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A METIS COMMUNITY IN THE CYPRESS HILLS OF ALBERTA: AN ARCHAEOLOGICAL INVESTIGATION

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-1973-

KLIMOSKI CABIN SITE

REPORT

INTRODUCTION

This report presents data obtained from the archaeological excavation of a historic cabin site located in the Cypress Hills of Alberta and thought to represent a historic Metis occupation.

The report is divided into two section: the first section is a presentation of excavation data, discussion, and interpretations; the second section contains detailed artifact descriptions.

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PART I

THE RECONSTRUCTION

The Site and Its Setting:

The site, designated DjOo-120 and named the Kajewski Cabin Site, consists of the remains of six historic cabins and associated cache pits. These six cabins form a local cluster which is associated with four other clusters of cabins to form a large, sprawling village. The other four clusters have been given independent site designations by Elliott (1971:1): DjOo-122, -123, -124, and -125. The total number of cabins for the historic village is estimated at nineteen.

The village is scattered along the northern slopes of that section known as "Head-of-the-Mountain" at the western end of the Cypress Hills plateau. This area is also the head-water of Gros Ventre Creek. The cabins are situated variously on ridges and slump-blocks in the midst of lodge pole pine, white spruce and black poplar forest. The village as a whole straddles the boundary of Cypress Hills Provincial Park (Alberta), while site DjOo-120 itself lies just outside the Park on the property of Mr. Lawrence Kajewski.

The Cypress Hills provides a setting and environment for site DjOo-120 which differs greatly from that of the surrounding plains. The Hills are actually a dissected plateau, an erosional remnant of a Tertiary peneplain which rises as much as a thousand feet above the plains. This greater altitude results in higher rainfall and lower evaporation rates than on the plains, which in turn allow the growth of chiefly coniferous forests, especially on the north slopes of the plateau. Streams and springs are abundant and grass remains green even during the driest period of the summer. Numerous valleys and coulees provide sheltered areas during the winter months (Bird & Halladay 1967, Holmes 1970, Nalbach ET Alia 1971, Zell & Weihmann 1965).

These features taken as a whole form a unique ecological system, especially vis-a-vis the surrounding grassland environment. We suggest that the placement of site DjOo-120, and the village of which it is a part, in such a setting can hardly be fortuitous.

Excavation History and Methods:

Site DjOo-120 was located in the summer of 1966 during the excavation of a nearby prehistoric site by Robson Bonnichsen and a field-crew from the University of Alberta. A visitor to the prehistoric site, Mr. Plant of Medicine Hat, Alberta, came upon several large pits while walking through the woods east of the on-going excavation. These pits were the major surface indication of the historic site.

Test Excavations:

Early in September 1966 Norman Zierhut made a small test excavation in one of the large pits, the feature now known as the east room of Cabin 'A'. Materials recovered indicated at least a historic occupation for the site. Further test excavations were conducted by Robson Bonnichsen and a volunteer crew during the holiday weekend of October 12, 1966 in an effort to further determine the nature of the structure. For this excavation a two meter square grid system was established. The site proved to be a cabin rich in historic artificats and presumed to be associated with a Metis occupation. It was decided to continue excavation during the summer of 1967.

1967 Excavation:

Further excavation of Cabin A was carried out during May and June of 1967. An axe was used to clear the excavation area of poplar and spruce trees. The two-meter square grid system established the previous fall was retained and expanded. Leaf litter and twigs were removed with a shovel. Since the site is shallow, the trowel and dust pan method was used for excavation. Several procedures were followed during the excavation:

1. All artifacts were left <u>in situ</u> throughout the excavation, except in the cache pit area, in an attempt to establish distributional associations between materials.

2. The positions of diagnostic artifacts were recorded using an x-y coordinate system in conjunction with each two-meters square.

3. Since it was obvious that sherds of specific glass and ceramic artifacts were badly scattered (often across several squares), these fragments, nails, etc. were simply recorded by square number.

4. While the occupation layers in the cache pit were excavated using the trowel and dust pan method, the sterile fill layers were removed by skimming with a shovel. Mounds of clay, the remnants of chinking, were also removed by shovel skimming.

5. A large portion of the occupation fill was screened in order to recover beads and other small objects.

One of the two rooms of Cabin A was excavated as indicated above. The outlines of the other room were traced, but the room itself was not excavated. A preliminary report of this excavation has been published by Bonnichen (1967).

Later Excavations:

In 1969 Jack Elliott excavated Cabins B and E of this site. This work is reported in Elliott (1971).

Analytical Methods:

The basic interest of the authors is to study human adaptation within the evolutionary framework of human history. In order to accomplish this end utilizing the material presented in this paper, it is necesary to establish a descriptive analytic model for handling historic artifacts.

In the model utilized in this paper artifacts are classified in two ways:

(1) Universal functional categories, such as food, transportantion, clothing, etc., are established. These universal categories are the highest level of grouping and allow direct comparison between historic and prehistoric cultural systems of artifacts in the same functional category.

(2) Since the artifacts dealt with in this paper are primarily the products of one or more Euro-American cultures, the Euro-American folk-taxonomy has been used to identify and classify artifacts. Thus, a series of artifacts "classes" have been established (such as buttons, beads, gun-parts, etc.). These classes have then been arranged under the functional categories described above. This procedure has resulted in the splitting of some classes for presentation under different functional categories. For example, the artifacts of the 'class glass' are described under various different functional categories. The folk-taxonimic class "glass", based on material of composition, is functionally split into disparate groups. This allows a realization of the true nature of the artifacts involved in the classification.

Artifact descriptions based on this model are presented in the second section of the report.

Metis Ethnohistory and Social Organization:

Metis occupation of the Cypress Hills and adjacent areas before the demise of the bison was strictly seasonal and impermanent in character. The metis in question, the hivernants (winterers) or "free-men", pursued a life rather similar in many ways to that maintained by the Indian groups of the northern Plains. The summer would be spent in the collection of robes and meat supplies at the expense of the bison, while winter was endured in temporary villages and relative inactivity. Table 1 gives various descriptions of this seasonal round. Tremandan's account of the Metis based at the Red River Colony is included to provide background and perspective on the true hivernants, to whom the rest of the accounts apply. Further information regarding the wintering aspect of the seasonal round is given in Table 2. The following general summary is based upon the information provided in the tables and, especially for some details, on the accounts and discussion in Elliott (1971), Lestanc (1910), Rodney (1969), and Rondeau (1923).

Wintering:

The tendency of the Metis was the construct a new wintering village each year, often in a completely new location. The site for such a village was dependent upon at least four factors: nearness to wood, to water, to horse pasturage, and to bison wintering areas. Construction and occupation of the winter village occured sometime between mid-October and (probably) early December. Log cabins of one and occasionally two rooms were built for each family and, if there was to be a resident priest, a small chapel or church as well.

Although winter was a time of relative inactivity, some hunting of bison was undertaken using sleds. Hunting of other animals and trapping for firs probably also was engaged in to some extent. Primarily, however, the winter was the social season, marked by dances, gambling, the contracting of marriages, and other activities.

Summer Hunt:

Winter villages were abandoned in mid-May, or as soon as the snow had melted from the Prairies. Apparently some elements of the formal organization of the Red River Hunt were retained by the hivernants in the election of a hunt Captain or several hunt officers who directed activities throughout the summer season. All members of the families would accompany the hunt, with all or most possessions packed into each family's Red River carts and transported with them throughout the summer. A priest would sometimes accompany the summer hunt.

While the camp was in movement, scouts spread out ahead of the line of march would search for the bison herds. Once bison were found the usual hunting methods were to surround or run the herd and shoot as many as possible. Pere Lacombe (in Rondeau 1923: 39-40) notes the use of bison jumps on occasion.

Evening Camp was made with the carts drawn up in a circle as a defensive measure and guards posted to prevent horse stealing by parties of Indians. Tipis or tents of skins and canvas were usual summer dwellings.

TABLE 1: Metis Seasonal Round

Source	Area	Wintering	Summer Hunt
Tremaudan (1935:61-66)	Red River Colony	Wintering at Red River Colony: Permanent homes; social life was mostly in winter (dancing, gambling, etc.) fishing sometimes necessary in the spring if the meat supply is exchausted.	Red River Hunt: begins by mid-June Hunt officers chosen at beginning of hunt; women and children accompany hunt; return to red river gradually in small groups.
Lestanc (1910:22-24)	Wood Mountain	Wintering area is chosen during the middle of October; occupation is a little before the end of October (as soon as dwellings are constructed); church built if there is to be a resident priest; hunting of bison during winter using sleds.	Metis merchants would start for Winnipeg in the spring with the furs; hunted during summer in large groups and lived in tipis.
Brown, in Rodney *1969:100-112)	Cypress Hills Vicinity	Lived in log cabins in winter, these cabins seldom re-used; the village was built in November or December; horses were turned loose to forage in winter; "A little hunting" of bison during the winter.	Wintering village left in May; tents lived in during summer, travois sometimes used in addition to Red River cart; a chief hunter was chosen by vote at the start of each summer hunt; running a hard was one means of killing bison.
Rondeau (1923:10)	Wood Mountain Cypress Hills Area	Lived in villages throughout winter	Summer hunt begun as soon as snow melts (early May); hunting done in bands with possessions carried in Red River carts; accompanied by a missionary.
Lacombe, in Rondeau (1923:39-40)	-	-	Winter camps abandoned "about the middle of May", hunt officers selected at the beginning of the season; accompanied by the missionary; lived in ipis; bison usuallykilled in a surround, but occasionally driven over cliffs.
		-	Metis form a "big camp" for portection;

The Cypress Hills:

Regarding the Cypress Hills specifically, the information on Metis settlements is sparce. Rondeau (1923: 64 & 104) notes Metis wintering villages in the Cypress Hills during the winters of 1875, 1876, 1877, and 1879. Apparently there were at least three villages which were occupied and re-occupied during the winters of 1875-1877, each with its own chapel.

Surgeon Kittson, N.W.M.P. while referring to the epidemic at Fort Walsh in 1879, states that: "Out of five half-breed hamlets in the Hills, only one escaped the epidemic. At the Head-of-the-Mountains; twenty-one miles west of Fort Walsh, some twenty and odd families generally gather there in the early fall to make their homes for the winter in a secluded spots, well sheltered by a forest of beautiful firs, and where a spring of clear, pure water wells forth in their very midst; not one in this community ever had the fever." (Department of the Interior, Canada 1880: Part 3, p.29).

This is probably a reference to the village composed of sites DjOo-120, -122, -123, -124, and -125.

Cabin Structures:

The structural features of Cabin A, Dj0o-120, are summarized in Table 3. For comparative purposes Elliott's descriptions of Cabins B and E (1971: 25-27, 282-285) are also summarized in Table 3. In all three cabins the structural remains are limited to floor features or features located near floor level; consequently, no archaeological data on the upper portion of the cabin superstructures is available. Apparently the superstructures of all three cabins were burned at sometime in the past, probably as a result of accident or forest fire.

Comparison of the cabins suggests a large degree of uniformity in the occurance, construction, and placement of the features. The specific concurrences are:

1. The presence of floor boards laid parallel to one of the cabins walls.
2. A chimney and hearth, constructed of clay-mud and either cobbles or a wooden frame and white-washed in whole as in part with white clay, is situated in each room at the middle of the north wall.
3. Three of the four completely excavated rooms have one or more interior cache pits sunk into the floor.
4. Each cabin has one or more exterior cache pits associated with it.
5. the rooms vary between 4.9 and 6 meters in length and 4.6 and 5.22 meters in width.
6. If we assume that doorways and windows were placed on the side of a cabin opposite the hearth (as is the case in Cabin E, the only instance where the position of the doorway is known), then the cabins faced either southeast or southwest (in essence: somewhere to the south).

Contrasting with the structural concurrences are the structural variations:

1. The floor boards of the east room of Cabin A are laid parallel to the east and west walls, whereas the floor boards in Cabins B and E are parallel to the north and south walls.
2. The floor of the west room of Cabin A is covered with a layer of sand, a feature not found elsewhere.
3. The floor of the east room of Cabin A apparently was covered with rubber tiles; these are unknown in the other cabins.
4. Cabin E lacks an interior cache pit, such as are present in the other cabins.

As a whole, the cabins conform very well to the ethnohistoric descriptions of Metis cabins which are summarized in Table 2. Thus, the structural data favors the interpretation that the cabins of Dj0o-120 were built and used by Metis hivernants.

TABLE 2: Metis Cabin Construction

Source	Area	Walls	Floors	Roofs
Tremaudan (1935:52-53)	Red River Colony	Squared Tree trunks interlooking one with another by dovetails"; gaps between logs filled with clay; exterior & interior walls were whitened with lime.	"Often floorless"	"The triangular roofs were covered with thatch, bark, or clay".
Moodie (1965:114-116)	St. Albert Settlement (near Edmonton, Alberta	The logs were "laid horizontally one above the other and joined at the corners with a 'dovetail' (i.e., mortis and tenon) or a saddle construction."; chinked with a grass and mud mixture; the outside is covered with clay.	Some are of hewn logs, some of ponded earth; "sometimes a small cellar was sunk beneath the floor.	A water-pitch roofs; Lattice-wirk of poles and bark.
Calihoo (1953: 21-22), Quoted in Moodie (1965:115)	St Albert Settlement.	-	-	-
Lestanc (1910:22)	Wood Mountain	"Frame"	-	-
Decorby, in Rondeau (1923: 64)	Wood Mountain	-	"A good floor"	-
Rondeau (1923:31)	Wood Mountain	Constructed of tree-trunks and plaster; interiors were well plastered with clay.	-	-
Brown, in Rodney (1969:109-110)	Cypress Hills Vicinity	"Log"	"Puncheon Floors"	-

Fireplaces & Chimneys	Doors & Windows	No. of Rooms	Location
"Until the appearance of iron stoves, a large hearth of clay covered at part of the wall at the end of the apartment".	"A single door in the center between two windows with panes of dried skin".	1	"They [cabins] bordered on rivers and lakes, under the shelter of a wooden point".
An open fireplace located in a corner away from the door.	Normally two windows and a single door - all cut out of the wall after it was completed; ride-hide used for window coverings; door was made of hewn logs, with hinges of iron, wood, or leather straps.	-	-
"We called them mud stoves, they were made of poles, mud and hay mixed, and more mud and water making a smooth finish. White clay was then mixed in water and rubbed all over with a cloth. When dry, this was white, about a foot away from the mud stove, the floor was plastered down solid, a precaution taken so sparks would not ignite and burn the house...."			
-	"Covered Door"	-	"A valley where they [metis] will find wood, water and abundant pasturage and not too far from the buffalo".
-	-	-	"It is necessary, in effect, to find nearby wood for building and heating and even more to be within reach of the herds of buffalo"...
"Large fireplaces"; chimneys	-	-	-

TABLE 3: Remains of Cabin structures: DjOo-120

	CABIN A		CABIN B		CABIN E
	East Room	West Room	East Room	West Room	
STATUS	Fully excavated	Partially excavated	Fully excavated	Fully exçavated	Fully excavated
Walls	Burned timbers along the north, south and west walls, mounds of clay (chinking) outlined the walls.	A few burned timbers along the north and south walls, Mounds of clay (chinking) outlined the walls.	Burned timbers along all four walls.	Burned timbers along all four walls.	Burned timbers alon three walls. Wooder sill indicates a doorway in the midd of the south wall.
Floors	Floor boards (in the form of planks), especially along the south side of the room. These boards are laid parallel to the east and west walls. Fairly large quantities of rubber tiles come from all parts of the room.	Four inch thick layer of sand.	Floor boards laid parallel to the north and south wall. Appear to be present only across the center of the room.	Floor boards laid to the north and south walls. Only a small part of the floor covered in this way.	Floor boards laid to the north and south walls. confiend to the north half of the room.
Hearts & Chimneys	Chimney of mud and quartzite robbles. Located in middle of northwall. A clay (kaclinitie) marks the outer edge of the clay apron.	None(?)	Chimney of Clay with pole framework. Located in middle north wall. White clay wash in firepan	Chimney of Caly with pole framework. Located in middle of north wall White clay wash in firepan	Chimney of clay wit pole framework. Located in middle north wall. White wash in firepan.

	CABIN A		CABIN B		CABIN E
	East Room	West Room	East Room	West Room	
Interior Cache Pits	Total of Three: a) A large bell-shaped cache pit in SE Quadrant of the room; b) A small conical cache pit in the NE quadrant of the room, and c) a conical cache pit of intermediate size in the SW quadrant of the room.	None (?)	A single conical/basin-shaped cache pit in the NW quadrant of the room.	Two conical/basin shaped cache pits in the SW quadrant of the room.	None
True directional Orientation of Cabin longitudinal Axis	SE-NW		NE-SW		NE-SW
Dimensions of whole Cabin	(33 x 16 Ft.) 10.22 x 5.22 m.		31 x 15 Ft. (9.5 x 4.6 m.)		19.5 x 16.5 Ft (6 x 5 m).

Economic Patterns Reflected Cabin A:

In Appendix the artifacts from Cabin A have been analized in a series of charts. Each chart represents those artifact classes which have been assigned to a specific adaptive category and analizes them in terms of their presumed possible function(s) (procurement, transport, manufacture, use, maintenance, storage, and discard) and according to their presumed origin (native input-V5-trade input).

The most striking pattern to emerge from this analysis is the fact that very few of the recovered artifacts or artifact classes can be considered as native input. Only leather, stove tools, chinking, and wood scraps can be considered as coming from the native environment, and leather is in the equivocal position of possibly being a trade item. All other artifacts seem to be trade input. This suggests a high degree of de facto dependence upon the Euro-American manufacturing system and its local outlets, primarily the trading posts.

No agricultural implements of any sort were recovered. The implements present suggest only two sources of subsistence: hunting (gun parts, ammunition, knives, etc.); and manufactured foods (iron cans, bottles, jars, etc.).

The presence of "heirlooms", i.e., items whose terminal date of manufacture significantly predates the indicated time of occupation, suggests the purposeful retention and probably the repair of at least some items. Thse "heirlooms" are mostly crockery, buttons, and beads, suggesting that crockery and clothing were the principle items retained and used over substantial periods of time.

The faunal data (Appendix) suggest bison as the principle animal associated with Cabin A. Its logical status is that of prey, a game animal hunted to supply food and probably skins. All other animals present are represented only by one individual. The remains of jackrabbit, skunk, kit fox, badger, a kind of squirrel, a possible mountain

sheep, porcupine, wolf or coyote, and swan suggest the occasional trapping and hunting of other animals and birds for pelts and possibly for food. Three domesticates are also present: horse, cow, and sheep. Horses were historically used primarily for transportantion, however, the recovered horse remains show signs of butchering, suggesting use as food by the occupants of Cabin A. The horseshoe and horseshoe nails also support the presence of horses. The cow remains were collected on the surface, so many post-date the actual occupation. The sheep skeleton, however, was clearly buried in the exterior cache pit and is associated with the occupation. As already noted above, domestic sheep were present in southern Alberta in the early A.D. 1880's. The individual represented here may have been acquired to supplement the diet of the cabin's occupants, especially in view of the rapid decline and disappearance of the bison during that period. Canine tooth marks on several bones suggest the present of a dog or dogs.

Gathering activities are suggested solely by the hazel nut sheel fragments. As hazel nuts are not part of the Cypress Hills flora, there must have been gathered elsewhere.

Summary of Economic Evidences from Cabins B and E:

Artifactual materials reported by Elliott (1971) for Cabins B and E are in most respects identical or very similar to those from Cabin A. A few items, however, deserve mention: several pipes made from the local Frenchman's Sandstone were recovered from Cabin B (Elliott 1971: 206-208), several flaked stone projectile points were recovered from Cabin E (1971: 212-213), and trap parts were also found in Cabin E (1971:219-220). The trap parts help confirm the suggested pattern of trapping various animals. The sandstone pipes add significantly to the list of native input artifacts. On the other hand, the projectile points are probably intrusive items from some prehistoric site(s).

Elliot reports a greater range and number of faunal remains from Cabins B and E (1971:240-281). In addition to fauna reported from Cabin A, he lists: elk, beaver, deer, antelope, red fox, cougar, bobcat and lynx, cottontail rabbit, undifferentiated rodents, possible grouse, (Canada goose, and pike. In terms of number of individuals, rodents, porcupine, bison, and wolf predominate. This suggests a wider range of trapping and hunting than the data for Cabin A. Domesticates are represented by horse and sheep remains and canine gnawing marks on bones suggest the presence of dogs.

Elliott states that he found no evidences of agriculture or plant collecting (1971:46).

Social Patterns at Cabin A:

If we can assume that the inhabitants of Cabin A possessed patterns of usual division of labor similar to those present in the Euro-American cultures, then the artifactual evidence would favor occupation of Cabin A by a family. The presence of fragments of one or more china dolls suggests the presence of at least one child. This is turn would favor the presence of a wife and mother, as would the presence of crockery, cutlery, and perhaps, the sewing equipment (thimbles and needles). The presence of a man is suggested by the occurance of hunting equipment.

Consequently, the simpliest social unit to postulate for Cabin A is a nuclear family. There is no firm archaeological evidence of more extensive relations aside from trade items, the apparent spatial association of Cabin A with others to form a loosely structured village and the great similarity in material culture and cabin structures between Cabin A and Cabins B and E.

Three occupations and abandonments of Cabin A, not necessarily by the same individuals, are suggested by stratigraphy. No evidence regarding the religion of the inhabitants of cabin was found in the artifact assemblage or the cabin structures or in their distribution.

As cabin A was not fully excavated, it is not possible here to evaluate Elliott's hypothesis that each room of a Cabin was occupied by an individual nuclear family and that nuclear families sharing a cabin were part of the same descent group (1971: 48-49).

An attempt was made to define activity areas within and around Cabin A by plotting the distribution of artifact types and classes. This attempt failed. Clustering of artifacts did occur in low spots on the Cabin floor, an effect presumed to be caused by erosion and other physical forces under the influence of gravity. Furthermore, since three separate occupations had occurred and no stratigraphy was present except within some of the cache pits, any clustering which did occur could not be considered representative of activity areas in use during any one occupation.

Social Patterns at Cabins B and E:

Elliott concludes that "each single room represents a small nomadic nulear family with a usual division of labor..." (1971:48). He further assumes a probable the existence of a "biological-social relationship" between the families in each room of Cabin B, later defined as membership in the same descent group, and as possible the existence of "linguistic and political-social" relationships between the inhabitants of Cabins B and E (1971:48-49).

Elliott defines a number of activity areas within and around Cabins B and E (1971:28-41). However, since Cabins B and E, like Cabin A, have no stratigraphy outside of the Cache pits and appear to have had more than one occupation, we question that the resulting artifact clusters represent bona fide activity areas.

Interpretation of the Site:

On the basis of archaeological and historical data we believe Site Dj0o-120, and the village with which it is associated, to be the remains of a Metis wintering village. The reasons for this interpretation are as follows:

A. Archaeological:

1. The artifactual remains are almost entirely of historic Euro-American origin, with few Indian artifacts.
2. The subsistence patterns reflect only hunting and trading activities, with no trace of agricultural activities.
3. The cabin structures and features closely resemble those reported for historic Metis cabins.
4. The dating of occupations indicates that they are mostly earlier than the first main wave of settlement, which coincided with the advent of the railroad in the early A.D. 1880's.

B. Historic:

1. The location of the village to which Dj0o-120 belongs matches that given for a Metis settlement of the late A.D. 1870's.

We feel that these points demonstrate our interpretation that this site is a Metis settlement rather than an Indian camp, a fur-trade post, or settler village.

In terms of adaptation, Dj0o-120 represents a portion of the seasonal round of a semi-nomadic, semi-sedentary people who had adopted and blended both Aboriginal and European cultural patterns into a culture suited to the opportunities and difficulties present on the northern Great Plains during the latter half of the nineteenth century.

Stratigraphy and Dating of Cabin A:

The main portion of Cabin A exhibits no occupation stratigraphy; only deposits in two of the interior cache pits (the east and northeast pits) attest to a multiple occupation of the structure. The stratigraphy of the northeast interior cache pit is the simpliest: the bottom of the pit is covered with a layer of unburned decomposed organic material and historic artifacts; above this cultural layer, the pit is completely filled with an unconsolidated grey-tan sterile clay thought to be old day chinking; a burned timber or floor board lay over the mouth of the pit at the floor level of the cabin in association with ashes, burned boned and charcoal.

The stratigraphy of the east interior cache pit is more complex (see Fig.): three cultural layers, designated 1-3, and four layers of sterile fill, designated A-D, occupy the pit. The bottom of the cache pit is occupied by a thick layer of sterile, dark brown organic clay (layer D). Immediately above is a thin band of cobble implements and broken bison bones (cultural layer 3). Another layer of sterile, dark organic clay (layer C) is followed by a band of unburned organic material containing numerous historic artifacts (cultural layer 2). Most of cultural layer 2 is subsequently covered by a layer of unconsolidated grey-tan clay, probably old chinking material (layer B). The last cultural layer (cultural layer 1), composed of burnt wood and bone mixed with historic artifacts, overlies layer B and a small portion of cultural layer 2. A final sterile layer (layer A) caps the pit with pieces of fire-baked clay chinking mixed with unburned clay.

Comparing the two cache pits, the cultural layer and layer of chinking clay in the northeast cache pit seem to correlate with cultural layer 2 and layer B respectively in the east cache pit. Cultural layer 1 of the east cache pit seems to correlate with the widespread evidences of burning found on the cabin floor and may be considered contemporaneous. Thus, from stratigraphic evidence, three occupations seem to be indicated, separated by hiatuses of undetermined length.

Approximate dating of the three occupations is possible through datable historic artifacts. For detailed descriptions of these and other artifacts and discussion of their time ranges, see the appropriate section below.

The single cultural layer in the northeast interior cache pit yields two datable artifacts: a serpent side plate from a trade gun, time range A.D. 1700-1886+, and a modern machined nail (type 1), with a time range of A.D. 1840 to the present. This cultural layer, and the occupation it represents, thus appears to be dated to sometime between A.D. 1840 and A.D. 1886+.

In the east interior cache pit cultural layer 3 yields only a single datable artifact: a modern machined nail (type 1) with a time range of A.D. 1840 to the present. Cultural layer 2, on the other hand, is rich in datable artifacts, which are given in Table 4.

TABLE 4

Datable artifacts from Cultural Layer 2, East Interior Cache Pit, Cabin A, DjOo-120:

	ARTIFACT		TIME RANGE
4	Henry .44 Caliber cartriges	ca.	A.D. 1866 - 1890
1	.44/40 Lead Bullet)		A.D. 1873 to present
1	Winchester(?) .44/40 cartridge)		
	Pearlware with Cobalt Blue Glaze		A.D. 1780 to ?
	Lead Foil		A.D. 1870's
9	Modern machined nails (Type 1)		A.D. 1840 to present
5	Lathe nails (Type 2)	ca.	A.D. 1790 - 1810
3	Wire nails (Type 3)		A.D. 1850's to present
1	Brass Button (Type 5)		A.D. 1830's to present
1	Shell button (Type 10)		A.D. 1837 - 1885
31	Intermediate size beads (Type 3)		Late A.D. 1700's to early
422	"Seed" Beads (Type 3)		1800's.

Comparison of the time ranges of artifacts from cultural layer 2 suggests a time range between A.D. 1873 and A.D. 1890 for the layer. The beads and the lathe nails, which show a much earlier time range, are probably remnants of "Heirlooms". As is noted in the full description of button types, the shell button probably has a later time range in the West than along the eastern seaboard.

Cultural layer 1 of the east interior cache pit has a smaller, though quite informative group of datable artifacts. These are listed in Table 5.

TABLE 5

Datable artifacts from Cultural layer 1, East interior cache pit, Cabin A, Dj0o-120:

	ARTIFACT	TIME RANGE
	Pearlware with cobalt blue glaze	A.D. 1780 to ?
1	Plate (earthenware with transparent	A.D. 1847-1867
	Ironstone China	A.D. 1851 to ?
	Lead Foil	A.D. 1870's (?)
1	Modern machined nail (Type 1)	A.D. 1840 to present
1	Tooth of a rubber comb	A.D. 1851 to present
1	Brass button (Type 3)	A.D. 1785 - 1800
1	Pressed steel button (Type 6)	A.D. 1870 to ?

Artifact time ranges for cultural layer 1 only allow a placement of that occupation sometime between A.D. 1870 and the present.

Other datable artifacts were recovered from the floor of Cabin A and adjacent areas. They are listed in Table 6:

TABLE 6

Datable artifacts from floor and adjacent areas, Cabin A, Dj0o-120:

	ARTIFACT	TIME RANGE
1	.52 Caliber lead bullet	A.D. 1874 (/)
1	.56 Caliber lead bullet	A.D. 1861-1920 or A.D. 1874 (?)
1	.41 Caliber (?) cartridge	A.D. 1874 (?)
1	.52 Caliber (?) cartridge	A.D. 1874 (?)
1	.50 Caliber (?) cartridge	A.D. 1874 (?)
	Earthenware with cobalt blue glaze	A.D. 1871-1860
1	Detachable stem pipe	A.D. 1850's to ?
1	Brass button (Type 4)	A.D. 1760 - 1785

The time range suggested by the artifacts in Table 6 is approximately A.D. 1861 to A.D. 1920. Table 7 summarizes the time ranges derived from historic artifacts for the occupations of Cabin A.

TABLE 7

Summary of time ranges: Historic Artifacts by Layer Provenience, Cabin A, Dj0o-120:

Northeast Cache Pit	East Cache Pit	Cabin Floor, Etc.
	Cultural Layer 1: A.D. 1870 to present	Ca. A.D. 1861 to 1920
Cultural Layer: A.D. 1840 to 1886+	Cultural Layer 2 A.D. 1873 to 1890	(may include materials from all occupations)
	Cultural Layer 3: A.D. 1840 to present	

The faunal remains also aid in assigning dates to the occupations of Cabin A. All cultural levels in Cabin A contain bison bones. The last large herd of bison in Canada was in the Cypress Hills area in A.D. 1878; after that small herds and individual stragglers were noted in the vicinity of the Hills as late as about A.D. 1885 with decreasing frequency. Meanwhile, the last large herd of the Plains bison was destroyed in A.D. 1881 in the Judith Basin in Montana (Bonnichsen & Baldwin 1973). Thus, A.D. 1885 should be considered the latest reasonable date for bison hunting in the Cypress Hills area.

The skeleton of a domestic sheep was recovered from the exterior cache pit. A few domestic sheep were brought into Alberta in A.D. 1877 (Kelly 1913:120), but substantial numbers were first imported in the early A.D. 1880's. Between A.D. 1881 and A.D. 1884 there were a number of flocks of 2,000 to 5,000 head in southern Alberta (Blue 1924:345).

These faunal data suggest a terminal date of A.D. 1885 for the possible occupation of Cabin A and A.D. 1881 as the earliest probable date for the placement of the sheep skeleton in the exterior cache pit.

In summary, the archaeological data indicate three occupations of Cabin A, occurring sometime between A.D. 1840 and A.D. 1885. At least the last occupation was sometime between A.D. 1880 and A.D. 1885, as suggested by the sheep remains, and the second or middle occupation sometime between A.D. 1873 and A.D. 1855 on the basis of the dating of the historic artifacts.

If we can assume that this cabin is indeed one built by Metis hivernants, the historic data given previously would suggest A.D. 1875 as the earliest probable year of occupation. Furthermore, the three occupations could be viewed as representing three separate (and not necessarily consecutive) wintering.

Stratigraphy and Dating of Cabins B and E:

As in Cabin A, there was no stratigraphy in the main portions of Cabins B and E. Elliott reports stratigraphic separation of up to three cultural layers (interpreted as three occupations) within the interior and exterior cache pits associated with Cabin B and E, but does not adequately describe as figure the stratigraphy (1971: 29, 31-32, 35-36, 39-41), Consequently, correlation of cultural layers between cache pits is difficult if not impossible, with the result that the occupation history remains unnecessarily ill-defined.

Elliott dates the occupation(s) of Cabins B and E as sometime between A.D. 1860 and A.D. 1882/1886. (1971: 43-45). This dating seems reasonable, but it suffers from the vagueness in the stratigraphy which is noted above. In general, however, the stratigraphy and dating of Cabins B and E do seem to agree with that of Cabin A.

I. FIREARMS AND AMMUNITION:

A. GUNPARTS

(1) Scaly Dragon or Serpent Side Plate:

One complete specimen, a cast brass side plate (A-84), was recovered from excavations. (Plate 6a). This type of side plate was used for decoration on many trade guns produced by various manufacturers. It was mounted opposite the lock by means of three gun screws. R.S. Kidd (1970 suggests that this style of side plate was brought into North America in 1700 and was used until 1886 at least.

The side plate recovered from Cabin A is comparable in shape and dimensions to that on a "Parker Field Company" flintlock manufactured in London in 1871 and now held in the Provincial Museum and Archives of Alberta Firearms Collection.

However, the cross section of the serpent coils of the excavated specimen is the same thickness as the rest of the plate, unlike serpent side plates recovered from Fort George (R.S. Kidd 1970). Two notches are filled into the upper edge of the reserve side of the plate, posterior to the dragon's head. These notches are 2.0 mm. long and 7.5 mm. apart. (Plate 6b). They are possibly gunsmith's marks made during the repair of the gun (Clark 1972). Similar evidence of this type of notching has been discovered on gunparts recovered from fur trade posts on the Saskatchewan (ibid).

(2) Brass Trigger Plate:

The brass trigger plate (A-85) recovered from Cabin A is similar to those found on early trade guns (Plate 6c). A positive identification as to specific make of firearm was impossible. What seems to be a series of gunsmith's notches is located on the upper outside edge parallel to the trigger slot. Spacing of the notches is uneven, varying from 2.0 mm. to 5.0 mm. apart.

(3) Brass Ramrod Tip:

The ramrod tip (A-97) has a flat end for use in loading the firearm as opposed to tips with patch loops used in cleaning the bore (Pate 6d). The base diameter is constricted from 10.0 mm. to 8.0 mm. A threaded aperature to take a metal screw from the end of the ramrod is located on the base and is 4.0 mm. in diameter.

(4) Brass Ramrod Guide:

Usually several of these were used to secure the ramrod under the barrel of the gun when not loading or cleaning. One cylindrical specimen was recovered in excavation (A-270). A small section of wooden ramrod was preserved within the gude.

B. LEAD SHOT

Ten specimens of lead shot were recovered, which vary in diameter from 2.0 mm. to 4.5 mm. (Nos. A-144a, A-145, A-166, A-191) and may have been used in fowling pieces.

C. AMORPHOUS MELTED LEAD SCRAP

Altogether eight pieces of melted scrap (A-88b, A-144b) were recovered. They may be refuse from the manufacture of lead shot or balls (Plate 7a).

D. CAST LEAD BULLETS

A .44 caliber bullet (A-38) which had not been fired was recovered. This kind of bullet was manufactured by Winchester from 1866 to 1890 for use in the Henry Rifle or the Winchester Model 1866 rimfire rifle (Butler 1971).

Two .44/40 caliber lead bullets, both fired both fired, were recovered (A-35, A-48) (Plate 7b). They were manufactured by Winchester after 1873.

In addition to the above, two bullets of unknown make were found. One is a .52 caliber (A-45) and the other is .56 caliber (A-49) (Plate 7c). Winchester manufactured bullets for rimfire ammunition of both calibers in 1874 (Butler 1971 241). Spencer rifles were also chambered in .56 caliber (.56/.56). This ammunition was manufactured from 1861 to 1929 (ibid:226).

E. CARTRIDGE CASES

Five expended .44 caliber Henry Long cartridge cases and one misfired case were recovered (A-31, A-32, A-33, A-36, A-37, A-46). The cases are made of copper and have a raised letter "H" surrounded by a circle stamped on the head (Plate 8a). They were manufactured by Winchester ca. 1866 to 1890 for use in the Henry rifle patented in 1860 and for the model 1866 Winchester rifle. They were also used in several single shot rifles.

C.S. Smith (1960:234) and Butler (1971:238) state that both the 1860 Henry and the 1866 Winchester had double firing pins to ensure ignition in the rim fire cartridge. All six specimens showed double firing pin marks on the rims. The misfired specimen still retains a portion of the original bullet; however, the bullet has been severed even with the lip of the artridge case.

At least two different firearms discharged these cases. This hypothesis is based upon the fact that three of the cases have a prominent convex bulge on the head of the case caused by head space in the breech of the rifle. The remaining three cases show no expansion due to head space.

Although it is difficult to determine what exact make of rifle fired these cartridge cases, manufacturing statistics tend to favor the Winchester Model 1866. Only 10,000 Henry rifles were manufactured and used as opposed to the more sturdy Winchester of which many thousands were manufactured (Butler 1971:238). Two cartridge cases of .44/40 center fire ammunition were also recovered (A-34, A-37). The cases are made of brass and the primers are copper. One is complete and has been fired; the other unfired incomplete specimen is constituted of a head and a small portion of the body.

Forty-four forty caliber center fire ammunition was mnaufactured by Winchester for use in the Winchester Model 1873 rifle and the Colt Magazine rifle. The Colt Single Action Army revolver was chambered for 44/40 caliber ammunition in 1878 (Butler 1971: 245-246).

Three additional cartridge cases of unknown manufacture were recovered. The first (A-42) is a rimfire cartridge with a copper case. The head has a large circle stamped on it and double firing pin marks attesting to the fact that the cartridge has been misfired. A portion of the bullet is still present in the case. Measurement suggests that this case is .41 caliber, Butler (1971) notes that Winchester was manufacturing .41 caliber ammunition in 1874.

The second cartridge case (A-43) is a copper rimfire specimen with a single firing pin mark on the head. There is no manufacturer's mark stamped on the head. A 4.0 mm. hole has been punched in the body near the base (Plate 8b). Measurement suggests a .52 caliber cartridge; a caliber manufactured by Winchester in 1874 (ibid).

The third cartridge case (A-44) is similar to the second except it is unfired. The bullet is missing; however, the case is still one half full of powder. Measurement suggests a .50 caliber cartridge, also manufactured by Winchester in 1874 (ibid).

F. SHOTGUN SHELLS

Two specimens of the brass base (A-41, A-225) were recovered. Both are 12 gauge and have been fired. The inscription EB/No. 12/London is stamped on the heads (Plate 8c). They were manufactured by the Eley Company of London, England.

J. LEAD MUSKET BALLS

Four musket balls (A-144b, A-30, A-40, & A-88a) were recovered from Cabin A. Three balls were spherical: .54 caliber (A-40), .42 caliber (A-30), and one of unknown caliber (A-1446). The spherical balls (Plate 9a) are similar in size to those recovered by Kid (1970 B). The fourth ball (A-88a) has been pounded flat to a thickness of 4.7 mm. Both sides are multi-dented by repeated pounding (Plate 9b). Elliot 1971:237 suggests that flattened musket balls may have been used as gambling pieces or tokens.

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Locations	Square and Level
A. Gunparts							
1) Scaly Dragon or Serpent Side Plate	A-84	159.0	22.4	3.0 -3.2	-	N.E. Cache Pit	A11-I
2) Brass Trigger Plate	A-85	76.0	11.0	3.0	-	20 cm S of B11 40 cm (b) B11) in east wall)	A10-I
3) Brass Round Tip	A-97	140.0	-	-	8.0-10.0 (base)	-	A11-I
4) Brass Ramrod Guide	A-270	20.3	-	0.5	11.2	194 cm W of A11 44 cm N of A11 17 cm (b) A12	A11-I
B. Lead Balls:							
1) .54 caliber	A-40	-	-	-	-	-	A11-II
2) .42 Caliber	A-30	-	-	-		200 cm NW of A11 248 cm NE of A12 107 cm (b) C12	E11-II
3) unknown caliber	A-88a	-	-	4.7	-	185 cm NW of A12 235 cm NE of A13 43 cm (b) C12	B12
C. Lead Shot	A-144a	-	-	-	(1 specimen)	-	A11-I
	A-145	-	-	-	(2 specimens) 4.5 mm	-	?
	A-166	-	-	-	(1 specimen) 4.5 mm	-	A11-I
	A-191	-	-	-	(1 specimen) 4.5 mm	-	B11-I
D. Amorphous Melted Lead Scrap	A-88b	-	-	-	-	185 cm NW of A12 235 cm NE of A13 43 cm (b) C12	B12-I
	A-144b	-	-	-	-	-	A-11-I
E. Cast Lead Bullets:							
1) .44 Caliber	A-38	-	-	-	-	Hearth	C11-I
2) .44/40 Cal.	A-35	-	-	-	-	190 cm NW of A11 115 cm NE of A12 103 cm (b) C12	A11-II
	A-48	-	-	-	-	-	?
3) .52 Cal.	A-45	-	-	-	-	-	A11-II
4) .56 Cal.	A-49	-	-	-	-	-	?

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Location	Square and Level
	A-155	-	-	0.8	50.0	-	A11-I
	A-158	-	-	1.0	(93.0) approx.	-	A11-I
	A-159	-	-	1.0	94.0	-	A11-I
	A-160	-	-	1.0	(70.0) approx.	-	A11-I
	A-189	-	-	0.5	39.0	-	A12-I
	A-194	-	-	1.0	78.0	-	B11-I
	A-216	-	-	1.0	48.0	-	B13-I
	A-109	-	-	1.0	-	-	A11-II
	A-157	-	-	1.0	-	-	A11-I
F. Cartridge Cases							
1) .44 Cal Henry	A-31	-	-	-	-	178 cm NW of A11 200 cm NE of A12 105 cm (b) C12	A11-II
	A-32	-	-	-	-	225 cm NW of A11 225 cm NE of A12 104 cm (b) C12	B11-II
	A-33	-	-	-	-	230 cm NW of A11 240 cm NE of A12 100 cm (b) C12	B11-II
	A-36	-	-	-	-	-	B10-I
	A-37	-	-	-	-	Hearth	C11-I
	A-46	-	-	-	-	-	B11-II
2) .44/40 Cal. Winchester	A-34	-	-	-	-	172 cm NW of A11 250 cm NE of A12 113 cm (b) C12	B11-II
	A-47	-	-	-	-	206 cm NW of B12 102 cm NE of B13 59 cm (b) C12	B13-I

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Locations	Square and Level
Round "tinned" Iron Can Ends	A-127	-	-	0.6	87.5	193 cm NW of A11 232 cm NE of A12 101 cm (b) C12	A11-II
						-	C12-I
	A-219	-	-	0.5	42.0	-	A11-I
	A-154	-	-	1.0	88.0	-	B11-I
	A-195	-	-	0.5	-		
Lead Foil						-	B11-II
1) 0.3 mm thick	A-206	-	-	-	(8 specimens)	-	A11-II
	A-179	-	-	-	(11 specimens)	-	B11-I
	A-199	-	-	-	(5 specimens)	185 cm NW of A11 75 cm NE of A12 83 cm (b) C12	A11-I
	A-137	-	-	-	(1 specimen)		
						-	B12-I
	A-211	-	-	-	(2 specimens)	-	A11-I
	A-104	-	-	-	(14 specimens)	-	A11-I
	A-267	-	-	-	(4 specimens)	-	A11-I
	A-167	-	-	-	(13 specimens)	130 cm. NW of A11 140 cm NE of A12 90 cm (b) C12	A11-I
2) 0.5 mm. thick	A-141	-	-	-	(18 specimens)		
	A-167	-	-	-	(1 specimen)	-	A11-I

II. CERAMICS:

The excavation of Cabin A produced 289 sherds of pottery. Approximately 154 of these contributed to the partial reconstruction of eight items including one plate, two saucers, three cups, one porcelain doll, and what appears to be a bean crock. Twenty-five of the remaining 135 sherds were also somewhat reconstructed, however, they did not form any significant percentage of the few items they represented.

To determine the particular kinds of vessels that were exhibited from the remainder of the sherds, which included a substantial number of rim fragments, a radius of curvature measurement was taken from the rim fragments and then the diameter was calculated. All the diameter measurements included in this section are inside diameters which relate more directly to the "container capacity" of the specific items than would an outside diameter measurement. According to the results of the diameter calculations in conjunction with the above information it was discovered that within the enitre pottery sample there were altogether nine cups, nine saucers, two plates, two bowls, one porcelain doll,and one bean crock.

Among these items five different kinds of wares were discovered: a general form of earthenware, pearlware, ironstone, stoneware, and porcelain. Earthenware may be broadly defined as a type of "opaque ware, porous after the first firing and needing to be glazed before being taken into domestic use." (Huges 1963:83, as quoted in Nicks 1969:158). Two hundred and twenty-nine shred of earthenware were uncovered, all but five of these having a transparent glaze. The other five sherds have a cobalt blue glaze which was uded in transfer printing.

Twenty-one sherds of pearlware were also found: eleven with cobalt blue glaze and the remainder with a transparent glaze. Pearlware, which was developed in 1780, can be distinguished by a hard white paste having a greater percentage of flint and white clay than other forms of earthenware (Nicks 1969:159). This type of ware was used mainly for underglaze blue transfer printing, although other wares were used for the same process. Twenty-six sherds of stone ware were uncovered. Twenty-five of these have

a dark brown underglaze and a transparent overglaze; the other sherd seems to have a salt glaze but is so badly burned that it would be difficult to be sure of the exact nature of the glaze. The stoneware is typified by a darker creamy-to-grey colored paste which is coarser in texture than earthenware. It is also a more solid and much stronger from a paste. There was one example of ironstone china which has a transparent overglaze and a white underglaze. It has the J & G Meakin seal with the words IRONSTONE CHINA stamped upon it.

The only examples of porcelain uncovered in the dig were twelve sherds of a "china" doll. Porcelain may be distinguished by a bright white paste with only a slight hint of lustre. It is hard enough so that a steel file will not make an impression upon it. The glaze is transparent and seems to be much thinner than the glazes ofnthe other forms of wares.

Decorative patterns for the pottery fall into basically four categories: stamped designs, hand-painted designs, both stamped and hand painted designs, and transfer printing designs. Almost all the decorated sherds had some sort of floral arrangement as a subject. A color determination for the various patterns with their specific colors was made using the Munsell Color Chart which is divided into hue, value, and chroma. A general name for each particular color is given, however, these are very often poor indicators of the particular color involved because one name could very well transcend a number of hues which would normally be considered very different colors.

Only those items which have some sort of manufacturer's stamp could be dated with any accuracy. However, it was found that even these identifying stamps were not absolute chronological indicators for placing the particular occupations of the cabin. Most of the patterns, could be placed as to manufacturer. Very often the sherds did not form a large

percentage of one vessel and did not exhibit an entire pattern because of their limited size and therefore were of limited use in determining their origins. The greatest difficulty in researching particular patterns lies in the fact that most of the literature dealing with nineteenth-century ceramics tends to illustrate and describe the more ornate patterns rather than the commonplace patterns which are normally found in an archaeological site. Identical patterns have been recovered from the Buffalo Lake Matis site yet. These unpublished materials are housed at the Provincial Museum in Edmonton, Alberta, but have not been identified by manufacturer.

In conjunction with the "form-function hypothesis" the various artifacts have been divided primarily into the different functions they serve: cups saucers, plates, etc. These categories have again been divided into the types of wares with particular glazes to help facilitate in identifying the country of origin. Most of the recognizable wares found in the cabin seem to originate in England. To do a complete analysis on the country or company of origin it would be helpful to obtain the purchasing records of the Hudson's Bay and Northwest Companies, but unfortunately these records were not available for this study.

A. Cups

(1) Earthenware with a Transparent Glaze:

Fourteen reconstructed sherds (A-58), with a stamped floral design were collected. The decorative pattern consists of a combination of light green leaves (10GY-G 7/4) and maroon flowers (10P-PR 5/6). The flowers seem to be quite small (approximately 10 mm.) with a white irregularly shaped center and tear drop shaped leaves. The thickness of the sherds varies according to the position on the cup with an approximate average of 4.0 mm. The inside diameter of the cup is 83 mm. or 3.25 inches.

The cup (A-59) is comprised of seven sherds with a stamped floral design. The decorative pattern consists of a combination of brown flowers (5.0YR 3/5), which because of the stamping process are more tan (5.0YR 6/4) in places, and blue-green leaves (5.0G 5/2). The flowers have a circular

spots in the center surrounded by a brown band 2 mm. thick which in turn is encircled by another larger brown band (5 mm.) which has a saw-tooth design on the circumference closest to the flower and a rounded hilly shaped circumference toward the exterior of the flower. The leaves resemble beech leaves and have a white stem and veins. A dark turquoise line (10G-BG 3/4) runs along both the inside and the outside of the cup's rim. Here too the thickness of the sherds varies according to the position on the cup with an average of about 4.0 mm. The inside diameter of the cup is 93 mm. or about 3 and 5/8 inches (Plate 10A).

Twelve sherds (A-67) with a stamped floral design have been reconstructed. The decorative pattern is characterized by a combination of power blue (5.)PB 5/8) and violet (5.0 P 3/4) flowers on black stems intermingled with green leaves (5.0G 4/4). Each flower is attached to the end of a stem and two adjacent to one another and just below the one on the stem's tip. The flowers are bead shaped, 7 mm. long and 5 mm. wide. The leaves which resemble the flowers are somewhat larger (14 mm. x 8 mm.) and are more tear drop shaped with the pointed ends connected to the stems. The stems appear like vines and are approximately two millimeters thick. The thickness of the sherds vary according to their position on the cup with an average thickness of about 4.0 mm. and an inside diameter of 94 mm. (Plate 10b).

One sherd (A-63) from an undecorated white cup is 6.0 mm. thick. It is 49 mm. long and 44 mm. wide and the inside rim diameter is 93 mm.

Five sherds (A-64) of an undecorated cup were saved. Two of the sherds were fitted together. There is, however, a very small blud smudge (5.0PB.5/8) on the inside portion of the cup of one of the sherds which may indicate decoration or the outer edge of a mnufacturuer's stamp. The thickness of the sherds vary with an average thickness of 4.0 mm. One sherd is part of the bottom of the cup. Since there were no rim fragments the inside rim diameter was not calculable.

Another white undecorated cup (A-69) is comprised of 26 sherds, 16 of which fitted together forming the base of the cup. The average thickness of the sherds is approximately 3.5 mm. with an inside rim diameter of 94 mm.

B. Cup and Saucer Combinations:

(1) Earthenware with a transparent glaze:

(A-70) of a cup and saucer combination, four (4) sherds out of ten (A-70) have been fitted together, to restore part of the saucer (Plate 11a). The hand painted floral design, is characterized by a pattern that is a combination of small, deep, royal blue (5.)PB 4/8) and large maroon (.0.0P-PR 4/8) flowers with apple green (10.0 GY-G 6/8) leaves and black stems. The view of the large flowers which seem to be roses is from the side. The smaller blue flowers (13 mm. x 8 mm.) are bell-shaped, and are also seen from a side view. Three petals branch out from the bottom of the bell and there are three white slits vertical to the bottom which are about 3.5 mm. long and cut into the main body of the flowers. The leaves vary in length from 29 mm. to 12 mm. and are tear drop shaped. The brush marks on both the large roses and leaves travel lengthwise and seem to have been made by a 1/4 inch brush. The stems are long and quite thin (1 mm.). The thickness of the sherds vary with an average of about 4.0 mm. The inside rim diameter of the cup is 97 mm. The diameter of the saucer is 153.4 mm or about 6 inches. There is a maroon line (10.DR-PR-418) on the inside border of the cup's rim and an identical line, 2 mm. thick, on the inside of the saucer.

Thirty-seven sherds (A-60) of a cup and saucer combination were collected. Twenty-six of the cup sherds have been reconstructed (Plate 11b). They have a combination hand painted and stamped floral design upon them. The decorative pattern is a combination of small violet (5.0P 2/4) and large maroon (5.0R 3/8) flowers with large violet (5.)P 3/4) stems. The green leaves are tear drop shaped with the pointed ends attached to the stems. The large maroon flowers appear, from a side view, like partially opened roses. These flowers, because of the painting technique are not one solid color. The lighter shaded regions are a pinkish maroon (10.0RPR 5/8). Both the green leaves and roses seem to have been painted along the same lines as those in artifact A-70 which suggests both artifacts were produced by the same manufacturer. Both the violet leaves and the violet flowers have been stamped upon the sherds. The leaves have been stamped along the outside border of the rim with their base portions attached to a maroon

rim line (10.OR-PR 5/8) which also travels along the outside rim. These leaves appear like hanging bunches of grapes with the widest part near the base. The violet flowers have the shape of buttercups and are about 13 mm. in diameter. The flowers have a white spot in the center surrounded by a band 2 mm. thick which in turn is surrounded by another band of six connected petals. These flowers were stamped in bunches, very often overlapping one another, on either side of the one seemingly continuous stem which encircles the cup about midway. Painted on the inside rim of the cup is another rim line, similar to the one on the outside. There is a viclet stem with three green leaves painted on the inside bottom of the cup. The thickness of the sherds vary according to their position on the cup with an average thickness of 4.0 mm. The depth of the cup is 72 mm. and the inside rim diameter is 92 mm. Approximately 70% of the cup has been restored. There is a 2.5 mm. rim line on the inside of the saucer. This line is maroon (10.OR-PR 5/8) in color. The diameter of the saucer is 152.4 mm. or approximately 6 inches.

(2) Pearlware with a Transparent Glaze:

Three sherds (A-61) of a cup and saucer combination are white and undecorated. The average thickness of the cup is 5.0 mm. and the inside rim diameter is 94 mm; the diameter of the saucer is 152.mm.

C. SAUCERS:

(1) Earthenware with a Transparent Glaze:

Four sherds (A-54) of a saucer have a stamped floral design around the inside border (Plate 11c). The decorative pattern consists of a turquoise (10.0G-BG 5/4) double rim line, both lines being 15 mm. apart with a continuous line of lavender (5.0P 5/4) flowers between the. Each flower has four petals placed so that the flowers look like crosses. Both the length and width of the flowers is 12.5 mm. The flowers have a lavender spot as a center. Between the centers and the petals is a white band. The petals are more or less heart shaped. The flowers were stamped with the horizontal petals touching on their lateral borders and occasionally overlapping. The average thickness of the sherds if 3.5 mm. but there is much variation according to the position of the sherds in the saucer. The diameter of the saucer is 152.4 mm. or approximately 6 inches.

Sixty sherds (A-66) of a deep saucer (36 mm. deep) with a stamped ornamental design has been restored by fitting together 51 pieces (Plate 12A). There is a two mm. thick rim line on the inside of the saucer three millimieters from the top of the rim. This line is deep maroon (10.0R-PR 4/8) and just below it (5 mm. down) there is a continuous band of stamped blue (5.0PB 4/8) figures which are over-all triangular in shape with the base toward the rim of the saucer. Each has a spearhead-like point with two outward curving branches on either side of the center line. The pattern on the bases of these figures is a scroll-like design consisting of two horizontal "S's" with their top sections connected. On the bottom of the saucer is a circular band pressed into the paste. The average thickness of the sherds is 4.0 mm. The diameter of the saucer is 152.4 mm. or about 6 inches.

One sherd (A-62) of an undecorated white saucer is 6 mm. thick. The sherd is 66 mm. long and 45 mm. wide. The diameter of the saucer is 152.4 mm.

One sherd (A-74) of an undecorated white saucer, has an average thickness of 5.0 mm. This sherd is from the bottom of the saucer, so it was impossible to calculate the diamter.

(2) Earthenware with a Cobalt Blue Glaze:

Four restored sherds (A-55) from a saucer have a blue transfer design around the border (Plate 12B). The pattern is a series of "zig-zag" lines beginning at the rim of the saucer. The design consists of alternating royal blue (5.0PB 2.5/6) and light blue (5.0PB 5/6) lines 15. mm. thick. The sherds themselves vary in thickness and have an average of about 3.0 mm. The diameter is 152.4 mm. or about 6 inches.

Fifteen sherds (A-50) have been reconstructed into a deep saucer with a dark blue floral design. A portion of the pattern occupies the center of the saucer, while the rest forms a discontinuous based around the insideedge (Plate 12C). The central design consists of a large rose, three small flowers with five petals and circular centers, various leaves stems and tendrils, and two scroll-like elements. The discontinuous band consists of three sets of two designs: (1) two large roses with leaves and stems, and (2) a frame of two inward-curving scroll-like elements out of which projects two stems baring leaves and, on the right stem, a five petaled flower (like those described above) and, on the left stem, a partially closed flower; in addition, a second five petaled flower is centered between the two scroll-like elements. The trade mark "Java" is printed on the base of the saucer. This mark was used by Charles Meigh A. Son, (Ltd.) (1851-1860). (MacDonald-Taylor 1962: p. 245). The saucer is 153 mm. in diameter and 33 mm. deep.

(3) Pearlware with a Cobalt Blue Glaze:

Eleven saucer sherds (A-56) have a blue (5.oPB 3.5/8) transfer print (Plate 13A). The design is a combination of three different types of flowers on a number of vines. Five of the sherds have been restored. The flowers and most of the leaves are line drawings. Some of the leaves are shaded or solid line. One type of flower resembles a daisy with eight petals; another resembles a buttercup with five petals. The third type of flower, which seems to be a vine flower has a center that is similar to a sun with eleven rays extending from its circumference. The outer edge of the flower (it has no petals) is basically ellipsoid in shape with eight peaks. The leaves are fan-shaped with the widest portion connected with the vine. The vine also has a number of tendrils curling outward. The entire pattern has a smudged or smeared appearance. An average thickness of the sherds is 5.0 mm. The diameter of the saucer is 152.4 mm.

D. Plates:

(1) Earthenware with a Transparent Glaze:

Thirty-nine plate sherds (A-72) are decorated with blue transfer floral print (Plate 13B). Thirty-eight of the sherds have been reconstructed. The floral design has two shades of blue, a royal blue (5.OPB 4/6) and a lighter blue (5.OPB 6/4). There are about nine roses along the border of the plate 16 mm. down from the rim. The flowers are approximately 29 mm. in diameter. A great number of variously shaped flowers and leaves surround these roses. A band that resembles a snakeskin scale pattern runs above the roses right along the rim of the plate. In the middle section of the plate is another pattern with one large flower resembling a carnation. Another rose may likewise extend from the other side of the center flower but that part of the plate is missing. A number of smaller flowers and a variety of leaves fill in the remainder of the center designs. The average thickness of the sherds is 6.0 mm., but varies greatly from center to rim as one approaches the rim. The diameter of the plate is 254 mm. or 10 inches. About 70% of the plate has been restored.

The stamp "Copeland" appears on the back of the plate indicating its manufacture by W.T. Copeland of England. Copeland operated a Spode Work at Stoke-on-Trent from 1847 to the present day. "The firm was Copeland and Garrett from 1833 to 1847, and then Copeland, late Spode or W.T. Copeland and Sones" (Boger 1971:80). It would seem that from the stamp on the back of the plate that this artifact was manufactured sometime between 1947 and 1967.

Three sherds of a thick (5 mm.) white undecorated plate (A-68) have a diameter of 222.2 mm. or about 8 3/4 inches.

E. Bowls and/or Vases:

(1) Earthenware with a Transparent Glaze:

One sherd (A-53) of a large bowl is undecorated and the glaze brings out the color of the plate which is straw yellow (5.0Y 8/6). The sherd is 62 mm. wide, 37 long, and 6.0 mm. thick. The inside diameter is 260 mm. or about 10 1/4 inches. It was probably a mixing bowl.

(2) Earthenware with a Cobalt Blue Glaze:

One sherd (A-57) 40 mm. wide, 40 mm. long, and 4.0 mm. thick is part of a small bowl or vase with a royal blue (5.0PB 2.5/6) transfer print upon it (Plate 13c). The lighter shades are a powder blue (5.0PB 6/8). The design itself is quite intricate and seems to be oriental in nature. The main part of the floral design appears to be a partially opened lotus flower. Two smaller unidentifiable flowers are on either side of it and a form of scroll work which might represent water forms the background. The inside diamter of the bowl is 122.5 mm. or about 4 3/4 inches.

F. Bean Crock

Twenty-five sherds (A-71) are from what appears to be some sort of bean crock. Twelve sherds have been reconstructed (Plate 14A). The stoneware pot has a dark brown (5.0YR 2/2) underglaze and a transparent overglaze. There are no decorations on the crock, however, there is the number "3" pressed into the paste on the bottom. This may indicate the manufacturer's sizing number because there would probably be similar pots only of different sizes and volumes. The average thickness of the sherds is 7.0 mm. No diameter measurement was available because there were no rim sherds. A small portion of a handle 10 mm. thick was among the sherds.

G. Miscellaneous Sherds:

(1) Earthenware with a Transparent Glaze:

One small sherd (A-77) 17 mm. x 8 mm. x 4 mm. of earthenware has one small portion of a black line (.5 mm. thick) which is either hand painted or stamped.

A second small sherd (A-76) 16 mm. x 10 mm. x 3 mm. is from an undecorated white earthenware, while a third small sherd (A-75) of the same type measures.

(2) Pearlware with a Transparent Glaze:

Seven sherds (A-65), two of which have been reconstructed, are white, undecorated pearlware. The sherds which probably form pieces of a saucer have an average thickness of 3.0 mm.

(3) Ironstone:

One sherd (A-52) 37 mm. x 40 mm. x 4 mm. is from a white ironstone vessle probably a plate or saucer. British royal coat of arms and the words IRONSTONE CHINA, J & G MEAKIN stamped in navy blue (5.OB 2/2) on the underglaze (Plate 14b). It was manufactured by J & G MEAKIN (Ltd.) who started the Eagle Pottery and Eastwood Works at Hanley in the Staffordshire district in 1851 (Boger 1971:217). This sherd can be dated only as post 1851.

(4) Stoneware:

One undecorated sherd (A-173) 36 mm. x 32.5 mm. x 5.0 mm. of stoneware, is badly burned. However, there seems to be some evidence of a salt glaze on it. This item may have been part of a pot or crock.

Class and Type	Artifact Number	No. of Sherds	Length	Width	Average Thickness	Inside Diameter	Location	Square and Level
A. Cups								
1) Earthenware w/a Transparent Glaze	A-58	14	-	-	4.0	83.0	-	A11-I and II
	A-59	7	-	-	4.0	93.0	-	A11-I and II B11-I and II
	A-67	12	-	-	4.0	94.0	-	A11-I and II B11-I
	A-70	*10	-	-	4.0	97.0	-	A11-I and II, A13-I B11-I, C10-I
	A-60	*37	72.0	-	4.0	92.0	-	A11-I, B11-I and II Hearth C11-I
	A-63	1	49.0	44.0	6.0	93.0	-	A11-I
	A-64	5	-	-	4.0	-	-	A11-I, B11-I
	A-69	26	-	-	3.5	94.0	-	A10-1, B10-I
2) Pearlwave w/a transparent glaze	A-61	* 3	-	-	5.0	94.0	-	A11-I, AA11-I
B. Saucers								
1) Earthenware w/a transparent Glaze	A-54	4	-	-	3.5	152.4	-	A11-I, A13-I B11-II
	A-66	60	-	-	4.0	152.4	-	A11-I and II B11-I and II,C12-I
	A-70	*10	-	-	4.0	152.4	-	A11-I and II,A13-I B11-I, C10-I
	A-60	*37	-	-	4.0	152.4	-	Hearth A11-I, B11-I and II, C11-I
	A-62	1	66.0	45.0	6.0	152.4	-	A11-II
	A-74	1	-	-	5.0	-	-	B11-I
2) Earthenware w/a cobalt blue glaze	A-55	4	-	-	3.0	152.4	-	A11-I, AA11-I
		15	-	-	4.0	148.0	-	-

Class and Type	Artifact Number	No. of Sherds	Length	Width	Average Thickness	Inside Diameter	Location	Square and Level
3) Pearlware w/a transparent glaze	A-61	* 3	-	-	5.0	152.4	-	A11-I, AA11-I
4) Pearlware w/a Cobalt blue glaze	A-56	11	-	-	5.0	152.4	-	A11-I and II, B11-I AA11-I
C. Plates								
1) Earthenware w/a transparent glaze	A-72	39	-	-	6.0	254.0	-	A11-I, A13-I
	A-68	3	-	-	5.0	222.2	-	A11-I, AA11-I
D. Bowls and Vases								
1) Earthenware w/a transparent glaze	A-53	1	37.0	62.0	6.0	260.0	-	A11-I
2) Earthenware w/a transparent glaze	A-57	1	40.0	40.0	4.0	122.5	-	A11-I
E. Bean Pot?	A-71	25	-	-	7.0	-	-	A11-I and II, A13-I B11-I and II
F. Miscellaneous Sherds								
1) Earthenware w/a transparent glaze	A-77	1	17.0	8.0	4.0	-	-	A11-II
	A-76	1	16.0	10.0	3.0	-	-	A11-II
	A-75	1	18.0	14.0	3.0	-	-	A11-I
2) Pearlware w/a transparent glaze	A-65	7	-	-	3.0	-	-	A11-I
3) Ironstone	A-52	1	37.0	40.0	4.0	-	82 cm NW of A11 39 cm NE of A12 92 cm (b) C12	A11-I
4) Stoneware	A-173	1	36.0	32.5	5.0	-	-	-

* Sherds are for

III. METAL ITEMS

A. Cutlery:

(1) Large Spoon Handle

This handle (A-177) is made of plated iron. The maker's stamp cannot be located due to heavy corrosion. It measures 133.0 x 25.0 x 1.0 mm.

(2) Table Spoon:

Although broken into two pieces, the table spoon (A-89) is complete (Plate 14c). Made of plated iron, the handle is joined to the bowl by a single rivet. The location of the maker's stamp cannot be found due to heavy corrosion. The specimen is 150.0 x 32.5 x 1.0 mm. thick.

(3) Cutlery Handle:

This specimen (A-96) is also made of plate iron (Plate 15A). On the upper surface, the handle is inscribed "CSJE" or "COUE". Excessive corrosion has left the original inscription almost completely illegible. The specimen is 67.2 x 18.0 x 1.0 mm. thick.

B. Iron Basin:

The basin (A-124) is in poor condition and presently is constituted of many fragments. Although badly corroded, the approximate diameter of the base is approximately 130.0 mm. while the approximate diameter of the rim is 292.0 mm. or 11 3/4 inches.

C. Iron Cans:

(1) Partial Iron Cans - Flattened:

Four specimens (A-103, A-132, A-217, and A-268) are flat and appear to have been originally round (Plate). One can (A-103 has the top perforated by small nail holes. Thickness of the cans range from .5 mm. to 1.0 mm. The diameter of A-103 and A-268 are 44.0 mm. and 88 mm. respectively.

(2) Partial "tinned" Iron Cans - Flattened:

The body fragments of two cans (A-180 and A-218) have been altered, making impossible to calculate their diameters.

(3) Round Iron Can Edns:

Twenty-seven end fragments (A-134, A-149, A-155 (Plate 15c), A-158, A-159, A-160, A189, A-194, A-216, A-109 and A-157) were recorded. The thicknesses of the fragments vary from 0.5 to 1.0 mm. Some of the ends are complete enough to determine the diameter of the cans. Calculated diamters are: A-134, 78.0 mm.; A-149, 103.5 mm.; A-155, 50.0 mm.; A-158, 93.0 mm.; A-159 94.0 mm.; A-160, 70.0 mm.; A-189, 39.0.; A-194, 78.0 mm.; and A-216, 48.0 mm.

(4) Round "tinned" Iron Can Ends:

Four can ends (A-127, A-219 (Plate 15 D), A-154, and A-195) have thicknesses which range from .5 mm. to 1.0 mm. The calculated diameters are: A-127, 87.5 mm.; A-154, 88.0 mm.; and A-219, 42.0 mm.

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Location	Square and Level
A. Cutlery							
1) Large Spoon Handle	A-177	133.0	25.0	1.0	-	-,	A11-II
B. Table Spoon	A-89	150.0	32.5	1.0	-	265 cm NW of A11 195 cm NE of A12 75 cm (b) C12	A11-I
C. Cutlery Handle	A-96	67.2	18.0	1.0	-	185 cm NW of A11 95 cm NE of A12 83 cm (b) C12	A11-I
D. Possible Iron Basin	A-124	-	-	-	130.0 (base) 292.0 (rim)	NW corner	C11-I
E. Iron Cans							
1) Partial Iron Cans Flattened	A-103	-	-	1.0	44.0	-	A11-I
	A-132	-	-	1.0	-	110 cm N of B11 20 cm W of B11 N. storage Pit	B11-II
	A-217	75.0	-	0.5	-	-	B13-I
	A-268	116.0+	-	0.5	(88.0) Approx.	-	B13-I
2) Partial "tinned" Iron Cans- Flattened	A-180	-	-	1.0	-	-	A11-II
	A-218	84.0	-	1.0	-	-	C11-I
3) Round Iron Ends	A-134	-	-	1.0	78.0	289 cm NW of A11 326 cm NE of A12 67 cm (b) C12	B11-I
	A-149	-	-	0.6	103.5	177 cm NW of A11 256 cm NE of A12	B11-II

D. Lead Foil:

Seventy-seven fragments of crumpled lead foil (A-206 plate 16A), A-179, A-199, A-211, A-104, A-267, A-167, A-141, and A-169) were recovered from the excavation (Plate). They occur in two thicknesses, 0.3 mm. and 0.5 mm. Larger fragments have evidence of tin soldering on their borders. White (1969) offers an explanation in a quote from the Hudson's Bay Company Librarian, Hudson's Bay House, Winnipeg in a letter dated January 24, 1969. "We used lead foil-lined tea boxes in the 1870's, but we do not know the size of the boxes" (Elliott 1971:229-230).

IV. GLASS:

121 small sherds of glass of varying thickness and color were found on the Cabin A site developing a typology was rather difficult. Since no entire or large portions of vessels were uncovered. The typology that is used is based on general morphological attributes of the indivddual sherds. Color is used only as a secondary source of categorization because it is irrelevant to a "form-function" hyphotheses.

Out of the fourteen original morphological attributes listed, only ten were exhibited by the artifacts: four rim sherds; one rim and neck sherd; one rim, neck, and shoulder sherd; one neck and shoulder sherd; six body and base sherds; forty-three melted or fire-cracked sherds; and fifty-eight unidentifiable sherds.

Using the Munsell color chart, thirteen different colors were found over fifty-three sherds. Sixty-eight sherds (or fifty-six percent) were clear glass.

To obtain the specific types of vessels from the artifacts, all those sherds that could be given some kind of diameter measurement, whether taken from the rim, neck, body, or base, were measured and typed accordingly. The three exceptions are A-288, A-240, and A-259. A-228 and A-240 were typed according to their thicknesses, and A-259 was typed because it has a portion of a raised inscription upon it.

The glass items are scattered over a number of functional categories and divisions (see Medicinal/Hygiene, Recreation, Multiple Adaptations).

Three add (4)-0 110

A. Jars:

One sherd (A-258) of a clear glass jar is constituted of a neck, shoulder, and body fragments. The thickness of the glass is 2.0 mm. The shoulder and upper portion of the body is raised from the main body of the jar. The outside diameter of the upper body portion is 67 mm. Although the glass is quite thin, it may have been some sort of preserve jar.

B. Bowls:

One rim sherd of a glass bowl (A-82) has an inside diameter of 149.0 mm. The glass is 6.0 mm. thick, is clean, and the rim seems to be irregularly shaped as though it had been cut into a design of some sort.

Two clean sherds (A-83) of the rim of what might have been a sugar bowl are 4.0 mm. thick. A column design border extends 21.0 mm. down from the top of the rim (Plate 16b). The inside diameter of the rim is 77.0 mm. or about 3 inches.

C. Miseellaneous Glass

Amber (5.0YR 4/8) six sherds range in size from 14.5+ mm. to 43.5+ mm. long, from 5.0+ to 12.5+ mm. wide, and from 2.5 mm. to 3.0 mm. thick. A body sherd of transparent glass was the only sherd from A-87 which was identifiable.

Nile Green (5.0 YR 7/4) five sherd range is size from 7.0+ mm. to 19.2+ mm. long, 5.0+ mm. to 17.2+ mm. wide, and 1.2 mm. to 3.0 mm. thick. None of the translucent glass sherds was identifiable.

Nile Green (5.0GY 6/4) five sherds range in size from 16.0+ mm. to 41.5+ mm. long, 13.8+ mm. to 21.7+ mm. wide, and 1.5 mm. to 2.5 mm. thick. None of the transparent glass sherds was identifiable.

A dark brown olive (5.0Y 5/6) one body sherd of transparant glass measures 47.5+ mm. long, 25.0+ mm. wide, and 4.0 mm. thick.

A very light green (5.0G 8/2) six sherds range is size from 10+ mm. to 29+ mm. long, 4.0+ mm. to 27.0+ mm. wide, and 1.5 mm. to 4.0 mm. thick. Only one sherd (A-251), a body and base fragment of transparent glass, was identifiable.

A light green (5.0G 8/6) twelve sherds range in size from 15.5+ mm. to 49.5+ mm. long, 7.0+ mm. to 26.0+ mm. wide, and 1.4 mm. to 20.0 mm. thick. Five of the sherds were melted or fire-cracked. The only identifiable sherd was a body and boss fragment of transparent glass.

Turquoise (5.0866/6) four sherds range in size from 19.0+ mm. to 30.0+ mm. long, 13.0+ mm. to 21.0+ mm. wide, and 3.0 mm. to 4.0 mm. thick. One of the sherds, a body and base fragment of transparent glass was the only one identifiable.

Royal blue (5.)PB 3/10) one body and base sherd of transparent glass measures 25.0+ mm. long, 21.5+ mm. wide, and 6.5+ mm. thick.

Navy blue (5.)PB 5/8 three sherds of transparent glass, range in size from 19.0+ mm. to 26.0+ mm. long, 6.0+ mm. to 12.0+ mm. wide, and 3.0 mm. to 3.5 mm. thick. Of the 3 sherds only one was identifiable - a body and base sherd.

Neutral white (9/10) one unidentifiable sherd of transparent glass measures 10.5 + mm. long, 7.0+ mm. wide, and 1.0 mm. thick.

Clear glass sixty two sherd ranging in size from 5.5+ mm. to 44.0+ mm long 3.0+ mm. to 40.0+ mm. wide, and 1.0 mm. to 15.0 mm. thick. Thirty-eight of the sherds were either melted or fire-cracked. Thirty-four of these were translucent because of the heat applied to them. The rest of the sherds which are transparent glass were not identifiable.

APPENDIX B: TRANSPORTATION

A. Iron Horse Shoe:

A broken horseshoe (A-168) was recovered in excavation (Plate 16C). Four 6.0 mm. nail holes are found along the outer edge of the shoe. The shoe appears to have broken perpendicularly to the distal nail hole on one of the sides. The specimen measures 115.0 mm. in length, 19.0 mm. in width and 7.5 mm. in thickness.

B. Iron Horse Shoe Nails:

Six horse shoe nails (A-102 (Plate 16D), A-106, A-120, A-136, A-153, and A-190), in various stages of deterioration, were recorded. They vary in length from 39.5 mm. to 57.3 mm. The shanks are at least 1.0 mm. or more wider than thick. Common shank size is 3.0 mm. or 5.0 mm.

C. Iron Spreader element or strap fastener:

The sole specimen (A-123) is incomplete (Plate 17A). The artifact has three cast holes. The end hole is rectangular; the hole adjacent is half moon or crescent shaped while the last is circular. The upper part of the circular hole has a cast shank measuring 6.5 mm. in diameter, possibly for the attachment of a leather or metal loop. Elliot 1971:182) cites Downs & Klassen (1969) in suggesting that this type of artifact is either part of a spreader rig on a team harness or is used for hanging brass ornaments on a team harness. The specimen measures 82.0 x 38.0 x 9.9 mm.

D. Wagon Box Brace:

Both ends of the specimen (A-193) are flattened into a diamond shape and pierced by a hole (7.5 mm. in diameter). The brace measures 235 x 14 mm.

E. Lead Seal:

A united States customs seal (A-208) was recovered. Two apertures run parallel to the face of the seal to allow a cord to pass through. Both sides of the seal have a stamped legend: the observe reads "U.S./-USTOM/H-" surrounded by a circle, to reverse reads "IN/BOND/-S.O. (or S.C.)" and is also surrounded by a circle. Part of the seal has been cut away. (Plate 17B).

F. Possible Lead Seal:

One specimen (A-172) was recovered. A small round hole, probably made by a nail, runs partly thorough the center of the obverse face of the seal. One end has been cut or snipped off, giving the seal a three-quarter moon shape. Small knife or chisel marks are found on the face along the cut edge.

SUMMARY OF METRIC AND SPATIAL INFORMATION:

Class and Type	Artifact Number	Length in cms.	Width in cms.	Thickness in cms.	Diameter in cms.	Locations in cms.	Square and Level
Iron Horse Shoe	-	115.0	19.0	7.5	-	-	A11-I
Horseshoe Nails	A-102	57.3	5.0	3.0	-	-	A11-I
	A-106	39.5	4.0	3.0	-	-	A11-II
	A-120	55.0 bent	5.0	3.0	-	146 N of B11 B11 N of storage Pit	B11-II
	A-136	head only			-	-	A11-I
	A-153	43.0	5.0	2.5	-	-	A11-I
	A-190	57.0	5.0	3.5	-	-	B11-I
Wagon Book Brace	A-193	279.4 (Flat ends)	24.0	5.0	13.5 (Center bar) 7.0 (end holes)	-	B11-I

APPENDIX C : CLOTHING

A. Brass Buckle:

The brass buckle (A-204) measures 26.0 x 21.0 mm. x 1.5 mm. (Plate 17D), Elliott (1971) describes similarly styled buckles as being used on overall work clothing or suspenders.

B. Hook and Eye Fasteners:

Two hooks and one eye (A-93, A-94, and A-147) were recovered in excavations (Plates 28 A,B). They are manufactured of brass and have two small loops for attachment to a garment by thread (H.G. Smith 1960:139). The same thickness of brass wire (1.0 mm.) is used in all three specimens.

C. Thread:

The single 10.0 mm. long strand of white thread (A-131) appears to be made of cotton.

D. Fabric:

Two fabric samples (A99 and A181) managed to survive in the archaeological record. A small badly decomposed woven fabric appears to be black cotton. The sample is 27.0 mm. long and 19.5 mm. wide. The second specimen is badly decomposed dark green cavas. It is folded in half with randomly punched holes along the fold. It measures 116.0 mm. in length, 89.0 mm. in width and .5 mm. in thickness.

A. BUTTONS: Sixteen button types are represented in the assemblage.

TYPE 1: (Type 23 in Noel Hume 1970:91)

"China" buttons of this type are generally made of white porcelain with convex obverse and reverse. Four holes, set in a concave depression (present on obverse only), pierce each button. This kind of button was formerly used on men's and boy's shirts and girls' and women's shirt waists and underclothing. The usual size is 11 mm. in diameter and 2.5 -4.0 mm. in thickness. Such buttons are not datable (Miller 1960:68).

Twelve specimens fall within this type:

Variety A is a plain button. Eight buttons of this type are represented: A-16a, A-16b, A-16c, A-16d, A-17, A-18, A-22, A-29. Diameters range from 10.0-11.0 mm. thicknesses from 3.0-3.5 mm.

Variety B has a pattern of ray-like identations radiating outwards from the edge of the concave depression on the obverse (Plate 18a). One specimen; A-12d, measures 11.0 x 3.5 mm.

Variety C has two small patches on the single specimen (A-19) indicating that a dark orange ring was painted around the outside edge of the obverse. The specimen measures 15.5 x 4.0 mm.

Variety D has a block pattern sequence of eleven parallel lines on the obverse of a figure resembling a Roman numeral X followed by a dot. Two specimens; A-24 and A-26, measure 11.0 x 3.5 mm.

TYPE 2: (Type 20 in Noel Hume 1970:91)

This type of button is made of bone and characterized by a concave obverse and convex reverse. A pressed ring encircles the four holes on the obverse. A pressed ring encircles the four holes on the obverse. "Buttons of this material have always been cheap and were usually made from waste or scrap bone. All specimens measure 17 mm. in diameter and are pierced with either four or five holes (Miller 1960:69)." Dating for these buttons places them between 1837 and 1865 (Noel Hume 1970:90). These specimens were recovered:

Variety A includes 2 specimens (A13a and 13b) with a standard description. Two specimens: A-13a & b. Both measure 17.0 x 3.0 mm. (Plate 18B)

Variety B has a dented surface and appears like corroded iron which has been cleaned the specimen (A-28) measures 17.8 x 2.0 mm.

TYPE 3: (Type 18 in Hoel Hume 1970:91)

These brass buttons have a slightly convex obverse and slightly concave reverse. On the reverse is found a well soldered eye without a foot. The reverse of these buttons are also stamped with the words "Superfine Quality". They were used by civilians and the military, as well as for Indian trade goods (Olsen 1963:552). Three specimens are represented in the sample dating between 1785 and 1800.

One specimen (A-12b) is 19.5 mm. in diameter and 1.5 mm. thick. The second specimen (A-14) is 23.0 mm. in diameter and 1.6 mm. thick. The third (A-15) specimen is 23.0 mm. in diameter and 1.5 mm. thick.

TYPE 4: (Type 7 in Noel Hume 1970:91)

This type of button is made of brass, with a slightly convex obverse and slightly concave reverse. The reverse is spun having a brass wire eye in a cast boss. The earliest dating for this button is 1760. These buttons were used by the military and civilians from about 1760 to the close of the American Revolution (1760-1785) (Olsen 1963:552).

One specimen (A-10) measuring 20.2 mm. in diameter and 1.0 mm. thick is represented in the sample.

TYPE 5: (Type 27 in Noel Hume 1970:91)

This type of brass button has a dome shaped obverse and a flat reverse with a wire eye (missing on this specimen). The United States Army insignia is present on the obverse while the reverse has a barely visible stamped legend reading "Extra Quality". Manufacture of this button, used by the U.S. Army, began around 1830 and it is currently still in production to the present. Large quantities of these buttons were manufactured from the time of the Mexican war through the American Civil War (Olsen 1963:552). One specimen (A-21) measuring 19.5 mm. x 7.0 mm. (greatest thickness) is represented in the sample (Plate 18D).

TYPE 6:

This button is made from two piece pressed steel with a convex reverse and concave obverse. A pattern is stamped on the front consisting of a ring of rays which are slanting clockwise from the center of the button. The button also has four holes for attachment. The single specimen (A-11) dates sometime after 1870, (Olsen 1963:554) and measures 16.6 x 2.0 mm. (Plate 19A).

TYPE 7:

This type is a flat button consisting of two pressed pieces of tin covered with fabric. The metal obverse of the button is actually concave yet the fabric makes it appear flat. There are two holes in the obverse of the button which are formed by a fabric covered tin bar which separate the one basic hole found on the reverse of the button. This type of button is not datable. Three specimens were found:

The first specimen (A-23) measures 15.5 x 2.0 mm. The fabric is missing on the bar of this button. The second specimen (A-27) measures 12.0 x 2.3 mm., and the third specimen (A-51) measures 14.5 x 2.0 mm. and is fragmented.

TYPE 8:

This type of button has a flat obverse and convex reverse containing a rivet. Two pressed pieces of iron are used to make the button. The center of the obverse is concave and has a woven pattern of lines extending from it. This type is much like a suspender button and is not datable. Two specimens were found. One specimen (A-12a) measures 13.8 mm. x 8.0 mm.; the second (A-20a) measures 13.0 mm. x 2.5 mm.

TYPE 9:

This type of button is formed from two pressed pieces of iron. The obverse has a concave center while the reverse has a convex center caused by a circular indentation. Writing appears on the obverse but is illegible due to corrosion. This button appears to be an overall button and is not datable. The single specimen (A-20b) measures 13.0 x 3.0 mm.

TYPE 10: (Type 22 in Noel Hume 1970:91)

This type is made from shell. The reverse is flat while the obverse has a sunken panel around the four holes. This button dates between 1837 and 1865 (Hume 1970:90). The specimen (A-20c) measures 7.5 x 3.0 mm.

TYPE 11:

One specimen (A-12c) is made of white porcelain with a convex obverse and reverse. The obverse has an ellipse shaped concavity containing two holes. The dimensions are 11.0 x 3.2 mm. (Plate 19b).

TYPE 12:

One specimen (A-12E) is made of white porcelain and iron. The obverse of the button is dome shaped while the flat reverse has an iron eye fastened to the porcelain. The dimensions are 10.5 x 6.0 mm.

TYPE 13:

One specimen (A-12f) is made of white and light blue (5.0B 5/10) porcelain. Both the obverse and reverse are convex. The obverse has a concavaty containing two holes. A light blue ring is found on the circumferance while an orange smudge (5.0yR 7/10) is present on the white porcelain. The dimensions are 16.0 x 6.2 mm. (Plate 19c).

TYPE 14:

One specimen (A-129) is made of dark brown to black (5.0Y 2/10) hard rubber or bakeolite. The button is die casted and flat with a sunken panel on the obverse containing four holes. The dimensions are 18.0 x 2.5 mm. (Plate 19d).

TYPE 15:

One specimen (A-25) is made of black porcelain and brass. It consists of a black porcelain dome shaped obverse connected by a brass toggle at the back and appears to be a shoe button. This button measures 8.5 mm. in diameter and 4.0 mm. thick. The brass toggle measures 4.0 mm. in diameter and 0.6 mm. in thickness (Plate 19E).

TYPE 16:

This type is a button made from two pieces of pressed iron with a flat reverse and a convex obverse. One hole for attachment is present in the center. One fragmented specimen (A-222) is represented in the sample measuring 16.5 x 2.5 mm.

DISCUSSION:

The buttons corresponding to South's typology (Noel Hume 1970) tend to be poor time makers. South bases his typology upon artifacts from the sites of Brunswick Town (1726-76, 1800-30) and Fort Fisher (1837-65) in the United States. Dates given for South's button types tend to be consistently earlier than comparable types in historic sites on the Saskatchewan River (Gertrude Nicks - Personal Communication). Most historic sites on the Saskatchewan River have been closely connected with the fur trade between the 1790's and the early 1800's. These excavated posts predate the DjOo 120 site. The hard rubber button was probably manufactured after 1851 as the Goodyear Company had patented the hard rubber process by that time (Elliot 1971:205).

SUMMARY OF METRIC AND SPATIAL INFORMATION:

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Location	Square and Level
A. Buttons							
1) Type B1	A-12d	-	-	3.5	11.0	-	A11-I
	A-16a	-	-	3.0	11.0	-	A11-I
	A-16b	-	-	3.2	10.5	-	A11-I
	A-16c	-	-	3.5	11.0	-	A11-I
	A-16d	-	-	3.2	11.0	-	A11-I
	A-17	-	-	3.0	11.0	196 cm NW of A11 254 cm NE of A12 117 cm (b) C12	A11-II
	A-18	-	-	3.5	11.0	207 cm NW of A11 208 cm NE of A12 119 cm (b) C12	A11-II
	A-19	-	-	4.0	15.5	166 cm NW of A11 227 cm NE of A12 107 cm (b) C12	A11-II
	A-24	-	-	3.2	11.0	-	A12-I
	A-29	-	-	3.0	10.0	-	C11-?
2) Type B2	A-13a	-	-	3.0	17.0	-	A11-I
	A-13b	-	-	3.0	17.0	-	A11-I
	A-28	-	-	2.0	17.8	195 cm NW of B12 188 NE of B13 58 cm (b) C12	B12-?
3) Type B3	A-12b	-	-	1.5	19.5	-	A11-I
	A-14	-	-	1.6	23.0	230 cm NE of A-11 165 cm SE of A12 87 cm (b) C12	B11-I
	A-15	-	-	1.5	23.0	121 cm NW of A11 120 cm NE of A12 86 cm (b) C12	B11-II
4) Type B4	A-10	-	-	1.0	20.2	-	A10-?
5) Type B5	A-21	-	-	7.0	19.5	218 cm NW of A11 274 cm NE of A12	B11-II

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Location	Square and Level
6) Type B6	A-11	-	-	2.0	16.6	190 cm NW of A11 111 cm NE of A12 93 cm (b) C12	A11-I
7) Type B7	A-23	-	-	2.0	15.5	169 cm NE of A11 160 cm SE of A12 98 cm (b) C12	A11-I
	A-27	-	-	2.3	12.0	40 cm NW of B11 200 cm NE of B12 112 cm (b) C12	B11-II
	A-51	-	-	2.0	14.5	185 cm NW of A11 95 cm NE of A12 83 cm (b) C12	A11-I
8) Type B8	A-12a	-	-	8.0	13.8	-	A11-I A11-II
	A-20a	-	-	2.5	13.0	-	
9) Type B9	A-20b	-	-	3.0	13.0	-	A11-II
10) Type B10	A-20c	-	-	3.0	7.5	-	A11-I
11) Type B11	A-12c	-	-	3.2	11.0	-	A11-I
12) Type B12	A-12e	-	-	6.0	10.5	-	A11-I
13) Type B13	A-12f	-	-	6.2	16.0	-	A11-I
14) Type B14	A-12g	-	-	2.5	18.0	-	
15) Type B15	A-25	-	-	4.0 (button) 0.6 (toggle)	8.5 (button) 4.0 (toggle)	130 cm NW of A11 140 cm NE of A12 90 cm (b) C12	A11-I
16) Type B16	A-222	-	-	2.5	16.5	-	A11-I
C. Large Tooth Comb	A-90	32.0	7.0	1.0	-	205 cm NW of A11 111 cm NE of A12 88 cm (b) C12	A11-I
D. Brass Buckle	A-204	26.0	21.0	1.5	-	-	B11-II

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Location	Square and Level
E. Stud	A-142	1	4.0 (teeth)	-	14.5	130 cm NW of A11 140 cm NE of A12 90 cm (b) C12	A11-I
F. Hook and Eye Fasteners	A-93	-	-	1.0 (wire)	-	40 cm NW of B11 200 cm NE of B12 112 cm (b) C12	B11-II
	A-94	-	-	1.0 (wire)	1	-	A11-I
	A-147	9.0	6.0	1.0 (wire)	-	-	B11-I
G. Thread	A-131	10.0	-	-		110 cm N of B11 20 cm W of B11 N storage Pit	B11-II
H. Fabric	A-99	27.0	19.5	-	-	-	A11-I
	A-181	116.0	89.0	0.5	-	-	A11-II

B. BEADS:

The beads (Plate 30 a & b) assemblaged from Cabin "A" were analyzed on the basis of manufacture, color, and size attributes. Beads in specific categories were further separated on the basis of specific modification and decoration. The total bead sample of all types in the assemblage is 2,684. Catalogue numbers and measurements are included in Table for Bead Typology.

Method of Manufacture:

Two basic methods of manufacture are reflected by the beads - drawn tubing and wire wound. The main manufacturers of these kind of beads were located in Amsterdam, Holland; Venice, Italy; and in Czechoslovakia (Vander Sleen 1967:261). Detailed accounts of manufacturing techniques are well documented in Vander Sleen (1967:1967), Woodward (1965), Kidd & Kidd (1970), and Karlins (1967:164).

Color:

All beads in the sample were given a hue and chrome number according to the Munsell Color Chart. This color assignment system not only enables grouping of specific beads of the same manufacture but also provides a comparative framework. Fourteen different color designations are represented in the sample .

Size:

In the spearation of drawn tubular beads, Conn (n.d.:1), suggests three metric categories: "Pony" beads which have an outside diameter of 3.0 mm. or greater. "Intermediate" beads which have an outside diameter between 2.0 mm. and 3.0 mm., and "Seed" beads which have an outside diameter

of less than 2.0 mm. In the sample are 2,675 drawn tubular beads which are rounded by reheating. The "Seed" size which numbered 2,255 included the greatest number of specimens, and represented 84.01 per cent of the total sample of beads, and 84.29 per cent of the total sample of "Seed" beads rounded by reheating. The number of "Intermediate" size beads totaled 419 specimens or 15.61 per cent of the total bead sample. Of the total sample of these beads 15.66 per cent are rounded by reheating. Of the "Pony" size beads, only one specimen is recorded.

Modification and Decoration:

The bead sample is further divided into groups based upon specific modification and decoration. Drawn tubular beads are separated into three groups: those which have ground facets on the outside edges (two incomplete specimens), those which were reheated to produce oval and round heads (2,675 specimens), and those "red" beads which have a white opaque core, known as "Coraline d'Allepo" beads (456 specimens) (Van der Sleen 1967:23-25, Nicks 1969:109-110). In addition, wound beads are sudivided according to shape (round or oval) and the presence of absence of applied decoration. In the sample, five wound beads are oval-undecorated, one is round-undecorated, and one is round with applied decoration. (See table for Bead Typology).

Discussion:

Beads were manufactured and used for a long time span and thereby are poor time markers. Woodward (1965:20) and Karklins (n.d.:7) suggest that "Cornaline d'Allepo" beads were manufactured before the 1800's but also in the early decades on the 19th century. The single wound bead with applied decoration is assigned by Kidd & Kidd (1970:86) to the class "w" beads which has a plan glass overlain design. R.S. Kidd (1970:187, Fig. 97) recovered the same type of bead from Fort George indicating that this type of bead is also a poor time marker with respect to the DjOo 120 site.

With respect to function, the tubular beads were most probably employed in the fine embroidery work. "Seed" size beads because of their minute aperatures required special jeweler's needles on very fine thread. Woodward (1965:11) suggests that sinew thread which is tough can be made very fine and the end of the thread can be made to serve as a needle to pick up the beads. In addition, the artifact assemblage contained a needle as well as fine thread; certainly both options were open to the Metis who occupied the site. The much larger wound beads were probably used in neclaces or other such ornamentation due to their attractiveness and their much higher price.

C. Large Bottles:

Two sherd (A-81) articulate and appear to belong to a former wine bottle (Plate 30D). Both sherds are nile green (5.0GY 6/4) and form part of the rim and neck of the bottle. The width of the rim is 7.0 mm.; the thickness of the rim (measured from the top of the rim to where it meets the neck) is 13.0 mm. The inside diameter of the rim is 18.0 mm. and the outside diameter is 31.0 mm.

Two sherds (A-233) of a fairly large bottle are turquoise (5.0BG 6/6) and one of them is a body and base fragment (Plate 30c). The thickness of the glass is about 4.0 and the outside diameter of the base is 53.5 mm. The base extends outward forming a lip before it articulates with the body. The height of the lip is 13.0 mm.

Therefore two body sherds (A-234) of a thick (5.5 mm.) large bottle which is olive green (5.0GY 5/6). The inside diameter of the bottle's body is 63.5 mm. and the outside diameter is 75 mm. This bottle may also have been a wine bottle.

D. Ornamental Glass:

Two sherds (A-228) are from a neck and shoulder of some type of ornament. The glass is 0.5 mm. thick and emerald green (5.0G 5/8). The inside diameter of the neck is 2.0 mm. Gold paint is still observable on the exterior and interior faces of the glass. The neck looks like it was constructed to hold a metal eye for fastening.

One sherd (A-240) is a shoulder of an ornament, perhaps a glass bead or a very small bottle. The glass is 0.5 mm. thick, rose colored (5.0R 6/8) and transparent.

E. Inscribed Glass:

One sherd (A-259) is the shoulder of a bottle or jar with the letter "MI" inscribed upon it. The letters are 9 mm. tall. The galss is 2.0 mm. thick and clear.

APPENDIX D: SHELTER

A. NAILS:

The nails recovered are generally in poor condition. Measurement of stock size is so variable among nails of the same type that this measurement proves useless in the analysis. The classification of nails and terminology follows that used in Technical Leaflet 48 "Nail Chronology" published by the American Association for State and Local History (Nelson, 1968). Five basic groups of nails are represented in the assemblage. Catalogue numbers and measurements for the nail specimens are included in appendices..

TYPE 1: Modern Machine Cut Common Nails

The nail heads tend to be uniformly convex on each side uniform in size, and square to rectangular depending upon nail style. This type of nails dates from the late 1830's to the present. As far as can be distinguished, all nails in the assemblage have the iron fibers running lengthwise which is indicative of a post 1840 date (Nelson, 1968: 209).

A. Nineteen specimens of machine cut common nails with shanks that are greater than 50 mm. in length are represented in the sample . The length of the shanks vary between 51.2 mm. to 79.0 mm. These measurements were highly variable due to corrosion while the widths varied from 4.0 mm. to 6.0 mm. and thickness varied from 2.0 mm. to 4.0 mm.

B. Seven machine cut common nails have shank lengths of less than 50 mm. Shank lengths varies from 26.2 mm. to 37.0 mm. Shank width varies from 2.4 mm. to 4.0 mm.; while thickness varies from 2.1 mm. to 3.0 mm.

C. Forty-two common machine cut nails have heads but their shanks are broken. A wide range of variation in dimension of the specimens of shanks is due to breakage and deterioration.

D. Twenty-eight machine cut nails shanks have their heads broken off.

TYPE 2: Lathe Nails

Six specimens of mahine cut nails with hand-made heads are recorded. Usually the heads are thin and flat (no facets) and eccentric to the shank. Shanks vary in length and width and often have a sharp point; a bulge under the head is often present. Nails of this type date from ca. 1790 to ca. 1810 (Nelson 1968:208).

TYPE 3:

Four specimens of common wire nails were recorded that have a history that begins in the 1850's and continues to the present (Nelson 1968:209). The lengths vary from 30.0 mm. to 36.0 mm., while the diameter of the shanks vary from 2.0 mm. to 6.0 mm.

TYPE 4:

A hand-wrought general purpose nail has a sharp point and a possible rose-head. The grain of iron runs lengthwise (Nelson 1968:208). This specimen measures 45.0 mm. in length, while the stock size measures 3.5 mm. x 4.2 mm.

Summary of Metric and Spatial Information:

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameter	Location	Square & Level
1. NAILS							
Type 1 - Modern Machine Cut							
Common Nails 1a.	A-102	50.8	4.6	3.0	-	-	A11-1
	A-106	56.2	5.5	3.3	-	-	A11-II
	A-106	51.2	4.0	3.0	-	-	A11-II
	A-111	55.0	4.0	3.5	-	Hearth	C11-I
	A-153	51.8	4.6	3.3	-	-	A11-I
	A-153	52.0	5.0	3.0	-	-	A11-I
	A-153	52.5	4.5	2.0	-	-	A11-I
	A-153	52.1	4.0	3.3	-	-	A11-1
	A-153	63.5	6.0	4.0	-	-	A11-I
	A-170	75.5	5.5	4.0	-	West Half	AA11-I
	A-170	69.2	5.5	3.5	-	West Half	AA11-I
	A-187	63.0	5.0	3.3	-	-	A12-I
	A-187	63.2	5.0	3.3	-	-	A12-1
	A-190	63.2	5.8	3.9	-	-	B11-I
	A-190	55.2	6.0	4.0	-	-	B11-I
	A-190	52.0	5.0	3.5	-	-	B11-I
	A-190	51.2 (bent)	4.0	4.0	-	-	B11-I
	A-203	79.0	5.5	3.9	-	-	B11-II
	A-203	53.2	5.0	3.3	-	-	B11-II
1b.	A-170	28.6	3.0	2.5	-	West Half	AA11-I
	A-170	37.0	4.0	2.3	-	West Half	AA11-I
	A-190	26.2	2.8	2.8	-	-	B11-I
	A-190	26.9	2.5	2.3	-	-	B11-I
	A-190	27.9	2.4	2.1	-	-	B11-I
	A-190	29.0	2.5	2.1	-	-	B11-I
	A-190	25.2	3.0	3.0	-	-	B11-I

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameter	Location	Square & Level
1c	A-102	-	-	-	(11 specimens)	-	A11-I
	A-106	-	-	-	(16 specimens)	-	A11-II
	A-111	-	-	-	(1 specimen)	Hearth	C11-I
	A-139	-	-	-	(1 specimen)	130 NW of A11 140 NE of A12 90 (b) C12	A11-I
	A-146	-	-	-	(1 specimen)	-	B11-I
	A-153	-	-	-	(3 specimens)	-	A11-I
	A-170	-	-	-	(2 specimens)	West Half	AA11-I
	A-178	-	-	-	(1 specimen)	-	A11-II
	A-187	-	-	-	(1 specimen)	-	A12-I
	A-190	-	-	-	(3 specimens)	-	B11-I
	A-203	-	-	-	(2 specimens)	-	B11-II
1d	A-102	-	-	-	(8 specimens)	-	A11-I
	A-106	-	-	-	(3 specimens)	-	A11-II
	A-111	-	-	-	(1 specimen)	Hearth	C11-I
	A-121	-	-	-	(1 specimen	146 cm N of B11 18-34 W of B11 N storage Pit	B11-II
	A-128	-	-	-	(1 specimen)	-	B11-II
	A-153	-	-	-	(3 specimens	-	A11-I
	A-170	-	-	-	(5 specimens)	West Half	AA11-I
	A-190	-	-	-	(5 specimens)	-	B11-I
	A-264	-	-	-	(1 specimen)	-	A11-III
Type 2 -Lath Nails	A-102	19.0	3.0	2.5	-	-	A11-I
	A-106	25.0	2.8	2.5	-	-	A11-II
	A-106	13.0	2.2	2.0	-	-	A11-II
	A-106	23.8	3.0	2.1	-	-	A11-II
	A-106	26.3	2.2	2.0	-	-	A11-II
	A-106	22.5	2.0	1.8	-	-	A11-II
Type 3 - Common Wire Nails	A-106	36.0	-	-	5.0	-	A11-II
	A-106	33.2	-	-	2.5	-	A11-II
	A-106	32.8	-	-	6.0	-	A11-II
	A-153	30.0	-	-	2.0	-	A11-I

BUTCHERED BISON BONE : DjOo-120

Vertebrae:

3	:	Cervical
2	:	Thoracic

Sternebrae: 1

Ribs:

1	:	Complete
2	:	Fragments

Scapulae:

4	:	Glenoid Fossa removed
2	:	Chopped off just above head end of spinous process
4	:	Infraspinous fossa and laterial border removed
1	:	With spinous process removed
1	:	With lateral border trimmed off
1	:	Pieces of lateral border and infraspinous process

Humerus:

1	:	Left, proximal end and epipheses missing
8	:	Left, distal ends (AX marks, on 5 of 8, from center of proximal end of Olecranon fossa).
7	:	Right distal ends: (AX marks 7.4 cm. from center of (proximal end of olecranon fossa, extend from posterior) (surface around onto the medial side).

Radius:

1	:	Left, proximal end
1	:	Left, distal end (all of shaft & proximal end missing)
1	:	Right, proximal end

APPENDIX E : TECHNOLOGY

Stone Artifacts:

The stone implements from the cabin floor and the east interior cache pit are difficult to classify as they have irregular outline and cross sectional forms (Plates 20 a-d; 21 & b). The tools are undoubtably a product of an ad hoc technology in which the producer(s) had not worked out in advance a system of variables by which they could control the form of the final artifact. Instead, both core and flake tools are made on fortuitously shaped pieces of material. The flaking of the specimens is uneven and lacks symmetry, suggesting that these implements do not represent a stone flaking tradition surviving from the prehistoric period.

With the exception of one utilized obsidian flake, the specimens are made from orthoquartzite (A-114, -117, -125B, -202, A-265), metaquartzite (A-125A), and argillite (A-105, -115, -182, and -266), materials which occur locally as cobbles in the Cypress Hills formation and in glacial drift deposits (see VONHOF 1965).

These tools are probably wide working implements that were used in the fleshing and butchering processes. Today, in the Calling Lake area of north central Alberta, beach cobbles are still smashed together and fortuitous pieces utilized for moose hide preparation by a few of the old time residents. The rationale for their use is that stone implements do not cut and damage a hide as would a steel knife. Wissler (1910) also notes this same rationale among the Blackfoot.

Wear patterns along the working edges are limited to two varieties. All speciments, whether core or flake implements, have at least one convex edge which exhibits small irregular spatulate flakes along one or both sides. The irregular spacing of these microflakes suggests that they were produced by a functional process such as wideworking rrather than by a deliberate technology such as edge sharpening. The angles of these edges vary considerably between specimens, as does the size of the implements. Two specimens (A-114 and -125A) exhibit lineal scratches on on the cortex of the implement faces directly in back of the working edge; this also suggests a scraper-plane functional hypothesis.

Ulna:

1 : Left, cut marks on medial side 4-5 cm. above semi-lunar notch

1 - Right, cut marks on lateral side

1 : Right

Innominates:

1 : Left, acetabulum

1 : Left, acetabulum with parts of ilium; ISCHIUM (Ishium showes gnawing)

1 : Left, acetabulum with parts of ilium & ischium (AX marks on ilium): (just before flaring)

1 : Left, broken acetabulum with parts of ilium & Ischium

1 : Right, almost complete

1 : Right, acetabulum

1 : Right, fragment of ilium

Femurs:

3 : Left, distal end

1 : Fragment of medial condyle and portion of shaft

Tibiae:

2 : Left, proximal ends & portion of shaft (AX marks on enterior) (Aspect 9.5 cm. distal of diaphyysical-epihysiseal union of) (Tibial crest).

1 : Left, proximal end & portion of shaft

4 : Right, proximal end & portion of shaft

1 : Distal end with major portion of shaft (cut marks on the) (anterior surface approximately at the end of tibial crest).

1 : Distal end with major portion of shaft:

1 : Shaft section popliteal surface

Metapodials: (Cannon Bone)

1 : Left, distal and with part of shaft

1 : Right, nearly complete (distal epihysis missing)

APPENDIX F: MEDICINAL/HYGIENE

A. Large Comb Tooth:

This specimen (A-90) is 32.0 x 7.0 x 1.0 mm. (Plate 28c) and made of hard rubber. Elliott (1971:205) cites G.H. Smith (1960b) who indicates that Goodyear patented the hard rubber process in 1851 and soon after hard rubber combs became common items in the Indian trade.

B. Small Medicine Bottles

A rim, neck, and shoulder sherd of what might be a medicine bottle (A-79) is a very light green (5.0G 8/2). The length of the neck is 12.0 mm., the thickness of the rim is 4.0 mm., the inside diameter of the rim is 9.0 mm., and the neck is 8.5 mm. The thickness of the glass in the neck and shoulder is 2.0 mm., and the rim has only a single lip. The bottle was probably corked (Plate 28d).

One rim sherd of a small bottle (A-242) is a very light green (5.0G 8/2) and may have been corked (Plate 28E). The bottle was a double lipped rim 11.0 mm. thick (measured from the top of the rim to the bottom of the lip). The inside diameter of the rim is 8.0 mm. and the outside diameter is 17.5 mm.

SUMMARY OF METRIC AND SPATIAL INFORMATION:

Class and Type	Artifact Number	No. of Sherds	Length	Width	Average Thickness	Inside Diameter	Location	Square and Level
Dolls	A-73	12	650 (head)	-	4.0	-	217 cm NW of A11 114 cm below C12 (head)	A11-I and II B11-I

SUMMARY OF METRIC AND SPATIAL INFORMATION:

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Locations	Square and Level
A. Detachable Stem Bowl Pipe	A-152	33.0 (bowl)	-	2.0 - 2.6 (bowl)	11.0 (Stem socket)	-	All-I
B. Pipe Bowl Fragments	A-100	-	-	-	Outside of bowl (24.0)		
			-	-	Inside of bowl (18.0)	Hearth	C11-I
	A-150	-	-	-	Outside of bowl (24.0) Inside of bowl (18.0)	-	All-I
C. Ornate Pipe	A-95	63.5	-	-	End opposite mouth piece (4.0)	-	All-I
D. Kaolin Pipe Stem Fragment	A-151	19.5	-	-	7.0	-	All-I

APPENDIX G : RECREATION

A. Dolls:

Twelve sherds of a white porcelain doll (A-73) were recovered. About 40% of the head was reconstructed using four sherds. The facial features were absent. Only the right side and rear portion of the head were found. The hair was painted on the top of the head as a circular cap and is a mixture of black and light blue (5.0 PB6/6). The head is about 65 mm. long. Portions of elbows and knees were also present. A small hand has found which is only 8 mm. wide. The head portion seems to be much larger than the rest of the body. This doll was probably imported from the Orient. The average thickness of the sherds is 4.0 mm.

B. Pipes:

(1) Detachable Stem Bowl Pipe:

"Detachable stem bowls have a stem socket apparently formed in much the same way as the bowl: a plug rammed into the soft clay before the pipe was removed from the mold. A 'smoke hole' is pierced through the septum which separates the bowl from the stem socket" (Humphrey 1969:23). Elliott (1971:209) cites Walker (1969) who indicates that these pipes were made in bipartite lead or wooden molds and were originally of middle European origin. By the middle of the 19th century they were being produced in the eastern United States.

One specimen (A-152) is made of "buff" colored clay and is unglazed. It has mold seams present on both the dorsal and ventral surface of the stem socket and the bowl. Most of the bowl on this specimen is missing (Plate 29b). The diameter of the stem socket is 11.0 mm. while the rim of the stem socket is 13.8 mm. in diameter. The height of the bowl is 33.0 mm. and its thickness varies from 2.0 mm. to 2.6 mm. The diameter of the bowl cannot be calculated.

(2) Pipe Bowl Fragments:

Two fragments of the same pipe (A-100 and A-150) are made of reddish brown clay which is unglazed (Plate 29a). The pipe bowl appears to be molded while the rim of the bowl has a raised lip. An incised line located halfway down the body encircles the bowl. This line was made after the pipe had been fired probably by the user. The outside diameter of the bowl is 24.0 mm. while the inside diameter is 18.0 mm.

(3) Ornate Pipe Stem:

The stem (A-95) appears to be carved from hard black clay and is quite brittle (Plate 29c). The mouth piece is ovoid to flat expanding into a round section of the stem containing eight incised rings 8.5 mm. in diameter. The end opposite the mouth piece tapers rapidly to a diameter of 4.0 mm. and is broken. The length of the specimen is 63.5 mm.

(4) Kaolin Pipe Stem Fragment:

This specimen (A-151) appears to be from a common single piece trade pipe. It is 19.5 mm. in length and 7.0 mm. in diameter. The 2.2 mm. diameter stem perforation is off center.

C. Mirrors:

One large sherd (A-229) of a mirror was found (Plate 29d). It measures 97.0+ mm. long, 53.0+ mm. wide, and 3.0 mm. thick. Most of the silvering on the back has deteriorated. The glass itself is light green (5.0 G8/6) and transparent.

APPENDIX H : MULTIPLE ADAPTATIONS CATEGORY

F. Iron Trade Knife:

This specimen (A-86) was manufactured by "Jukes Coulson Stokes & Co." in Sheffield, England. Although the knife is badly corroded the iron parts are almost entirely complete. The maker's name is stamped on the blade and is legible. Three 21.0 mm. long retaining pins are still present in the handle, spaced 14.0 mm. apart (Plate 31a).

Rusell (1967:180) states that the Jukes Coulson Stokes & Co. of Sheffied exported knives to North America in great numbers and that many were used in the fur trade.

G. Clasp Knife Handle:

The specimen (A-186) is made of wood and has three rivet holes for attachment to the knife. One hole is located 8.0 mm. from the distal end of the handle and is centered. The remaining two holes are 53.0 mm. and 75.0 mm. from the distal end and are located along the edge of the handle. The dorsal section of the handle is convex while the central section which attaches to the clasp knife is flat (Plate 31b).

H. Large Iron File Tip:

The distal end of the single specimen recorded (A-98) has been squared off. The file tip measures 73.5 mm. in length, 10.5 - 18.0 mm. in width and 5.0 mm. in thickness (Plate 31c).

I. Large Iron Staple:

This specimen (A-122) measures 150.0 mm. in length, and 5.0 mm. in diameter. One end is flattened to produce a broad flat point while the other end is broken (Plate 31d).

K. Headless Shank of Needle or Pin:

One specimen (A-110) was recovered in excavation. It measures 45.2 mm. in length, 1.0 mm. in diameter and is made of steel.

L. Brass Sewing Thimbles:

Both specimens are bent; however, one (A-92) has no perforation for use as an ornament (Plate 9c). It measures 19.0 mm. in length, and 17.0 mm in diameter. The other (A-91) has three perforations for ornamental use. It measures 19.5 mm. in length and 15.5 mm. in diameter.

M. Iron Wire:

Two small pieces of rusted iron wire were recovered in excavation. Both pieces are plain and bent. The first specimen (A-197a) measures 59.0 mm. in length and is 1.0 mm. in diameter. The second specimen (A-197b) measures 13.0 mm. in length and is 1.0 mm. in diameter.

N. Leather:

Two specimens (A-108, A-130) of weather hardened tanned leather are represented in the assemblage. The first (A-130) is a strap measuring 27.0 mm. by 19.0 mm. by 3.0 mm. with seven random perforations. The function of this item is unknown. The second (A-108) which is folded in half, appears to be a section of a belt (Plate 32A). There are awl perforations around the entire border for stitching. A slot is cut parallel to the strip to allow the tongue of a buckle to pass through. The measurements of this specimen are 85.0 mm. by 25.0 mm. by 3.0 mm.

O. Iron Strips:

1. Perforated:

Three iron strips with perforations were recovered in excavations. These strips are likely to have come from crates or trunks. One strip (A-110) measures 83.0 mm. in length, 16.0 mm. in width, and 1.5 mm. in thickness. It has two perforations 18.5 mm. apart made by a nail. The second (A-209a) measures 49.0 mm. in length, 23.0 mm. in width, and 1.0 mm. in thickness. This strip is broken along a line formed by two perforations 43.0 mm. apart. The third (A-209b) has three perforations 66.5 mm. apart and measures 200.00 mm. x 20.0 mm. x 1.5 mm.

2. Unperforated - Plain Iron:

Six specimens of unperforated metal strips are represented; thickness of the strips vary from .5 mm. to 1.5 mm.

3. Unperforated "Thinned" Iron:

One specimen (A-164) is represented which appears to be cut from a container (Plate 32b). It measures 107.0 mm. x 27.0 mm. x .5 mm.

P. Iron Sheet:

Two specimens are represented. Both are probably fragments of large iron containers. One specimen (A165) is in four pieces, and contains four perforations 46.0 mm. apart. It is 1.0 mm. in thickness. The second specimen (A-210) is folded but unperforated and measures 260.0 x 114.5 x 1.0 mm.

Q. Iron Scrap:

Seven tinned iron fragments varying in thickness from 0.5 mm. to 1.0 mm. were found. One hundred and three badly corroded iron fragments with an average thickness of 1.0 mm. were also excavated. These fragments may be remnants of iron cans or containers.

Multiple Adaptations:

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Locations	Square and Level
G. Iron Trade Knife	A-86	235.0	-	-	-	40 cm NW of B11 200 cm NE of B12 112 cm (b) C12	B11-II
Clasp Knife Handle	A-186	93.0	17.0	4.0	-	-	A11-II
Large Iron File Tip	A-98	73.5	10.5-18.0	5.0	-	64 cm NW of B11 160 cm NE of B12 101 cm (b) C12	B11-I
Large Iron Staple	A-122	150.0	-	-	5.0	190 cm NW of A11 111 cm NE of A12 93 cm (b) C12	A11-I
Headless Shank of Needle or Pin	A-110	45.2	-	-	1.0	-	A11-II
Brass Sewing Thimbles	A-91	19.5	-	-	15.0	136 cm NW of B12 233 cm NE of B13 40 cm (b) C12	C12-I
	A-92	19.0	-	-	17.0	188 cm NW of A11 97 cm NE of A12 93 cm (b) C12	A11-I
Iron Wire	A-197a	59.0+	-	-	1.0	-	B11-I
	A-197b	13.0+	-	-	1.0	-	B11-I
Leather	A-108	27.0	19.0	3.0	-	-	A11-II
	A-130	85.0	25.0	3.0	-	172 cm NW of A11 250 cm NE of A12 113 cm (b) C12	B11-II
H. Iron Strips 1) Perforated	A-110	83.0	16.0	1.5	-	-	A11-II
	A-209a	49.0	23.0	1.0	-	-	B11-II
	A-209b	200.0	20.0	1.5	-	-	B11-II

Artifact Class & Type	Artifact Number	Length	Width	Thickness	Diameters	Locations	Square and Level
2) Unperforated-Plain Iron	A-103	90.0	14.0	1.0	-	-	A11-I
	A-110	-	-	0.5-1.5	-	-	A11-II
	A-162	76.3 &90.0	24.0 &22.0	0.7-1.5 &0.7	-	-	A11-I
	A-163	91.0	13.0	1.5	-	-	A11-I
	A-188	156.0	19.0	1.5	-	-	A12-I
3) Unperforated-"tinned" iron sheet							
1) perforated	A-164	107.0	11.0-27.0	0.5	-	-	A11-I
2) unperforated	A-165	-	-	1.0	-	-	A11-I
	A-210	260.0	114.5	1.0	-	-	B11-II
I. Iron Scrap							
1) Iron	A-215	-	-	1.0	(10 fragments)	-	B13-I
	A-133	-	-	1.0	(10 fragments)	220 cm NW of A11 182 cm NE of A12 91 cm (b) C12	A12-I
	A-196	-	-	1.0	(4 fragments)	-	B11-I
	A-161	-	-	1.0	(13 fragments)	-	A11-I
	A-156	-	-	1.0	(2 fragments)	-	A11-I
	A-119	-	-	1.0	(50 fragments)	230 cm NW of A11 180 cm NE of A12 89 cm (b) C12	A12-I
2) "Tinned" Iron	A-129	-	-	1.0	(1 fragment)	-	B11-II
	A-212	-	-	1.0	(1 fragment)	-	B12-I
	A-113	-	-	1.0	(12 fragments)	Hearth	C11-I
	A-179	-	-	0.5	(1 fragment)	-	A11-II
	A-199	-	-	0.5	(2 fragments)	-	B11-I
	A-104	-	-	1.0	(2 fragments)	-	A11-I
	A-113	-	-	0.5	(2 fragments)	Hearth	C11-I
Unidentified Metal Object	A-200	18.0	11.5	8.0	-	-	B11-I

APPENDIX I : NO APPARENT ADAPTIVE VALUE

A. Stud:

The single small, flat, tin plated iron stud (A-142) measures 14.5 mm. in diameter and is .5 mm. thick. Two perpendicular teeth 4.0 mm. in length are located on opposite sides of the edge of the stud for attachment to wood, cloth, or leather. It was most probably used as a decorative piece. Although the stud is partially rusted, the small letters "AL" are still discernible on the edge of the face.

B. Unidentified Object:

This specimen (A-200) is a thin sheet of lead wrapped around a fragment of an iron rod. It measures 18.0 mm. in length, 11.5 mm. in width and 8.0 mm. in thickness (Plate 32c).

PART III : SPECIAL ANALYSES

Bead Typology, Metrics and Spatial Information:

1. Drawn Tubular Beads:

A. Modified - ground facets (6 facets)

Catalogue Number	Glass	Color	Hue, Value & Chroma	Provenience Square	Level	Location
DjOo 120/1	Translucent	Royal Blue	5.0PB 3/10	All	1	--
DjOo 120/221	Translucent	Royal Blue	5.0PB 3/10	All	1	--

Lot No.	Glass	Color	Hue, Value & Chroma	Seed	Intermediate	Pony	Square	Level	Location
120/4	Opaque	Rose	5.0R 7/4	344	51	--	All	11	--
"	Transparent	Rose	5.0R 6/6	5	--	--	"	"	--
"	Transparent	Maroon	5.0R 3/10	132	4	--	"	"	--
"	Translucent	Emerald Green	5.0G 5/4	191	26	--	"	"	--
"	paque	White	9/0 white neutral	74	6	--	"	"	--
"	paque	Ivory	5.0Y 7/6	62	--	--	"	"	--
"	paque	Lemon Yellow	5.0Y 8/6	28	--	--	"	"	--
"	paque	Clear	--	2	1	--	"	"	--
"	Transparent	Navy Blue	5.0PB 3/4	39	22	--	"	"	--
"	Opaque	Sky Blue	5.0B 7/6	105	35	---	"	"	--
"	Opaque	Turquoise Blue	5.0B 5/6	60	19	--	"	"	--
"	Translucent	Turquoise Blue	5.0BG 7/2	36	5	--	"	"	--
"	Opaque								
				1078	169	--			

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2: B. Modified - Reheated to produce oval and round beads:

ogue No.	Glass	Color	Hue, Value & Chroma	Seed	Intermediate	Pony	Square	Level	Location
120/1	Opaque	Rose	5.0R 7/4	58	55	--	All	1	--
	Transparent	Rose	5.0R 6/6	36	--	--	"	"	--
	Transparent	Maroon	5.0R 3/10	80	34	--	"	"	--
	Translucent	Emerald Green	5.0G 5/4	205	24	--	"	"	--
	Opaque	White	9/0 White neutral	123	17	1	"	"	--
	Opaque	Ivory	5.0Y 7/6	7	--	--	"	"	--
	Opaque	Lemon Yellow	5.0Y 8/6	55	1	--	"	"	--
	Transparent	Clear	--	23	1	--	"	"	--
	Opaque	Navy Blue	5.0 PB 3/4	42	11	--	"	"	--
	Translucent	Royal Blue	5.0 PB 3/10	18	2	--	"	"	--
	Opaque	Sky Blue	5.0 B 7/6	11	23	--	"	"	--
	Translucent	Turquoise Blue	5.0B 5/6	29	9	--	"	"	--
	Opaque	Turquoise Blue	5.0BG	49	27	--	"	"	--
				736	204	1			

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Code	Glass	Color	Hue, Value & Chroma	Seed	Intermediate	Pony	Square	Level	Location
120/6	Opaque	Rose	5.0R 7/4	1	4	--	B11	1	--
"	Transparent	Maroon	5.0R 3/10	5	1	--	"	"	--
"	Translucent	Emerald Green	5.0G 5/4	1	3	--	"	"	--
"	Opaque	White	9/0 White neutral	1	-	--	"	"	--
"	Opaque	Navy Blue	5.0PB 3/4	1	-	--	"	"	--
"	Translucent	Turquoise Blue	5.0B 5/6	1	2	--	"	"	--
"	Opaque	Turquoise Blue	5.0BG 7/2	-	3	--	"	"	--
				10	13				
LS									
120/8	Opaque	Rose	5.0R7/4	-	2	--	C11	--	--
"	Translucent	Emerald Green	5.0G 5/4	2	-	--	"	--	--
"	Opaque	Ivory	5.0Y 7/6	1	-	--	"	--	--
"	Opaque	Navy Blue	0.0PB 3/4	-	1	--	"	--	--
"	Opaque	Tan	5.0YR 7/4	1	-	--	"	--	--
				4	3				
LS									

ague No.	Glass	Color	Hue, Value & Chroma	Seed	Intermediate	Pony	Square	Level	Location
120/9	Opaque	Rose	5.0R 7/4	1	--	--			
	Transparent	Rose	5.0R 6/6	2	--	--			
	Transparent	Maroon	5.0R 3/10	1	--	--			
	Translucent	Emerald Green	5.0G 5/4	4	--	--			
	Opaque	Lemon Yellow	5.0Y 8/6	1	--	--			
	Opaque	Turquoise Blue	5.0BG 7/2	1	--	--			
				10	--	--			

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3 : C. Modified - White opaque core - Cornaline d'Allepo

120/1	Translucent	Maroon	5.0R 3/10	96	18	--	All	11	--
120/4	Translucent	Maroon	5.0R 3/10	326	13	--	All	11	--
120/6	Translucent	Maroon	5.0R 3/10	2	1	--	B11	1	--
				424	32				

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4: 11. Wire Wound Beads

A. Ovoid (Oval) indecorated

Catalogue No.	Glass	Color	Hue, Value & Chroma	Size	Square	Level	Location
120/1	Transparent	Clear	-	Length 13.5 mm. Diameter 8.0 mm.	All	1	--
120/3	Transparent	Clear	-	Broken	All	-	170 cm. NW of All 241 cm. NE of A12 110 cm. b. C12
120/5	Transparent	Clear	-	L - 19.0 mm. Dia. -10.0 mm.	B11	1	220 NW of All 283 NE of A12 115 cm. b. C12
120/5	Transparent	Clear	-	L - 12.0 mm. Dia. - 7.7 mm.	B11	1	210 cm. NW of All 278 cm. NE of A12 109 cm. b. C12
120/1	Translucent	Turquoise Blue	5.0BG 7/2	L - 13.0 mm.	All	1	--

5: B. Round undecorated

120/1	Opaque	Turquoise Blue	5.0B 5/6	9.0 mm. in dia.	All	1	--

6: C. Round with applied decoration

Issue No.	Glass	Color	Hue, Value & Chroma	Size	Square	Level	Location
120/2	Glass Base Decoration -	Translucent - violet 5.0P 4/4 opaque white background with alternate Rose (5.0R 6/6) and Royal Blue (5.0 PB 3/8) spots. L - 11 mm. Dia. 11.8 mm.			All	-	219 cm. NW of A11 160 cm. NE of A12 92 cm. b. C12

GLASS TYPOLOGY:

Morphological Attribute Code for Glass Sherds

Attribute Code Number	Morphological Attribute
1	Rim
2	Rim and Neck
3	Neck
4	Rim, Neck, and Shoulder
5	Neck and Shoulder
6	Shoulder
7	Neck, Shoulder, and Body
8	Shoulder and Body
9	Shoulder, Body, and Base
10	Body
11	Body and Base
12	Base
13	Melted or Fire-cracked
14	Unidentifiable

Artifact Number	Color Code	Attribute Code Number	Length	Width	Thickness	Inside Diameters	Outside Diameters	Location	Grid Square & Level
A-240	5.0R 6/8	6	8.0+ mm.	5.6+ mm.	0.5 mm.	--	--	--	A11-1
A-87 (a)	5.0YR 4/8	10	43.5+ mm.	12.0+ mm.	3.0 mm.	--	--	--	B11-11, A11-I
A-87 (b)	5.0YR 4/8	14	15.2+ mm.	12.5+ mm.	3.0 mm.	--	--	--	B11-11, A1-I
A-87 (c)	5.0YR 4/8	14	34.0+ mm.	11.0+ mm.	2.5	--	--	--	B11-11, A11-I
A-226 (a)	5.0YR 4/8	14	26.5+	5.0+	2.5	--	--	130 cm. NW of A11 14 cm. NE of A12 90 cm (b) C12	A11-1 and 11
A-266 (b)	5.0YR 4/8	14	19.5+	5.5+	2.5	--	--	"	A11-1 and 11
A-266 (c)	5.0YR 4/8	14	14.5+	9.0+	3.0	--	--	"	A11-1 and 11
A-236 (a)	5.0YR 7/4	14	19.2+	17.2+	3.0	--	--	--	A11-1
A-236 (b)	5.0YR 7/4	14	18.0+	13.0+	3.0	--	--	--	A11-1
A-236 (c)	5.0YR 7/4	14	9.5+	7.0+	1.5+	--	--	--	A11-1
A-236 (d)	5.0YR 7/4	14	8.0+	5.5+	3.5	--	--	--	A11-1
A-236 (c)	5.0YR 7/4	14	7.0+	5.0+	1.2+	--	--	--	A11-1
A-232	5.0 4 5/6	10	47.5+	25.0+	4.0	--	--	--	A11-1
A-234 (a)	5.0GY 5/6	10	50.0+	28.0+	5.0	63.5 (body)	75.0 (body)	--	A11-1
A-234 (b)	5.0GY 5/6	10	28.0+	23.5+	5.5	--	--	--	A11-1
A-78 (a)	5.0GY 6/4	14	41.5+	13.8+	1.5	--	--	--	B11-1 and II, A-11
A-78 (b)	5.0GY 6/4	14	29.0+	21.7+	1.5	--	--	--	B11-1 and II, A-11
								--	B11-1 and II, A-11

Artifact Number	Color Code	Attribute Code Number	Length	Width	Thickness	Inside Diameters	Outside Diameters	Location	Grid Square & Level
A-78 (d)	5.0GY 6/4	14	16.0+ mm.	15.0+ mm.	1.5 mm.	--	--	--	B11-1 & 11, A11-I
A-81	5.0GY 6/4	2	28.5+ mm.	7.0 mm.	13.0(rim)	18.0 (rim)	31.0 (rim)	--	AA13-1
A-241	5.0GY 6/4	14	41.5+	21.5+	2.5	--	--	--	B12-1
A-288 (a)	5.0G 5/8	5	8.5+	6.3+	0.5	2.0 (neck)	2.7 (neck)	-	A11-1
A-288 (b)	5.0G 5/8	14	6.2+	5.5+	0.5	--	--	130 cm NW of A11 14 cm NE of A12 90 cm (b) C12	A11-1
A-79	5.0G 8/2	4	12.0(neck)	27.0+ (sherd)	4.0 (rim) 2.0 (glass)	9.0 (rim) 8.5 (neck)	19.0 (rim) 16. (neck)	-	C12-1
A-246 (a)	5.0G 8/2	14	29.5+	7.0+	4.0+	--	--	-	A11-1
A-246 (b)	5.0G 8/2	14	23.5+	7.0+	3.0	--	--	-	A11-1
A-242	5.0G 8/2	1	--	--	11.0(rim)	8.0 (rim)	17.5 (rim)	-	A11-1
A-249 (b)	5.0G 8/2	14	14.3+	17.0+	2.5+	--	--	-	A11-1
A-251	5.0G 8/2	11	11.0+	8.0+	2.5+	--	--	-	A11-1
A-252	5.0G 8/2	14	10.0+	4.0+	1.5+	--	--	-	A11-1
A-80	5.0G 8/6	13	49.5+	16.0+	7.0	--	--	-	No grid number
A-247	5.0G 8/6	14	29.0+	20.0+	6.0	--	--	-	A11-1
A-248	5.0G 8/6	14	31.0+	21.2+	2.0	--	--	-	A11-1
A-245 (a)	5.0G 8/6	11	27.0+	7.0+	3.0	--	--	-	A11-1
A-245 (b)	5.0G 8/6	14	31.0+	24.0+	2.0	--	--	-	A11-1
[illegible]	[illegible] 8/6	14	17.0+	13.5+	2.0	--	--	-	B11-1, A11-1

Artifact Number	Color Code	Attribute Code Number	Length	Width	Thickness	Inside Diameters	Outside Diameters	Location	Grid Square & Level
A-250 (b)	5.0G 8/6	14	16.0+	13.0+	2.0	--	--	--	B11-1, A11-1
A-250 (c)	5.0G 8/6	14	15.5+	11.5+	1.5	--	--	--	B11-1, A11-1
A-138 (a)	5.0G 8/6	13	43.0+	23.5+	10.0	--	--	--	B11-1, A11-1
A-138 (b)	5.0G 8/6	13	40.0+	24.0+	19.0	--	--	--	B11-1, A11-1
A-138 (c)	5.0G 8/6	13	29.5+	26.0+	1.4	--	--	--	B11-1, A11 1
A-138 (d)	5.0G 8/6	13	25.0+	18.0+	20.0	--	--	--	B11-1, A11-1
A-230	5.0BG 6/6	11	19.5+	18.0+	3.5	--	--	Exterior Cache Pit	No grid number
A-233 (a)	5.0BG 6/6	11	46.5+	25.0+	13.0 (base) 4.0 (glass)	44.0 (base)	53.5 (base)	--	A11-1 and 11
A-233 (b)	5.0BG 6/6	14	33.0+	27.5+	3.0	--	--	--	A11-1 and 11
A-235 (a)	5.0BG 6/6	14	32.5+	21.0+	3.5	--	--	--	A11-1
A-235 (b)	5.0BG 6/6	14	27.5+	16.0+	4.0	--	--	--	A11-1
A-235 (c)	5.0BG 6/6	14	19.0+	13.0+	3.5	--	--	--	A11-1
A-231	5.0PB 3/10	11	25.0+	21.5+	6.5	--	--	--	A12-1
A-227 (a)	5.)PB 5/8	11	22.5+	12.0+	3.0	--	--	130 cm NW of A11 14 cm oNE of A12 90 cm (b) A12	A11-1 and 11
A-227 (b)	5.0PB 5/8	14	26.0+	7.5+	3.0	--	--	"	A11-1 and 11
A-227 (c)	5.0PB 5/8	14	19.0+	6.0+	3.5	--	--	"	A11-1 and 11
A-243	9/10	14	10.5+	7.0+	1.0	--	--	--	A11-1
									B11-1

Artifact Number	Color Code	Attribute Code Number	Length	Width	Thickness	Inside Diameters	Outside Diameters	Location	Grid Square & Level
A-244(c)	Clear	14	21.0+	10.0+	1.5	--	--	--	B11-1
A-244(d)	Clear	14	14.5+	9.0+	1.0	--	--	--	B11-1
A-244(e)	Clear	14	13.5+	9.5+	1.0	--	--	--	B11-1
A-244(f)	Clear	14	9.5+	5.0+	1.0	--	--	--	B11-1
A-244(g)	Clear	14	8.5+	5.5+	1.0	--	--	--	B11-1
A-253(a)	Clear	14	44.0+	40.0+	1.0	--	--	--	B11-1, A11-1
A-253(b)	Clear	14	38.0+	23.5+	1.0	--	--	--	A11-1, B11-1
A-253(c)	Clear	14	31.0+	20.5+	1.0	--	--	--	A11-1, B11-1
A-253(d)	Clear	14	25.0+	13.0+	1.0	--	--	--	A11-1, B11-1
A-253(e)	Clear	14	18.0+	12.5+	1.0	--	--	--	A11-1, B11-1
A-253(f)	Clear	14	21.0+	12.2+	1.0	--	--	--	A11-1, B11-1
A-254(a)	Clear	13	35.0+	27.0+	4.5	--	--	--	A11-1 and 11
A-254(b)	Clear	13	28.0+	19.0+	10.0	--	--	--	A11-1 and 11
A-254(c)	Clear	13	11.0+	9.0+	4.0	--	--	--	A11-1 and 11
A-255	Clear	13	33.5+	27.5+	2.5	--	--	--	B11-1
A-256(a)	Clear	14	28.0+	22.0+	2.5	--	--	--	A11-1 and 11
A-256(b)	Clear	14	30.5+	28.0+	2.5	--	--	--	A11-1 and 11
A-256(c)	Clear	14	26.5+	15.0+	2.0	--	--	--	A11-1 and 11
A-257(a)	Clear	14	37.5+	27.0+	4.5	--	--	--	A11-11, A12-1

"IDENTIFIABLE BONES"

1. White-tailed Jackrabbit - 1 Scapula (ring): sq. All-11
2. White-tailed Jackrabbit - 1 Humerus (right); whole; sq. B11-1
3. White-tailed Jackrabbit - 1 Radius (right); whole; sq. All-11
4. White-tailed Jackrabbit - 1 Ulna (right) while; sq. All-11
5. White-tailed Jackrabbit - 1 Tibia (right); distal; sq. All-11
6. White-tailed Jackrabbit - 1 Femur (right); distal; sq. All-1
7. Skunk - 1 Humerus (left); distal; sq. C11
8. Kit Fox - 1 Femur (right); proximal; sq. All-1
9. Kit Fox - 1 Femur (right); distal; sq. All-1
10. Kit Fox - 5 Caudal vertebrae; sq. All-11
11. Badger - 1 Humerus (right); whole; sq. B11-1
12. Porcupine - 1 Metacarpal (left); whole; sq. All-1
13. Porcupine - 1 Radius (right); proximal; sq. All-11
14. Porcupine - 1 Femur (left); whole; sq. All-11
15. Canis sp? - 1 Clavicle (right) immature; whole; Sq. B11-1
16. Sciuridae (Gen? Sp?) - 1 Femur (left) whole; sq. All-1
17. Sciuridae (Gen? Sp?) - 1 Ulna (left); whole; sq. All-1
18. Sciuridae (Gen? Sp?) - 1 Tibia (left); whole; sq. All-1
19. Sciuridae (Gen? Sp?) - 1 Tibia (right); distal; sq. All-11
20. Domestic Sheep - 1 Scapula (right); whole; Feature 1
21. Domestic Sheep - 1 Scapula (left); whole; Feature 1
22. Domestic Sheep - 1 Humerus (right); whole; Feature 1
23. Domestic Sheep - 12 Thoracic vertebrae; wh; Feature 1
24. Domestic Sheep - 7 Lumbar vertebrae; wh; Feature 1
25. Domestic Sheep - 7 Sternebrae; whole; wh; Feature 1
26. Domestic Sheep - 11 Ribs (right); whole; Feature 1
27. Domestic Sheep - 14 Ribs (left); whole; Feature 1
28. Domestic Sheep - 1 Innominate (left) whole; Feature 1
29. Domestic Sheep - 1 Sacrum, whole; Feature 1
30. Domestic Sheep - 2 Caudal vetebrae; whole; Feature 1
31. Domestic Sheep - 1 Cervical vertebrae; whole; Feature 1
32. Mountain Sheep? - 1 Atlas; whole; Surface Collection
33. Horse - 1 Tibia, (right); distal; Surface Collection
34. Horse - 1 Femur (left); distal; Surface collection
35. Cow - 1 Ulna (left); whole; Surface Collection

36.	Cow	-	1 Radius (left); whole; Surface Collection
37.	A large Ungulate (Gen? Sp?		1 Sternebrae; whole; Surface Collection
38.	Bison	-	1 Scapula glenoid cavity and tubular spaculae fragment (left); sq. B11-1
39.	Bison	-	1 Scapula spinus process (right); Surface Col.
40.	Bison	-	1 Acromion of Scapula (left); sq. A11-1
41.	Bison	-	5 Scapula (left); fragmented; sq. Surface Col.
42.	Bison	-	4 Scapula (right); fragmented; Surface Col.
43.	Bison	-	1 Humerus (left); whole; Surface Collection
44.	Bison	-	8 Humerus (left); distal; Surface Collection
45.	Bison	-	8 Humerus (right); distal; Surface Collection
46.	Bison	-	1 Humerus (right); proximal; Surface Collection
47.	Bison	-	1 Humerus (right); distal; AA13-1
48.	Bison	-	1 Humerus (right); proximal; B11
49.	Bison	-	1 Ulna; (right); proximal; Surface Collection
50.	Bison	-	2 Ulna; (left); proximal; Surface Collection
51.	Bison	-	1 Ulna (right); proximal; A11-1
52.	Bison	-	1 Radius (right); Whole; Surface Collection
53.	Bison	-	1 Radius (right); proximal; Surface Collection
54.	Bison	-	2 Radius (left); proximal; Surface Collection
55.	Bison	-	1 Radius (right); proximal; A11-1
56.	Bison	-	1 Metacarpal (left); distal; Surface Collectio
57.	Bison	-	1 Metacarpal (left); whole; feature 1
58.	Bison	-	1 Innominate (left); whole; surface collection
59.	Bison	-	2 Acetabular triangles (left); surface collect
60.	Bison	-	3 Acetabular triangles (right); surface collec
61.	Bison	-	1 Illium (left); surface collection
62.	Bison	-	2 Femur (right); distal; surface collection
63.	Bison	-	1 Femur (left); proximal; AA12-1
64.	Bison	-	2 Tibia (right); distal half; surface collecti
65.	Bison	-	4 Tibia (right); proximal; surface collection
66.	Bison	-	3 Tibia (left); proximal; surface collection
67.	Bison	-	1 Tibia diaphysis fragment (right); surface co
68.	Bison	-	1 Tibia (left); proximal; Feature 1
69.	Bison	-	2 Tibia (left); distal; Feature 1
70.	Bison	-	1 Immature Tibia (left); distal; Feature 1
71.	Bison	-	1 Metatarsal (left); whole; surface collectio
72.	Bison	-	1 Rib (left); whole; surface collection

73.	Bison	-	2 Mandible Fragments (right); sq. All-1
74.	Bison	-	1 Odontoid Process of Atlas; sq. AA12-1
75.	Bison	-	1 Axis; fragment; AA12-1
76.	Bison	-	2 Cervical vertebrae; fragments; sq. All-11
77.	Bison	-	3 Cervical vertebrae; whole; surface coll.
78.	Bison	-	1 Thoracic vertebrae; fragment; surface coll.
79.	Bison	-	1 2nd and 3rd carpal (right); whole; sq. All-1
80.	Bison	-	1 Radial Carpal (right); whole; sq. All-1
81.	Bison	-	1 Intermediate Carpal (right) whole; sq. All-1
82.	Bison	-	1 Ulnar Carpal (right); whole; sq. All-1
83.	Bison	-	2 Sesmoids; proximal; sq. All-1
84.	Bison	-	1 Sesmoids; distal; Feature 1
85.	Bison	-	1 Patella (right) whole; sq. Bll-1
86.	Bison	-	1 1st Phalanx; whole; sq. All-1 (prob. a fron
87.	Bison	-	1 2nd Phalanx; whole; sq. Bll-1 (prob. a fron
88.	Bison	-	1 Lateral Maleolus (left); whole; Feature 1
89.	Foetal Bison	-	1 Scapula (left); whole; sq. All-11
90.	Feotal Bison	-	1 Scapula (left); fragment; Feature 1
91.	Feotal Bison	-	1 Humerus (left); whole; sq. All-1
92.	Foetal Bison	-	1 Maxillavy Fragment; sq. All-II
93.	Trumpeter Swan	-	1 Femur (left); proximal; sq. Bll-1
94.	Trumpeter Swan	-	1 Femur (right); distal; sq. All-11
95.	Trumpeter Swan	-	1 Coracoid Process (left); fragment; sq. Al2-
96.	Trumpeter Swan	-	3 Cervical vertebrae; whole; sq. Bll-1
97.	Trumpeter Swan	-	2 Tracheal Rings; whole; sq. All-1

"UNIDENTIFIABLE BONES AND BONE FRAGMENTS"

1. Unidentifiable Ribs; Rib Fragments; Transverse Processes; and Spinus Processes.

A. Immature to Adult Animals

Grid and Level number	Total specimens
1. A11-11	136
2. A11-11	73
3. A11-111	10
4. AA11-1	1
5. AA12-1	3
6. A13	2
7. B10	1
8. B11-1	43
9. B11-11	57
10. C10	7
11. C11	2
12. C12-1	5
13. Feature 1	8
14. No grid or level number	2
TOTAL	350

B. Foetal Bone Materiad

Grid and Leved Number	Total specimens
1. A11-1	14
2. A11-11	23
3. B11-1	1
4. B11-11	8
5. No grid or level number	0
TOTAL	46

II. Unidentifiable Long Bones and and Long Bone Fragments:

A. Immature to Adult Animals

Grid and Level Number	Total Specimens
1. A10-1	2
2. A11-1	455
3. A11-11	146
4. A11-111	1
5. AA11-1	6
6. AA12-1	8
7. A12-	10
8. A13	10
9. B11-1	130
10. B11-11	41
11. B11-111	1
12. B12-1	2
13. C10	1
14. C11	10
15. C12	3
16. Feature 1	22
17. No grid or level number	29
TOTAL	877

B. Foetal Bone Material

Grid and Level Number	Total Specimens
1. A11-1	16
2. A11-11	20
3. B11-11	5
4. B11-111	2
5. No grid or level number	5
TOTAL	48

III. Miscellaneous Unidentifiable Bones

A. Immature to Adult Animals

Grid and Level Number	Total Specimens
1. A11-1	19
2. A11-11	22
3. A12	1
4. A13	1
5. B11-1	9
6. B11-11	3
7. No grid or level number	4
TOTAL	59

B. Foetal Bone Material

Grid and Level Number	Total Specimens
1. A11-1	8
2. A11-11	27
3. B11-1	1
4. B11-11	2
5. No grid or level number	0
TOTAL	38

PART IV: FORM FUNCTION TABLES

TRANSPORTATION

CLASS NAME	NATIVE INPUT							TRADE INPUT						
	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard
Leather			x		x					x		x		
Iron Horseshoe										x	x	x		
Large Iron File Tip										x		x		
Large Iron Staple										x		x		
Spreader Element or Strap Fastener										x	x	x		
Iron Wire										?	?	x		
Iron Ring										?	?	?		
Wagon Box Brace										x		x		
Lead Seal								?			x			
Possible Lead Seal								?			x			
Iron Trade Knife										x		x		
Clasp Knife Handle										x		x		
Iron Strips										x		x		
Iron Sheet										x		x		
Iron Scrap										x		x		
Wooden Awl Handle										x		x		

CLOTHING

CLASS NAME	NATIVE INPUT							TRADE INPUT						
	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard
Buttons										x	x	x		
Brass Buckle										x	x	x		
Hook and Eye Fasteners										x	x	x		
Thread										x		x		
Fabric										x		x		
Leather			x		x	x				x		x	x	
Iron Trade Knife								x						
Clasp Knife Handle								x						
Headless Shank of Needle										x		x		
Brass Sewing Thimbles										x		x		
Ornamental Glass										x		x		
Beads										x		x		
Wooden Awl Handle										x		x		
Stone Tools			x											

SHELTER

CLASS NAME	NATIVE INPUT							TRADE INPUT						
	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard
Iron Trade Knife								x		x		x		
Clasp Knife Handle								x		x		x		
Iron Strips										x		x		
Iron Sheet										x		x		
Iron Scrap										x		x		
Chinking	x		x		x									
Wood Scraps	x		x		x									
Tile Flooring										x		x		
Wooden Awl Handle										x		x		
Nails								x		x		x		
Large Iron File Tip								x		x		x		
Large Iron Staple										x		x		
Iron Wire									x	x		x		
Iron Ring									x	x		x		

CLASS NAME	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard
Large Iron File Tip								x		x				
Iron Wire								x	?					
Iron Ring									?					
Cups											x			
Saucers											x			
Plates											x			
Bowls and/or Vases											x		?	
Bean Pot											x		?	
Miscellaneous Pottery											x		?	
Serpent Side Plate								x						
Brass Trigger Plate								x						
Brass Ramrod Tip								x						
Brass Ramrod Guide								x						
Lead Balls								x						
Lead Shot								x						
Amorphous Melted Lead Scrap								x						
Cast Lead Bullets								x						
Cartridge Cases								x						
Shot gun Shells								x						
Iron Trade Knife								x			x	x		
Clasp Knife Handle											x	x		
Cutlery (metal)											x	x		
Iron Basin												x		
Iron Cans									x	x	?	x	?	x
Lead Foil									x	?				x
Iron Scrap									x	x	?	x	?	x
Large Bottles									x	x	?	x		x
Jars									x	x	x	x	x	x
Glass Bowls												x	x	x
Inscribed Glass									x	x	x	x	x	x
Miscellaneous Glass									x	x	x	x	x	x
Hazel Nut Fragments		x												

MEDICINAL/HYGIENE

CLASS NAME	NATIVE INPUT							TRADE INPUT						
	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard
Large Tooth Comb								x			x	x		
Iron Trade Knife								x		x	x			
Clasp Knife Handle								x		x	x			
Small Medicine Bottles								x			x	x	?	
Inscribed Glass								x		?	x	x	?	
Miscellaneous Glass								x		?	x	x	?	

RECREATION

CLASS NAME	NATIVE INPUT							TRADE INPUT						
	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard	Procurement	Transport	Manufacture	Use	Maintenance	Storage	Discard
Buttons								x		x	x	?		
Large Iron File Tip										x		x		
Dolls								x			x			
Pipes								x			x			
Lead Balls								x			x			
Iron Trade Knife										x	?	x		
Clasp Knife Handle										x	?	x		
Headless Shank of Needle								x			x			
Brass Sewing Thimbles								x			x			
Large Bottles								x			x			?
Ornamental Glass								x			x			
Miscellaneous Glass								x			x			?
Mirrors								x		?	x			
Beads								x		x	x	x		

NO ADAPTIVE VALUE READILY DETERMINABLE

	NATIVE INPUT	TRADE INPUT
Unidentifiable Metal		
Ojbect		x
Stud		x

ACKNOWLEDGEMENTS

We are indebted to both a number of individuals and institutions whose contributions have helped make this study possible. First, we would like to express our gratitude to Mr. and Mrs. Laurence Kajewski who generously permitted us to excavate on their property and who assisted us in a variety of ways during the course of the field work.

Dr. Alan Bryan, at the Department of Anthropology, University of Alberta was instrumental in helping securing funds during both the fieldwork and laboratory stages of the project. Fieldwork conducted in 1967 was supported through funds awarded to Professor Bryan as part of a National Museum of Canada Grant. Recovered data was not written up until the winter of 1972 and 1973 which was made possible through two consecutive grants. We would like to express our gratitutde to Government of Canada for a local initiative program grant which helped to support laboratory work undertaken during the winter of 1972. In 1973 it was possible to complete this project as salaries were made available for research assistants by the Provincial Parks Division of the Department of Lands & Forests. The friendly assistance of Gerry Rushton and George Robbins, both the Parks Planning Division, greatly aided in the rapid completion of the project by acquiring needed supplies, administrating payrolls and by making arrangements to have maps drafted.

The Department of Anthropology at the University of Alberta greatly aided the project throughout its entire history. Assistance was provided in such forms as an International Bursary to defray expenses for Robson Bonnichsen who superseded the field work, arrangements were made for a field vehicle, and laboratory and research space was provided.

An able and responsible crew greatly facilitated the fieldwork. We extend our sincere thanks to Jack Elliott, Carolyn Kobelka and the late Norman Zierhut. Our appreciation is also extended to John and Trudy Nicks and John Pech who assisted in the test excavation during the fall

of 1966. Special mention should be made of the fact that Sylvia Elliott, Vaughn Driscoll and Eugene Kobelka worked many wageless hours in the Archaeology laboratory during the summer of 1966 in thankless task of cleaning and making artifact identifications. Our thanks are also extended to Richard Baker who spent many fruitless hours plotting artifacts in search of locational patterns. Last but not least, the superb photographs which appear at the end text were prepared by the crafty hand of Hugh John.

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CAPTIONS FOR PLATES

PLATE 1 : General view of site locality;
Arrow indicates position of Cabin Site A

PLATE 2 : East room in Cabin A after excavation - view towards Northeast.

PLATE 3 : Top, south half of east room in Cabin A view towards Northeast; Bottom interior cache pit during excavation.

PLATE 4 : Top, North half of east room, Cabin A during excavation - view towards North; Bottom, Chimney and heart remains - view towards the north northeast.

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PLATE 6 : A - brass serpent side plate from trade gun (A-84) 0.75X;
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PLATE 10 : A - Earthenware cup sherd with transparent glaze (A-59), 1.9X;
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A- Brass hook and eye fastner, (A-147), 8.0X;

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A- Frament of clay pipe bowl, (A-100 and A-150), 2.5X;

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A- Iron trade knife blade made by "Jukues Coulson Stokes and Co." (A-86), 0.65X.

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A- Piece of leather strop, (A-108), 2.1X;

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