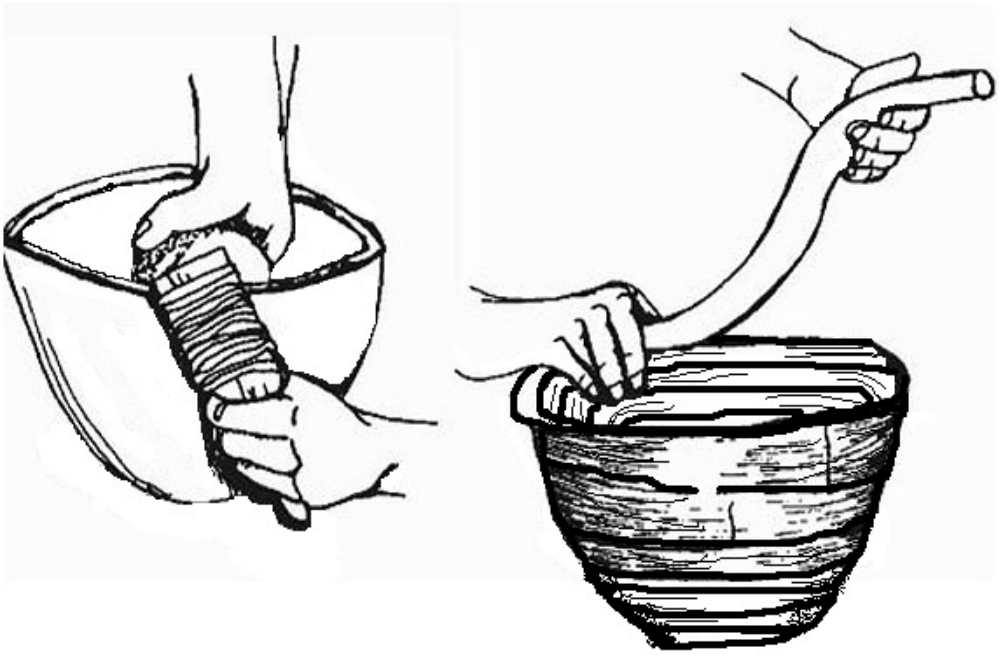
- Materials: clay (wet or dry) enough for every student to create a small vessel; materials for creating tools such as small sticks, cord (i.e. hemp), mesh/net bags (from oranges or onions), wooden paddles with incised patterns or cord-wrapped; clam shells.

- Vocabulary: pottery; incise; impress; punctate.

- Background Information: Some of the most imperishable archaeological materials are made of ceramics, otherwise known as pottery. The Northern Plains people had pottery beginning about 2,500 years ago. Pottery is seen as a development of people who are more sedentary. Most ceramic vessels found are broken and few vessels are found intact or complete. Pottery is analyzed by examining the manufacture, style, and shape. Pottery in Saskatchewan is made from clay found in nature that is moldable when moist and dries into a hardened form. After the vessel has been formed and decorated it is then fired and the vessel becomes rock-hard.

  Pottery vessels found in Saskatchewan are manufactured using two different methods: coiling and molding. The coiling method builds up the vessel from the bottom to the top in a series of long, connected coils of clay. The base may start out as one lump and then coils are added onto it in a series. Both the exterior and interior of the vessel are then worked to create smoother, more cohesive surfaces. Molding vessels involves taking clay and pressing it over a concave shape or into a convex shape. They are then paddled by holding a rock on the inside of the vessel and hitting the outer surface with a paddle. These types of vessels may also be created within a net or bag. See the diagram below.

  There are various surface decorations that are applied to the vessel before it is fired. Some of these include smoothing, paddling, incising, impressing, and punctates. Paddling refers to decoration using a paddle that may be incised or smooth and is dragged across the surface of the vessel. Incising is a type of decoration that involves the dragging of a sharp tool along the surface of the wet clay leaving an engraved design. Impressing is a decoration using a tool to press into wet clay leaving behind an impression or a series of impressions (for example a finger imprint). Finally, punctates are made by pressing the end of a (usually) round tool with a flat end, such as a stick, into wet clay leaving a round impression on one side and a protrusion on the opposite side. Some vessels also exhibit finger pinching along the rim.



- Procedures: Lead a discussion on the pottery found in Saskatchewan. Refer to Chapter 3 of this document or the SAPA map to become familiar with the various archaeological cultures that have pottery as part of their artefact assemblages (Besant, Avonlea, Old Woman's, Mortlach, Wascana-Ware, Laurel, River House, Blackduck, Narrows, and Selkirk). Show the students the different types of pottery vessels found in Saskatchewan. Also talk about the different methods of manufacturing and the different types of decorations and how they are applied.

  Give each student a small piece of clay to shape into a vessel. This may be an exercise in replicating a type of pottery found in Saskatchewan or it could be an activity where the students create their own style of pottery with personalized decorations using traditional tools.

- Closure: Display the finished pots. Discuss with the class the similarities and differences of the vessels created by their fellow classmates. Even though there was a limitation in the types of tools used to create the decorations, there are still many variations and patterns evident. Ask the students why these utilitarian pots were enhanced with decorations. Ask students to list things from their homes that are utilitarian in nature, but are still decorated to reflect personal style or interests (e.g. dishes, bed sheets, shoes, etc.)

- Other Options: Note to teacher – traditional pottery has temper added to the clay. Temper can be anything from sand to crushed up shells. This was added to the clay so that it could withstand the firing process. Firing is the final stage in pottery production and is a more advanced activity requiring some knowledge and expertise.

E: Ceramic Challenge

- Objectives: This activity can be done in combination with or as an alternative to activity D: Pottery Making. As an alternative activity, it may work better with younger classes, but can still be done with all ages. It will also take less time and require less preparation.

  This activity is used to illustrate how archaeologists analyze pottery and ceramic fragments – looking closely at the type of manufacture, style of vessel, material type, visible decorations, etc. Students will be analyzing, hypothesizing, working in groups, and problem solving.

- Materials: Various ceramic dishes – plates, mugs, tea cups, saucers, bowls, tea pots, casseroles, lids – check out local garage sales or ask around if people have old dishes they want to get rid of. These are to be broken up ahead of time and divided into assorted bundles. You can use tin foil pans or something similar to present the assorted fragments to each group. There is to be some variety amongst the fragments so that each group is exposed to the various styles of vessels. **Caution: some pieces may be sharp so consider everyone's safety before attempting this activity.**

- Vocabulary: reconstruction; pattern; vessel type; decoration.

- Background Information: Archaeologists attempt to reconstruct pottery and ceramic vessels once they are back in the lab. By looking at the different characteristics of each fragment they can determine which fragments are from the same vessel. They also try to figure out what type of vessel it is (for example, plate, bowl, cup, pot), what portion of the vessel is represented by the fragment (such as rim, neck, side, base, handle, knob), and the type of decoration (including incised, cord impressed, painted, glazed). If it is a more modern ceramic piece, there may even be a maker's mark present, usually on the base. A maker's mark is like a brand name stamp indicating where and by whom it was manufactured. The archaeologist will also try to fit the pieces back together to get a clearer picture of what the vessel initially looked like before it was broken.

- Procedures: Have the ceramic vessels broken up before hand and divided into various groups, depending on how many students you have. Groups of five should work fine. Give each group an assortment of ceramic fragments and give them some time to examine the collection.

  Ask the students to group the ceramic fragments in a way that seems logical to them. Ask them what their reasons were for dividing the collection this way. Can they make any other observations about the fragments? Can any of them be fit back together? If they don't fit back together, do any of them belong to the same vessel? How do they know this?

- Closure: Groups may want to share their fragments with other groups to see if they can reconstruct their vessels. Ask them what other problems archaeologists may encounter with reconstructing pottery and ceramic vessels. Ask them why it is that archaeologists rarely find complete vessels and why they are almost always broken in Saskatchewan

(How much of the site (and therefore vessel) was excavated? Were all of the pieces discarded in the same place? Does the freezing and thawing of the ground affect the vessels? etc.)

- Other Options: If you don't have ceramic dishes to break up, have each student draw and decorate a vessel on a piece of paper. Then cut up the drawings into pieces and divide these amongst the groups of students.

F: Learning About Language

- Objectives: This activity will develop skills for historical analysis, specifically interpreting primary and secondary source documents to understand historic events. Students will also have to make connections between the past and the present. They will interpret ideas and events from different historical perspectives.

- Materials: **What Do You Mean – Language Activity** sheet with teacher's answer guide on page 2.

- Vocabulary: lexicon; primary and secondary sources.

- Background Information: Archaeologists read what people have written in the past to help them understand historical events and the remains at archaeological sites. This activity presents the students with a list of words that were used in the journals from South Branch House, a Hudson's Bay Company trading post located on the South Saskatchewan River just west of the present community of St. Louis. The post operated from 1786-1794, at which point it was attacked and reportedly burned to the ground. The journals detailed the day-to-day activities of the post employees, including hunting and trapping, gathering wood, travelling along the river, constructing various buildings and stockade walls, dealing with the sometimes severe weather conditions. South Branch House employed people such as David Thompson, Peter Fidler, William Walker, and Mitchell Omen.

- Procedures: Discuss with your students the history of South Branch House and why it is important for archaeologists to consult primary sources, such as journals, when conducting research on a site.

  Give each student a copy of the **What Do You Mean – Language Activity** sheet and ask them to provide definitions for the words/phrases. This may be done individually or in small groups. They are also asked to take three of these words/phrases and write a sentence for each one. As part of a class discussion, have the students present and share their definitions.

  Go through each of the words/phrases and give the actual definition. Have some students read the sentences that have changed the most and then try to make sentences that use the words correctly.

- Closure: Discuss how this would affect the understanding of a historic document? Have your class brainstorm a list of other words that have changed meaning over time or new words that have recently become a part of the English language (example – Internet). Why do they think their meanings have changed?

- Other Options: Ask your students to talk with older family members or other people they know about words that can mean different things to different people. Have them bring these words back to class and share them with the rest of the students.

G: Archaeology Lab Activity

- Objectives: This activity will provide an introduction to laboratory methods used by archaeologists when they are analyzing artefacts. They will learn about what kinds of information are recorded including, measurements, weights, and illustrations.

- Materials: Objects used for analysis – these could be real artefacts or items from around the home. If the items are modern artefacts they can be broken up to represent the state that most artefacts are found in. These can be things like: dishes, cutlery, toys, nails, tools, articles of clothing or accessories, coins, etc. Students will also need a **Laboratory Record Form**, ruler, balance scale, pencil, eraser, pencil crayons (if desired for artefact illustration, but regular pencils are just fine).

- Vocabulary: artefact

- Background Information: Every artefact collected at an archaeological site is brought back to a laboratory where it is further analyzed. This process involves recording specific information about each object that is entered into the catalogue. This information is also included on a card that is placed in the bag along with the artefact. Detailed record keeping is important for organizing the many artefacts collected from sites and for allowing archaeologists in the future to look back and see what had been found.

- Procedures: This activity can be done in small groups. Every group will have an artefact to process. Each student is given a **Laboratory Record Form** and as a group they are to record the information that is asked of them on the form. The students are to use rulers to make measurements and a scale (if available) for weighing. To draw the artefact, the student can place the object on the paper and trace the outline or just draw it free-hand. Any details and shading can then be added. **For older students, have them create a scale bar in the drawing area and explain that this is important for interpreting the size of the object if it is larger than the given area.

- Closure: This can be done with several artefacts or just the one. The teacher can also explain that all of this information would be compiled into a computer database. Photographs can also be taken of the artefacts and stored electronically. Ask the students if they can think of any other information that might be important to collect or add to a database – there are many possibilities, including things like words or other markings visible, manufacturer and date of manufacturing, where it was found at the archaeological site (unit number, level), the year it was found, who found it, who catalogued it, and the name of the archaeological site.

- Other Options: Students can make a database for their artefacts or the entire class can compile all of their information for a database.

H: Can You Think Like an Archaeologist?

- Objectives: Students will be using observational skills, deductive and analytical reasoning, and estimation. This is designed as a group activity and therefore there will be cooperative and hands-on learning. Students will be introduced to the concept of material culture and gain skills in artefact analysis.

- Materials: A large collection of store receipts – at least one per person. Each team recorder will receive a copy of the **Receipt Analyzing Form**. Or, you can use the examples of receipts, **Store Receipts**, and make a copy for each team.

- Vocabulary: material culture; artefact; assemblage

- Background Information: To date, archaeologists in Saskatchewan have found and processed millions of artefacts. Each artefact needs to be identified in order for archaeologists to understand what it is and how it was used. The artefacts tell archaeologists about the people who once lived in Saskatchewan and they also provide clues about different cultural groups. The artefacts made and used by a cultural group, or a specific group of people, make up their material culture. These groups of artefacts are also referred to as an assemblage. The information obtained from an artefact assemblage is stored on a computer database so that it can be further analyzed.

  These are some of the questions that archaeologists consider when they are analyzing artefacts:

  1. Who would have used this (made this)?
  2. What is this object? What was it meant to be?
  3. When was this made? When was it left here?
  4. Where is this artefact from? Where has it been?
  5. Why is this important? Why was it thrown away?
  6. What do we understand about the people who have used this?

- Procedures: Introduce the lesson by explaining what an artefact assemblage is and how archaeologists use the artefacts to learn about groups of people and their culture. Archaeologists use lists of artefacts and databases to help organize their data and make it accessible to many different people.

  Use the following example of a type of artefact that can tell us about actions and ideas. Also explain that where an artefact is found can affect the interpretation of the object. Think of other types of artefacts that can be used as well to explain this concept (you could also use artefact types such as clothing or dishes).

  Candles (type of artefact) bring some different types of candles from home.

  - *Utilitarian* – these types of candles can be used in times of power outages, camping, bug repellent.
  - *Emotional* – these are used for candle lit dinners and decoration in your home. They are likely to be more decorative than the utilitarian candles and may even be scented.
  - *Celebration* – these include birthday and other holiday candles.

- *Ceremonial* – these are used for prayers, in churches and other religious buildings or sacred gatherings for different ceremonies.

To continue on with the activity, divide students up into groups (4-5 people). Give each group a pile of receipts, or the **Store Receipts**, and a **Receipt Analyzing Form**. Think of the receipts as artefact assemblage lists. Each one will give a place and a time as well as other important information. These kinds of data can be used later to create maps, charts, and graphs to visually display the information obtained from analysis. Have your students fill out the forms in groups and then discuss their answers in a group discussion. Note: can the student's identify anything that would not have been a necessity (an impulse buy or "luxury item"?)

- Closure: Discuss with your class any patterns that they noticed and any other observations they made. Ask the students how our everyday choices and actions are reflected in the objects we purchase. Who else in our lives can tell a lot about us from our artefacts? Suggest: people working at the post office (bills, letters, magazines), grocery store clerks, photo technicians who develop your film, people who visit your yard sale, video store clerks, librarians.

Have your students think about the current contents of their desks and backpacks. What might this reflect about them as an individual? How are they similar or different to other students in the classroom? For example, did someone bring their music books with them to school for their piano lesson or does someone have a comic book with them for reading?

- Other Options: As suggested in the procedures, have the students compile their data onto a computer spreadsheet. Use all of this information to create charts indicating where items were bought at which stores, or how much money was spent at each store. You could also use a map of your community and label different shopping areas as to how often they are visited, etc. Get the students to come up with ways/forms in which they think the data is best represented, i.e. graphs, charts.

I: Mapping an Archaeological Site and Surface Survey

- Objectives: As students apply a grid to an archaeological site they will be using a map and the Cartesian coordinate system. They will also be determining the location and number of artefacts within each unit. Students will be asked to make hypotheses concerning the distribution of these artefacts found at the site. There are two versions of this activity – version 1 is for younger students and version 2 may be more suited to older students or a smaller class where there is more help from a teacher.

- Materials:

  Version 1: Ruler, pencil, eraser, a copy of the **Popsicle Site Artefact Scatter**, and a copy of the **Popsicle Site Artefact Location Record**.

  Version 2: Large nails or tent pegs to create a grid, string to complete the grid, copies of the Site Map for each group, copies of the **Artefact Record Form** for each group, graph and note paper for each group.

- Vocabulary: datum point; flake; tipi ring; grid unit, feature, artefact.

- Background Information: Once a site has been excavated, it has essentially been destroyed and is gone forever. As archaeologists are excavating, they make sure to take detailed notes and measurements of everything they find at the site. One of the things they record is the location of the artefacts found. To do this, a grid system is used to divide the site into equal portions, usually 1 x 1 metre squares. The position, or corner, at which this grid starts, is referred to as the datum point, a measuring point for the entire site. Each square is then assigned its own number depending on how many metres north and how many metres east it is in reference to the datum point. Each artefact found within a particular square unit is recorded as being from that unit. Once the archaeologist returns to the laboratory he or she can make interpretations based on the location of the artefacts about human activity and events in the past.

- Procedures:

  Version 1: Have your students each become an archaeologist who has just finished excavating at a site. During the excavation there were a number of artefacts found and they need to record for future research.

  Ask your students how they think an archaeologist would accurately record artefacts that they found in the field?

  Have your students work on the **Popsicle Site Artefact Scatter**. As a class discussion, help your students locate the datum point and explain to them the importance of this. Also point out the north arrow and the map key. Have the students create a grid over the entire site – the site should measure 8 metres north and 6 metres east. Each square will represent a 1 m x 1 m unit. You can even create a scale bar to indicate this measurement relationship. Label each unit square according to how many metres north and how many metres east. For example, a square could be 5 m north and 4 metres east of the datum point and you would write it as 5N4E. Then have your students fill out the

Popsicle Site Artefact Location Record, marking down how many artefacts of each type are located within each unit. *There are answer sheets for both of these documents.*

Version 2: Beforehand, teachers need to set up the "site" somewhere on the school grounds. The size of your site will probably depend on how many students you have and how much time you would like to spend on this activity. Choose a location where there is usually foot traffic or another activity that occurs on a regular basis. Layout a grid of 1 m x 1 m squares using the pegs to mark the corners. The area can include foot paths, vegetation, garbage cans, and benches. Indicate the location of the datum point. Take a look at the procedures for version 1 to get an idea about making a site map, the datum point, and numbering units.

Divide students into groups of two or three. Have the students conduct their surface survey by drawing a site map on graph paper that includes: the grid, unit numbers, datum point, north arrow, key, any features (man-made objects that cannot be moved, i.e. park bench or pathway), and vegetation. As the students examine each unit, have them record any surface artefacts they find. Do not remove them from the site, but simply record their location on the site map and issue each artefact a number (place a dot on the map and its corresponding number). Then record the specifics about the artefact on the **Artefact Record Form**.

Back in the classroom, the groups are then to write a report on their findings. The final report should include the following sections: (See the **Avocational Archaeologist Permit Report** as an example of the type of information that non-professional archaeologists in Saskatchewan have to include in their report. This is government regulation).

Introduction - a few sentences briefly describing the location of the site, its name, and what was found (features and artefacts).

Methods - a paragraph that mentions how many square metres were surveyed, how each artefact was located, recorded, and mapped. None of the artefacts were collected.

Results - describe the units and what types of features and vegetation were mapped. Discuss the artefacts (how many, what they were, and describe each).

Interpretation - artefacts they found and the features that were recorded. Why would these artefacts still be here? Could there have been different artefacts here at one time? And why are they not seen anymore?

Conclusions - list any conclusions and provide a short summary of their report.

- Closure:

Version 1: Ask the students how they would account for the distribution of the different types of artefacts? For example, what could they infer from the location of the flakes across the site – what might this indicate about human activity? What do the circles of stones represent? What are the charcoal deposits? Now ask your students to explain the importance of establishing a grid at an archaeological site. Ask them what would happen if some of the artefacts were missing. Would they have come to the same

conclusions? Then ask the students what would happen if they were excavating at a real archaeological site and some of the artefacts had been stolen. How would this affect an archaeologist's interpretation of the site? Explain that it is important to help protect archaeological and historic sites to prevent things from being damaged or stolen. Vandalism and pot hunting can destroy the archaeological record. These acts will limit and alter our understanding of how people lived in the past.

Version 2: Discuss with students the types of artefacts they found at the site. Ask them what would happen if some of the artefacts were missing. Would they have come to the same conclusions? Then ask the students what would happen if they were excavating at a real archaeological site and some of the artefacts had been stolen. How would this affect an archaeologist's interpretation of the site? Explain that it is important to help protect archaeological and historic sites to prevent things from being damaged or stolen. Vandalism and pot hunting can destroy the archaeological record. These acts will limit and alter our understanding of how people lived in the past.

- Other Options: *Version 2*: You can also have the students input their information into a computer database. They may want to include charts or graphs in their report.

J: What Are These Tools Used For?

- Objectives: Students will examine different types of artefacts and form hypotheses as to what the tools may have been used for based on the shape and material.

- Materials: Actual Precontact artefacts or pictures of Precontact artefacts (see **Artefact Tools** document for several photographs), drawing paper, pencils, pencil crayons, and modern tools that serve the same functions as the Precontact tools.

- Vocabulary: artefact, function

- Background Information: Before the arrival of Europeans to the area of Saskatchewan, First Nations people utilized things from nature to create all of the tools they needed to perform everyday activities. Some of the materials that they sought to manufacture tools included stone, bone, hides/leather, wood, and shells. These raw materials were then shaped and modified into projectile points, knives, hoes, hide scrapers, hammers, net weights, and other items.

- Procedures: Begin by presenting to your class the images of Precontact tools and point out the different types of material used to make each artefact. Then ask each student to choose an artefact and draw it. They may want to use pencil crayons as well.

  Have the students write down what they think the tool was used for. Remind them to consider characteristics such as material, shape, how it was modified, etc. Then, from the collection of modern tools, have them choose a tool that serves the same purpose as the artefact they have drawn.

- Closure: As a group discussion, talk about the similarities and differences between the artefacts and the modern objects. What kinds of things have been replaced or modified?

- Other Options: Once the students understand what the tools were used for and what modern tool serves the same purpose, get your students to draw or paint a picture of someone using the artefact in a traditional manner.

K: Music History Seriation Activity

- Objectives: Version 1 is intended for younger students and version 2 requires more independent research, and therefore, would be better suited for older students.

- Materials: Enough copies of the **Music Chronology Activity** sheet (which includes **Music Chronology Information** sheet) for each student.

- Vocabulary: seriation

- Background Information: Sometimes archaeologists are not able to date a site without doing more invasive testing, such as Carbon-14 dating, but they are able to relatively date it based on the shape, form, and manufacture of artefacts. Archaeologists are also able to track how the 'form' changes over time. The site may then be compared to other sites that produced similar 'forms' of the artefacts. This method of dating, referred to as seriation, allows archaeologists to chronologically order artefacts based on the idea that the popularity of an object will peak at a specific time and then change. Just like how fashion changes, becomes popular, and then becomes less popular, so did the use of artefacts. Sometimes this change happens quickly, while at other times it is a more gradual process.

- Procedures: Discuss with the students the method of using seriation in archaeology.

  Version 1: Students can read the **Music Chronology Information** sheet and learn about the different form of music media. Teachers can also go through this sheet with the students and explain from their own experience when they remember using the different forms of media. Once the students are familiar with the information, have them cut out the images from the **Music Chronology Activity** and glue them onto the music timeline according to when they were most popular.

  Version 2: Give students the names of the different types of music media listed on the **Music Chronology Information** sheet and ask them to research the pertinent information that will allow them to complete the music timeline. The images should be placed on the timeline when each form of media was at its peak in popularity.

- Closure: Ask the students how to explain why these changes occur over time. What other types of artefacts would be able to be analyzed in this manner? Talk to the students about how artefact types such as projectile points or ceramic patterns change over time.

- Other Options: You may also want your students to hand in their research as well in the form of a small report or essay.

L: The Life of an Artefact: A Story

- Objectives: This writing activity encourages students to think about how an object was used in everyday life before it became an artefact in a museum. Students will have to write a descriptive story about an artefact.

- Materials: Notebooks and pencils for each student.

- Vocabulary: artefact

- Background Information: Archaeologists have to describe the characteristics of each artefact they find: shape, colour, materials, size, decoration, etc. They use these descriptions as part of their report. Archaeologists will also make inferences as to what they think the object was used for, who may have used it, when it was used, and where it came from. This activity will also involve a field trip to the local museum where students can learn about their community's history. The activity can be either part of an archaeology unit, demonstrating how archaeologists observe and analyze artefacts, or it could be part of unit about other cultures and time periods.

- Procedures: Book a time for your class to visit the local museum. Each student should bring with them a notebook and a writing utensil. As your class tours the museum, have each student choose an artefact that they would like to write about. This should be an object that they choose on their own for their own personal reasons. When the tour is finished, have the class sit down and first write a description of their artefact with as much detail as possible and a few sentences as to why they chose the particular object. Then, back in the classroom, your students can write a short story about how their object was used in real life. This story can be as lengthy as the teacher desires and it can incorporate components that they are currently covering in language arts or social studies.

- Closure: Students can share their descriptions and stories with the class. When students are reading their descriptions, have the other students try and guess the type of artefact.

- Other Options: Older students may be required to have additional elements such as dialogue in their stories.

M: Other Games and Activities

- See the Hand Outs and Teaching Documents folder for word search, crossword puzzle, matching activities, etc.

Appendix A: Guidelines to Visiting Archaeological Sites in Saskatchewan

Prepared by the Saskatchewan Archaeological Society
Prepared September 1998
Updated December 2009

Preamble

With the growing incidence of tourist and other visitation to natural and historical sites in Saskatchewan as part of the growing industry of ecotourism, archaeological sites, being part of the land, are becoming of increasing interest to tour operators, tourists and other visitors.

Depending on land ownership, federal and provincial laws and regulations address the management and "use" of archaeological sites and artefacts, just as other laws and regulations govern all citizens' use of other resources. However, just as poaching of game animals or picking Western Red Lilies happens despite the law, artefacts may be removed or sites or features destroyed by those who either do not know the laws, or refuse to abide by them.

Since it is neither feasible nor desirable to monitor each person's behaviour and actions when out on the land, the SAS believes that the main technique for achieving conservation of archaeological sites, artefacts and landscapes out on the land of our vast province is education, both general and targeted. We feel that better public knowledge of the rich, 12,000 year old human heritage of the province, including the nature of the resources, their fragility, and the information that can be derived from further study, will in itself dispose people to treasure the heritage and perhaps encourage them to take actions to protect those resources, or at least avoid harming them.

The Society believes, too, that professional tour operators and others involved in ecotourism and cultural tourism (whether tourism professionals or not, such as teachers), once made aware of the often-fragile nature of these resources, will be better able to act as informed stewards/guides and prevent damage that might otherwise be caused by their clients.

This background paper and proposed guidelines has been prepared as our contribution to the work of the Ecotourism Task Force, to help meet our organization's commitment to protect, conserve and properly use the heritage we have been fortunate to inherit from past Saskatchewan peoples. We do not presume to speak for any community, and are pleased that the Task Force has already consulted with First Nations elders an as important first step in working to protect and enhance these resources.

The Nature of Saskatchewan Archaeological Resources

While Saskatchewan does not possess huge monuments left behind by vanished cultures, there are still numerous, fascinating archaeological resources and places that may be enjoyed and responsibly used.

For the most part, the archaeological resources suitable for tourism use are found on the surface of our land, as described below. As for buried remains, one rule is clear, as embodied in the Saskatchewan *Heritage Property Act*: no one may dig, or search, for archaeological remains without a permit from the Minister in charge of archaeological heritage. Such a permit is issued only to qualified archaeologists, and its issuance involves stringent reporting requirements. The first rule for visiting sites is, therefore, that "**No one is to dig, scratch, pry or otherwise probe beneath the rocks or soil in any manner to look for archaeological artefacts."**

We do possess a rich legacy of archaeological resources (sites, artefacts, and features) spread across the surface of the land of Saskatchewan, which, unlike the buried ones, can be quite visible to the trained eye and accessible to archaeologists and non-archaeologists alike. While what lies below us is as yet unknown, there are many archaeological sites, features and artefacts on the land's surface which are undiscovered, and many which have been "discovered" but are unrecorded. The process of documenting these surface phenomena is every bit as important as careful scientific excavation of buried archaeological components. Every year amateur and professional archaeologists and others find "new" sites, and our knowledge and site inventory grow apace.

<u>The North</u>

In the north there are three main kinds of surface features which reveal past human activity: the **rock paintings** found on bedrock outcrop surfaces of the Canadian Shield, stone tool-making remains, usually of quartz, left by Aboriginal flintknappers on outcrop camp sites and on portages, and abandoned exploration and **mining operations** and settlements from more recent history.

The mining equipment, burnt-out head frame and mill, assay office, and tailings pond of the late 1930s - early 1940s Box Mine and ruined houses of the associated town of Goldfields on Lake Athabasca form one of the north's largest industrial archaeology sites, but the workings and equipment of many smaller mining operations exist. In addition, many of the well-travelled **portages** we use today were trails used by people for thousands of years; if there is a lot of foot traffic a portage will retain an appearance similar to that of generations ago.

Rarely, sizeable **quarry sites** used by precontact stone workers may be found, but most often we find scatters of chips and flakes, remains of their workings, at camp or portage sites.

The activities of the **fur trade** era (1740s to 1870s) have left few standing remains aside from piles of fireplace rubble at a small number of sites in both the north and the south; the existence of the posts and forts is now no more obvious than that of thousands of much earlier, buried precontact sites.

The South

The lands of the southern half of the province, having less dense vegetation, permit us to see surface features somewhat more readily than in the forested north.

The Homestead and Modern Periods:

Even though the process of immigration of non-Aboriginal peoples and rapid and massive alienation of land to non-Aboriginal ownership is scarcely a century old, two things have happened to the material culture of the homestead and later periods. First, many early **settlement developments** such as homes, out buildings, and land breaking are now invisible to the untrained eye. Second, many still-standing early buildings and other architectural structures like bridges are in various states of disrepair or abandonment, advancing toward a state where they are of more interest to the archaeologist than the architect or historian!

The south contains more **industrial sites** than the north. These mainly relate to coal mining (e.g. the abandoned mine building at Pinto) and clay extraction and brick manufacture (most notably the Claybank brick works, now being preserved and developed as a National Historic Site).

Precontact Period:

There exists a wide variety of surface features created by the province's first peoples, which can be summarized only briefly here. Classic, bedrock-based **stone quarries** for stone tool making are few and far between in the glaciated landscape of the south, but there were a small number of localities where suitable stone was concentrated and which were used by First Nations people. These include rich cobble deposits of a siliceous rock called Swan River Chert along the Armit River and possibly other places, and some of the fused shale beds near Estevan. One red and yellow ochre deposit near Lucky Lake may have been used for pigment.

Even today, across the agricultural part of Saskatchewan, acknowledged to be one of the world's most altered landscapes, we can still find numerous examples of what may be collectively termed **stone configurations**. These can be found today, of course, only on unplowed lands. These encompass sites of both known or probable function or purpose, and others which are as yet little understood or unknown. Thousands of **stone circles** of tipi size either large or small, conforming to tipi cover sizes that could be transported either by horses or dogs at different periods, undoubtedly represent ancient camps. These so-called tipi rings may occur singly, or in the tens or hundreds, and probably are the remains of camps. Some **rock cairns** probably cover human burials, but many do not; they could have been used as caches, markers, or even monuments to individuals or events.

The more spectacular **medicine wheels** and **boulder effigies** would seem to be more connected to the spiritual and ceremonial aspects of life. Some dating of such sites has been done, indicating construction at least 2000 years ago. There are probably at least 18 of each of these site types remaining in the province. Theories abound on their functions and significance. Some of the medicine wheels and associated stone features in particular appear to possess

alignments related to astronomical phenomena such as the summer solstice sunrise, but most do not.

Some **stone-lined** or -edged **pits** could have been used as lookout spots for warrior scouts, or as entrenchments during battle, or even as eagle-trapping pits or vision-questing structures where boys or young men would seek visions and spiritual guidance. All these functions are plausible and based on historic and ethnographic facts; one problem of interpretation is the lack of excavation information. As well, sites used for very different original purposes may nevertheless share a similarity in appearance. These sites fall within the category of Sites of Special Nature (SSN) and SSNs are not excavated under provincial policy. Other SSNs include burials, medicine wheels, effigies, rock art, etc.

Drive lanes or lines – long lines of stones used to direct bison into traps or over jumps – are of more certain identification, especially since they are inevitably associated with known **kill sites** or topographic features suitable for this use.

The position and arrangement of features is probably more important than has been recognized or recorded heretofore by archaeologists. For example, boulder effigies or medicine wheels are often observed to have other stone features nearby, such as stone circles or cairns. More research on the associational characteristics of such large sites will have to include investigation for other sites and features within a wider radius of single features. The usual situation of high prominence of medicine wheels in relation to the surrounding terrain may well mean that the central feature is but one of a number that together give that feature its true context and meaning.

Rock carvings were made both on bedrock surfaces such as at Pinto, Churchill River, Roche Percée and St. Victor, and on individual glacial erratic boulders, such as at Herschel. Some 20 or more such features once dotted the south. Today a few are still in place, others are in museums, and others have been destroyed or lost. These carvings include abstract or unrecognizable figures, human faces, feet and hands, bison and other animals, and, at Swift Current Creek and St. Victor, numerous animal tracks, especially bison.

Earthen excavations still exist from the Battle of Batoche in 1885, when Metis defenders of the village dug rifle pits. Similar rifle pits from the same year, dug by Big Bear's warriors, may be seen at Frenchman's Butte. One very unusual site is a circular feature comprised of 13 pits dug into earth on Stranraer Hill. This may be a vision-questing spot or something entirely different. **Trails** – the remains of wagon wheel passage and animal and human foot traffic – may be seen on numerous pasture lands. How many of these trails predate the 1870s is uncertain, but it is likely that most do not.

Aside from these tangible, physical remains that may be seen and touched, the oral traditions of the Aboriginal cultures reveal a far richer cultural landscape aspect to the surface of the province. Many places in the north and the south, especially unusual topographic features, have myths and stories associated with them. Some of these, such as a sliding hill near the Battlefords, are associated with the actions and exploits of *Wisakicak,* the Cree culture hero/trickster. A cave near La Ronge is said to be one of the places where the *Memekwesiwak*

(loosely translated as the "little people") gave medicine in the old days to the People. Many of the largest glacial erratics were regarded as very special. The best known of these was a (now destroyed) 400-ton granitic boulder near Elbow (*Mōstos Awasis Asini* "Buffalo Child Stone"*)*, which was associated with a legend giving its origin as a bison dropped by a giant bird. Archaeological sites are associated with many of the large rocks, indicating long cultural use of these features.

Proposed Guidelines for Visits to Archaeological Sites in Saskatchewan

These guidelines apply to all persons, including individual visitors, tourism operators, and agents and representatives of the operators. If only one rule was expressed, it would be "Take only pictures, leave only footprints". However, even this is not a sufficient guideline for care, since foot traffic can surely damage archaeological sites and features. A better statement that applies to tourism, which claims to follow sustainable and proper cultural or ecotourism principles is, "Take only pictures, and tread as lightly as possible on the landscape".

The chief reason for insisting that every archaeological item - or fragment - remain where it was found is to try to ensure that all such evidences remain to be studied more carefully and unobtrusively in the future.

If every visitor to a northern portage site were to remove just one tiny quartz flake or fragment, for example, the site would be altered irreparably in a very brief period of time, because these sites are generally very small, with few artefacts. Thus it is essential that no visitor remove anything from any archaeological site.

General Guidelines

1. Visitors should respect the letter and spirit of laws meant to ensure protection and conservation of both the natural and human heritage of all archaeological sites.

2. Visitors should respect the feelings and beliefs of the many Aboriginal cultures and communities who hold certain places to be historically important and/or sacred, and they should respect the dignity and the remains of the human societies who created the artefacts and features at any particular site.

3. Visitors should respect any particular guidelines for visiting Aboriginal heritage sites established by or in consultation with Aboriginal communities.

4. Visitors should respect the rights of landowners and tenants in the case of leased or owned land, and of all citizens in the case of Crown Lands.

5. No person shall dig, probe, or otherwise seek to discover any archaeological or other objects or soil deposits, either using bare hands or any instruments, without a valid and subsisting permit from the appropriate government agency.

6. If unrecorded artefacts or features are discovered either at a known site or while travelling to or from a site, the appropriate agencies should be notified (Saskatchewan Heritage Resources Branch in Regina).

Site-and Resource-Specific Guidelines

7. No one shall remove archaeological artefacts exposed on the surface (stone chips, flakes and tools; fire-fractured rock; broken bone; metal; glass; pottery sherds or anything else) from any site unless they have a valid and subsisting permit from the appropriate government agency.

8. The most common surface remains encountered in northern Saskatchewan are flakes and artefacts of quartz and to a lesser extent other materials, Fur Trade artefacts of metal manufacture, and mining structures and equipment found in clearings, portage trails, or on outcrops. No one shall collect or remove any such materials (however small) from any site without a permit.

9. Aboriginal pictographs – paintings on vertical rock surfaces adjacent to the waterways – should not be touched in any way by human hands or instruments. This includes touching them directly with the hands, using chalk, crayon or any substance to "enhance" their appearance for photography; brushing, scraping or otherwise removing lichen or algae growths from the painted rock faces, or splashing or spraying water on the paintings for photography purposes. All such practices are actually or potentially harmful to the preservation of these features.

10. Erratic or field-stone surfaces bearing carved or ground-in figures (rock carvings or "petroglyphs") made by precontact Aboriginal artists, must not be touched in any way by visitors' hands or feet, nor should any substances (such as water or chalk) be applied to them to make them clearer for photography purposes. No soil or plant growths affecting such rock carvings shall be removed or otherwise disturbed.

11. In southern Saskatchewan, surface artefacts can be plentiful at many archaeological sites, exposed either by natural wind and water erosion or by human activities such as farming, road or reservoir construction, etc. All such artefacts must be left in place unless a person holding a valid permit is studying them and recording their context.

12. A major type of archaeological feature found on or above the soil surface in southern Saskatchewan is a variety of stone configurations (including stone circles, cairns, medicine wheels and figures of animals and humans, and lines of stone). Since all stone configurations are fragile resources that have the high potential to be disturbed by machinery and even human foot traffic, visitors must ensure that their movements do not in any way dislodge or remove any of the stones in these features. Geological and botanical studies of these constructions depend on maintaining their physical integrity. In addition to not moving stones, visitors should avoid walking on them to avoid altering the growth of the lichens, which grow on their surface.

Appendix B: Other Resources

Websites

- **Canadian Archaeological Association** – find information about this national association and also discover Canadian archaeology through various links.
  http://www.canadianarchaeology.com/

- **Canadian Museum of Civilization** – this website is a valuable source for teachers and students interested in Canadian history. Peruse through photo galleries, online exhibits, and educational resources.
  http://www.civilization.ca/cmc/home

- **Department of Archaeology and Anthropology, University of Saskatchewan** – includes information about programs and classes offered through the department, and also presents the faculty, staff, and graduate students.
  http://artsandscience.usask.ca/archanth/

- **Museum of Archaeology and Ethnology, Simon Fraser University** – this is a great website focusing on Canadian West Coast archaeology as well archaeology from Central America. There are resources for both teachers and students!
  http://www.sfu.ca/archaeology/museum/index.html

  Also Check Out – "A Journey to a New Land" – an interactive website devoted to the First Peoples in North America. With videos, simulations, photo galleries, and illustrations suited for different age groups, explore the theories and evidence of how people moved across the land from14,000 years ago!
  http://www.sfu.museum/journey/en/home1.php

- **Royal Saskatchewan Museum** – visit this website to explore the history of Saskatchewan. It contains links to current exhibits, education resources, and current research going on at the museum.
  http://www.royalsaskmuseum.ca/index.shtml

- **Saskatchewan Archaeological Society** – features information about the provincial society, current programs and activities (conferences, bus tours, field schools, workshops, etc.), publications, the online library catalogue, and memberships.
  http://www.saskarchsoc.ca/index.html

- **Saskatchewan Culture** – highlights and promotes various cultural events occurring throughout the province.
  www.saskculture.sk.ca/sas/

- **Parks Canada – Teacher Resource Centre** – is a database of activities and information for teachers that can be searched by province, grade, and subject area. Great for historical backgrounds and 3D tours.
  http://www.pc.gc.ca/apprendre-learn/prof/index_e.asp

- **Wanuskewin Heritage Park** – presents the interpretive centre and park located just north of Saskatoon. Also includes information about galleries and exhibits, programs, and special events.
  http://www.wanuskewin.com/

Books

- *The Aboriginal Rock Paintings of the Churchill River*. By Tim E.H. Jones, Saskatchewan Archaeological Society, Saskatoon, 2006.

- *Atlas of Saskatchewan: Celebrating the Millennium*. Edited by Ka-iu Fung, University of Saskatchewan, Saskatoon, 1999.

- *Boulder Monuments of Saskatchewan*. By G. Ian Brace, Saskatchewan Archaeological Society, Saskatoon, 2005.

- *Long Ago Today: The Story of Saskatchewan's Earliest Peoples*. By Henry T. Epp, Saskatchewan Archaeological Society, Saskatoon, 1991.

Archaeo-Kits

One of our most popular educational tools is our Archaeo-Kits. These kits include authentic and replica prehistoric artefacts and a guide book explaining how each item was used, all housed in a refurbished and extremely sturdy WWII ammunition box.

These unique kits were specifically designed to be a hands-on teaching tool for teachers to use in the classroom when discussing archaeology and past cultures. The artefacts may be used in conjunction with one of our videos or slide talks, to give students a chance to touch an artefact that they might otherwise see only in a picture. The Archaeo-Kits are in high demand during various parts of the school year, so make your request well ahead of when you want it.

Like our other educational materials, the use of the Archaeo-Kits is without charge to any S.A.S. member school, organization or individual; the borrower simply pays shipping costs each way. Our procedure for billing this is to invoice the borrower at the time of the loan, for the two-way shipping, and we include the pre-paid return shipping label with the invoice. We are able to pre-purchase shipping labels in quantity at a cost saving to the borrower.

Archaeology Caravans

A series of new educational kits are continuing to be developed. The different activity and information caravans include: An Archaeology Tool Kit; Pottery Making; Rock Art Making; Ceramic Reconstruction Activity; Mapping and Surface Survey Activity; Flint Knapping; Atlatl Activity; Fire Making Activity.

You may contact the Saskatchewan Archaeological Society to arrange for a workshop to come to your classroom or you can visit the Archaeology Centre in Saskatoon (#1-1730 Quebec Avenue) for a field trip. The SAS will help you with creating your own activities as well.

Videos

- **Spirit in the Rocks: Rock Paintings in Northern Saskatchewan**
  (Available through the Saskatchewan Archaeological Society on VHS)

Spirit in the Rocks is a collaborative work between the producers, our sponsors, and the Northern (Woods) Cree people of the Province of Saskatchewan. This 59-minute film combines an acted re-creation of the creation of a rock painting site in the Canadian Shield Boreal Forest area of northern Saskatchewan with a documentary-style explanation of what we now know about the origins, meanings, and age of these ancient rock paintings (pictographs).
Information from historical, archaeological, and ethnographic sources is combined with interviews with Cree residents of the region to shed light on the striking, ochre-coloured images we find on vertical rock "canvases" next to the water in at least 70 locations along the waterways of Saskatchewan's far north.
This film is intended to present this art tradition to a wider audience and by so doing, enlist the support of everyone to respect and protect these fragile and disappearing sites.

- **Discovering Saskatchewan's Past: Videos on Saskatchewan Archaeology**
  (These are all available through the Saskatchewan Archaeological Society on VHS)

Discovering Saskatchewan's Past: 1987 - 1988 Series

#1 What is Archaeology? Archaeologists answer questions about their profession.

#2 The Many Faces of Archaeology Four archaeologists describe their work in museums, university, government and private consulting. (45 min)

#3 Life Before Canadian Tire Eldon Johnson demonstrates prehistoric stone tool manufacture.

#4 Tipi Rings A discussion of tipi ring analysis and a visit to a site in central Saskatchewan.

#5 Archaeology at Nipawin David Meyer describes research in east central Saskatchewan.

#6 Last Prehistoric Hunters Dale Walde directs excavations at a 400 year old bison kill. (28 min)

#7 Rock Art Tim Jones and Ian Brace talk about pictographs, petroglyphs and petroforms (boulder configurations).

#8 Historic Archaeology Olga Klimko and Dale Russell introduce the fur trade era. (31 min)

#9 Last Mountain House The history of excavations and reconstruction of a Hudson's Bay Company Post of the 1870s. (24 min)

#10 Interpretation of Historical Sites Paula Hill, Marilyn Smith and Sharon Wood discuss on-site interpretation at Cannington Manor Historic Park, and at Government House, Regina. (48 min)

#11 Wanuskewin Heritage Park Ernie Walker directs excavations and interpretation at a complex of prehistoric sites. (29 min)

#12 The SAS - 25 Years of Archaeology Eldon Johnson describes the history and the future of the Saskatchewan Archaeological Society.

Discovering Saskatchewan's Past: 1988 - 1989 Series

#1 How to Surface Collect Dale Walde and the Regina Archaeological Society demonstrate the proper way to collect and catalogue artefacts. (36 min)

#2 Learning How to Excavate A visit to the SAS field school at Camp Rayner on Lake Diefenbaker near Birsay.

#3 Excavations at Sheep Camp Site The South West Saskatchewan Archaeological Society excavates and analyses a buffalo jump. (26 min)

#4 Pemmican, Paleo-Indians and Pots Henri Liboiron talks about his interests and experiments in archaeology. (38 min)

#5 The Great Sand Hills (37 min) Henry Epp and Eldon Johnson talk about the ecology and history of the area.

#6 Souris Basin Heritage Project Oral history and archaeology are combined in this investigation in southeastern Saskatchewan. (39 min)

#7 Holy Trinity Church The history and recent restoration of Saskatchewan's oldest standing structure at Stanley Mission on the Churchill River.

#8 Computers in Archaeology Terry Gibson, Butch Amundson and David Kelly show how they incorporate computers into their research. (36 min)

#9 Points, Pots and Prints David Meyer and Terry Gibson talk about two Late Prehistoric sites in the Nipawin area of east central Saskatchewan. (44 min)

#10 The Grant and McLeod Site Olga Klimko describes excavations at two fur trade posts from the 1700s. (36 min)

#11 The Search for the Lost Franklin Expedition Owen Beattie talks about the factors that doomed Franklin's 1845-47 expedition. (30 min)

#12 Blood From Stone Gerry Conaty discusses the travelling exhibit on stone tool manufacturing assembled by the Museum of Anthropology at UBC. (28 min)

Appendix C: References

Fagan, Brian M.
1981 *Archaeology: A Brief Introduction,* 9th edition. Pearson:Prentice Hall, New Jersey.

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1999 *Atlas of Saskatchewan: Celebrating Saskatchewan 2000-2005*. University of Saskatchewan, Saskatoon.

Jones, Tim E.H.
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McMillan, Alan D.
1988 *Native Peoples and Cultures of Canada: an Anthropological Overview.* Douglas and McIntyre, Toronto.

Appendix D: Glossary

Absolute Dating – is a way to determine the age of an artefact using methods such as carbon 14 dating or thermoluminescence dating.

Altithermal – was a climatic episode (ca. 8,500-4,000/4,500 years BP) on the Plains that is characterized by increasing dryness and elevated temperatures

Anthropology – is the study of humanity from the earliest times up to the present, and it includes cultural and physical anthropology and archaeology.

Archaeology – is a branch of anthropology which focuses on the study of past human activity through finding, describing, and explaining the materials that people have left behind.

Artefact – are the material products or remains of past societies.

Assemblage – a collection of artefacts from an archaeological site.

Atlatl – is a device used to throw a dart sized projectile point. The atlatl gives the thrower better height, speed, and accuracy than using the spear alone.

Bison jump – a designated narrow space at the top of a steep cliff where aboriginal peoples would stampede bison over.

Contact Period – in Saskatchewan this begins during the mid 1700s when there was a constant presence of Europeans in the province.

Cultural Anthropology – an aspect of anthropology focusing on cultural facets of human societies.

Culture – a) is the theoretical concept used by archaeologists and anthropologists to describe humankind's external means of adapting to the natural environment. Human culture is a set of designs for living that help mold our responses to different situation.
b) a "culture" in archaeology is an arbitrary unit meaning similar assemblages of artefacts found at several sites, defined by a precise context of time and space.

Culture Area – are areas that are defined by environment and shared cultural characteristics.

Datum Point – is a designated location at an archaeological site from which all measurements are taken. This point is used to establish a grid system. Each unit will also have a datum point to take measurements within the unit.

Decoration – designs and impressions applied to pottery or ceramic vessels.

Dentate impressions – decoration using a tool to press into wet clay leaving behind an impression or a series of impressions.

Ecofact – an object not modified by human manufacture brought into a site.

Effigy – is a stone alignment in/on the ground that can be in the shape of a human or an animal or an abstract image. It has ceremonial affiliations with First Nations groups.

Excavation – is the process of digging and recording at an archaeological site.

Feature – an artefact, such as a house or storage pit, that cannot be removed from a site; normally, it is only recorded.

Flake – a piece of stone material that has broken off of a larger rock during the process of flintknapping or making stone tools.

Function – is the purpose of an artifact, ecofact, or feature.

Grid Unit – a grid system of 1 x 1 metre square units is laid out at an archaeological site. Each unit will be excavated separately and have its own paperwork and records.

Hafting – the way in which a projectile point or other stone tool is attached to the spear/arrow shaft or handle.

Impress – a type of decoration and method of manufacturing pottery where a piece of fabric or cord is pressed into the wet clay.

Incise – a type of decoration applied to pottery when wet; lines and other shapes drawn into the clay.

in situ – is the term used to describe an artefact/feature as it appears in the ground.

Law of Superposition – states that geological layers stratify one on top of another, one at a time, like layers of a cake. Therefore, anything that is found in a layer at the bottom is older than something found in a layer closer to the top.

Lexicon – a list of words belonging to a branch of knowledge or known by somebody, maybe even from a different time period.

Linguistics – is the study of human languages, both ancient and modern.

Material Culture – artefacts used by a specific group of people or cultural group at a given period of time.

Matrix – is any and all of the physical substance that surround the find, be it water, dirt, or other materials.

Medicine Wheel – is a circle of stones that usually has a central cairn (rock pile) in the centre. Some have radiating lines of stones from the cairn. These are spiritual and ceremonial locations used by First Nations groups.

Megafauna – refers to the very large animals that lived during the time of the last glacial episode (for example, mammoths and saber tooth tigers).

Pattern – an image or motif that is repeated over and over.

Petroglyph – images that are pecked into stone or a rock face.

Pictograph – images that are painted onto stone or a rock face.

Physical Anthropology – includes the study of fossil human beings, genetics, primates, and blood groups.

Pottery – cooking and storage vessels made from clay with different types of temper mixed into the clay. After the vessels are formed they are fired to create a rock-hard surface.

Precontact Period – in Saskatchewan this period begins at least 10,000 years BP and ends with the arrival of the first European explorers and traders to the area.

Primary Source – these are items that were created at the time of the period being studied and include things such as diaries, letters, journals, legal documents, photographs, and maps.

Protohistoric Period – is the time when trade goods were filtering into the prairies, but before the consistent contact with Europeans.

Provenience – the position of an archaeological find in time and space, recorded three-dimensionally.

Punctate – a type of pottery decoration made by pressing the end of a (usually) round tool with a flat end, such as a stick, into wet clay leaving a round impression.

Radio Carbon Dating (C14) – is the method for determining the age of organic artefacts/materials (for example, bone or charcoal). It relies on the rate of decay of carbon-14.

Reconstruction – the attempt to refit the pieces of an artifact (pottery or ceramic vessel, glass bottle, or any other artifact), or at least identify pieces that belong to the same artifact.

Red ochre – is an iron oxide which occurs naturally. It is used by people as pigments for paint and dye. It can be red or yellow.

Relative Dating – where items are dated relative to their place in the stratigraphy and to one another.

Rock Art – can either be art that is painted on rock (pictograph) or carved into rock (petroglyph).

Secondary Source – usually documents created after an event has occurred by someone who was not there. These include things like historical books and text books.

Seriation – a method used to relatively date artifacts based on how an artifact's form changes over time.

Sex – is a biological term used to define male or female. The term gender is a socio-cultural term used to note masculine or feminine qualities in people.

Site – any place where objects, features, or ecofacts manufactured or modified by human beings are found. A site can range from a living site to a quarry site, and it can be defined in functional and other ways.

Stratigraphy – is the observation of the superimposed layers in an archaeological site.

Stratum – is a single-deposited or cultural level.

Survey – is the systematic search for archaeological sites.

Symbol – is something such as an object, image, or sound, that is representative of something else.

Tipi ring – is a circle of stones found in/on the ground that were once used to hold down the edges of the tipi covering.

Vessel Type – referring to pottery and ceramics, a variety of shapes and sizes of vessels. For example, plates, bowls, cups, saucers, serving bowls, serving platters, cone shaped, globular shaped, etc.

Wisconsin Ice Sheet – is the last glacier to cover Saskatchewan and the Plains.