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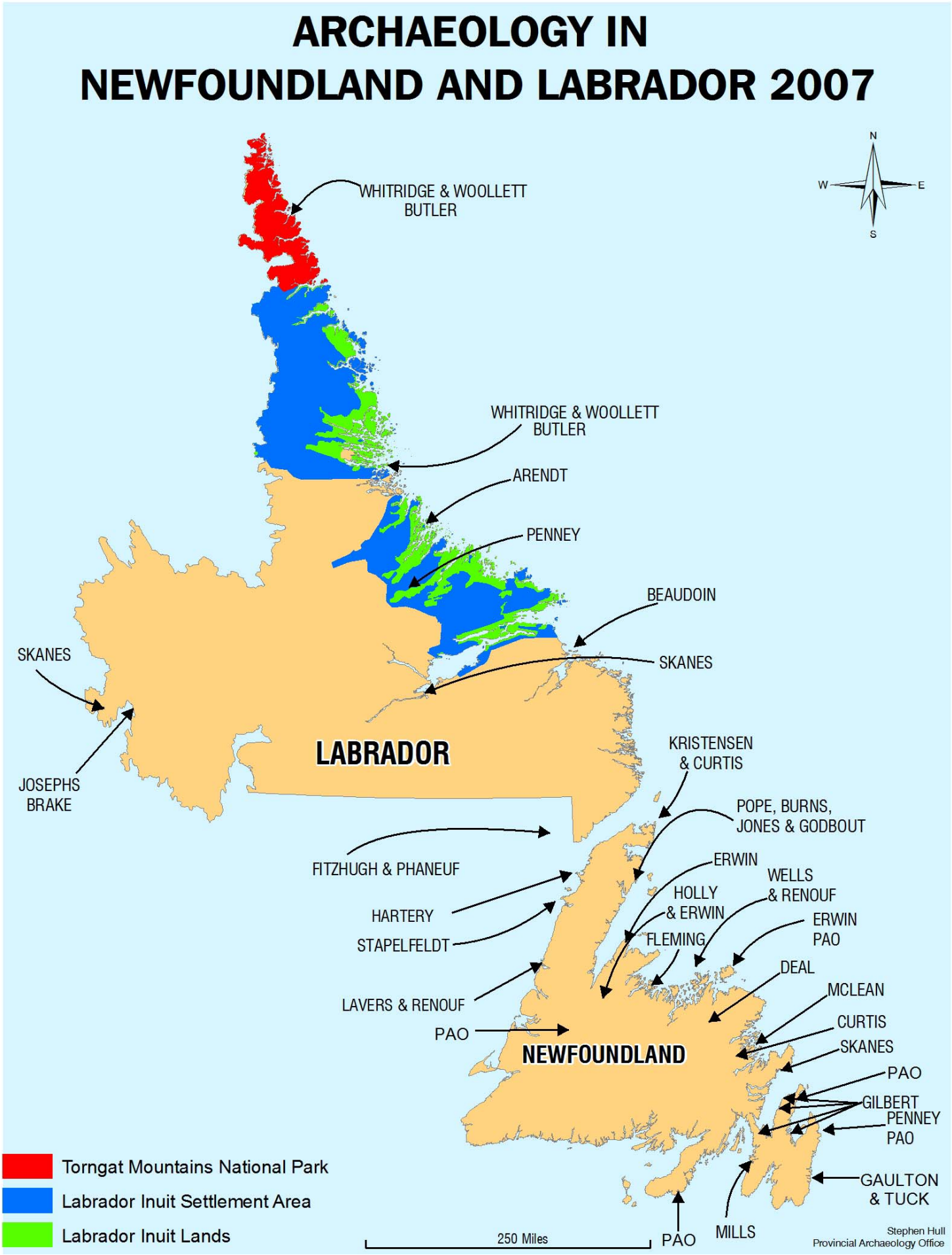
Provincial Archaeology Office 2007 Archaeology Review

Recent Indian Biface from Dildo Island. (Gilbert)

Stephen Hull
Delphina Mercer
Editors

On behalf of the Provincial Archaeology Office, I am pleased to provide you with the 2*007 Provincial Archaeology Office Archaeology Review*; an annual summary of the past year's field season. The *Archaeology Review* was initiated in 2003 as a four page Newsletter and has grown exponentially to this year's issue of over 100 pages with nearly 30 submissions. The original hope for the Newsletter was to provide the archaeology community of Newfoundland and Labrador and elsewhere with a brief overview of archaeological activity carried out in the province in the past year. The response from permit holders and researchers has greatly exceeded our expectations. I would like to thank all contributors for their time and effort in writing the articles for this issue. As always, such contributions provide valuable insight into the workings of the archaeology community as a whole. We welcome any comments you may have and encourage continued submission of new ideas for the Review. I trust you will find this issue of interest and wish you continued success in the upcoming year.

Martha Drake
Provincial Archaeologist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2007 SEASON REPORT: HOPEDALE ARCHAEOLOGY PROJECT

Beatrix Arendt
University of Virginia

The 2007 field season in Hopedale, Labrador was a preliminary survey of Inuit sod houses and middens in and around the Moravian mission. This report discusses preliminary findings from two projects conducted near the Moravians mission in Hopedale and on two islands in the region. This work is part of my doctoral research at the University of Virginia investigating the influence of German Moravian missionaries on changing Inuit culture.

In the 18th century, German Moravian missionaries arrived in Labrador with the hopes of offering civilization and Christian enlightenment to the Inuit. Thirty years after the establishment of the first Moravian mission, many Labrador Inuit moved to the missions, converted to Christianity, and fully engaged in a European economic market. However, archaeological evidence from excavated Inuit deposits in Labrador confirms documentary records that Inuit incorporated European materials and practices while maintaining many Inuit traditions. My dissertation research proposes to systematically compare archaeological records from 18th- and 19th-century Inuit sites to explore complex social, economic and religious dynamics that served as the factors for the transformation of Inuit culture during the 19th centuries.

Working with David Igloliorte, director of the Hopedale Moravian Museum, and Nunatsiavut archaeologist Lena Onalik, the Hopedale Archaeology Project (HAP) included a community-outreach component. Funding provided by the Nunatsiavut Government Pathways Grant allowed me to hire five local students to participate in the archaeological survey of a 19th-century Moravian midden and on Anniowaktok Island (a.k.a. Big Island) and Kernertaluk Island. HAP is the continuation of the work begun by Dr. Stephen Loring of the Smithsonian Institution called the Central Coast of Labrador Community Archaeology Project (CCLAP). Since 1999, the Arctic Studies Center of the Smithsonian Institution and institutions in Labrador, Newfoundland, and the United States have been conducting summer field schools centered on the coastal Inuit communities. The community goals of the program include providing training and employment opportunities for Inuit students in the field of archaeology, working with local communities and historical societies to identify archaeological and historical resources, working with local Labrador teachers to incorporate archaeology into the curriculum, and help foster pride in Labrador culture and heritage. As part of the community archaeology project, artifacts and photographs from the summer's work were exhibited at an open house in the Hopedale Mission building at the end of the season.

The 2007 field season was divided into two stages that included excavation and survey during July and August. The first stage was a three-week excavation in search of 19th-century Moravian midden located near the Hopedale Moravian mission buildings; the second stage was a two-week survey and excavation project on Kernertaluk and Anniowaktok Islands located near Hopedale.

Hopedale Moravian Midden (GiCb-05)

Excavations in search of the Moravian midden were based on artifacts found by Dr. Loring in 2002. During the erection of a telephone pole located north of the mission buildings, construction workers unearthed a number of historic materials including 19th-century ceramic fragments. Dr. Loring noted the appearance of historic materials and suggested this was the location of a Moravian midden. Moravians introduced centralized middens as an attempt to control discard patterns and introduce hygienic habits to the Inuit, who previously discarded their refuse in middens located directly in front of individual houses. Other than noting its location and collecting a few artifacts, Loring did not investigate further due to time constraints.

Additional archaeological evidence for middens located behind the mission buildings is based on earlier excavations conducted at another Labrador mission. In the 1990s, Dr. Loring and Melanie Cabak of the University of South Carolina conducted excavations along a bank located behind the Moravian church in Nain (Cabak 1991; Cabak and Loring 2000). Their excavations unearthed a large quantity of European and Inuit materials, and a large presence of ceramics, particularly hollow, stamped-decorated ceramics which served as potential cultural markers for Euro-Inuit interactions (Cabak and Loring 2000, 29).

Based on Cabak and Loring's findings at Nain and Loring's identification at Hopedale, I placed two 1x1 meter units behind the missionary buildings, opposite the telephone pole and near a portion of bedrock extending over the road. An additional unit was later added to the area behind the telephone pole, when a home owner unearthed some 20th-century ceramics while digging a hole for her laundry line. The systematic sampling was conducted to determine whether the mission extended to both sides of the road, identify the level of preservation, and conclude whether future projects would be necessary. In addition to these three units, two exploratory units were placed five meters north of the museum building along a slope, since it exhibited

potential for a similar over-the-bank midden as seen at Nain. Excavation and recording for these five units was conducted by myself and a team of five Hopedale students.

The original 19th-century midden deposit was not found, but excavations did reveal evidence for its existence as well as the discovery of a second midden. The three units located around the telephone pole revealed a highly disturbed area filled with 20th-century material. Although we were not able to relocate an undisturbed midden as identified by Loring, material evidence of a 19th-century midden did appear in the mixed deposits. Pearlware fragments with drilled repair holes were found near the bottom of one unit, located approximately 10 meters south of the telephone pole and near the bedrock. The post-manufacture modification of these sherds suggests reuse. Inuit would drill holes on either side of a break and then tie it together with leather or twine. No longer capable of holding liquid, the ceramics were kept for alternative, perhaps decorative, purposes.

The two 1x1 meter units situated approximately 5 meters north of the Moravian museum revealed a 5 to 10 cm thick level composed of decomposing red and yellow bricks.

Selma Jararuse excavating the brick layer near the Moravian Mission building in Hopedale, Labrador. (Arendt)

Artifacts located in the level directly above this brick deposit dated to the Moravian period, including kaolin tobacco pipe fragments, a slipware plate fragment with a crenulated edge, creamware (manufacture dates 1762-1820 (Noël Hume 1969, 123-126) and pearlware (manufacture dates 1775-1830s (Ibid., 128-130). The brick level was likely a post-construction deposit, since the bricks are incomplete and of poor quality.

In conclusion, the 2007 summer excavation in Hopedale determined evidence for the presence of multiple middens. Although the midden identified by Dr. Loring was not found in its original context, material evidence in the area around the bedrock confirms its existence. Due to continued development in the town of Hopedale, it is also unlikely that any preserved midden context still exists. These excavations did discover the presence of another midden located directly behind the museum along the bank. Based on ceramic evidence, this midden appears to date to an earlier mission period.

Kernertaluk and Anniowaktok Island (GiCb-03)

Although Moravian documents note that many Inuit families lived within 20 to 35 miles of the mission station (Brice-Bennett 1977, 103) limited research exists on how island residence fit into the Moravian worldview. This summer's archaeological surveys of Kernertaluk and Anniowaktok Islands hoped to locate previously unidentified Inuit settlements, and whether they participated in trade with the missionaries.

A pedestrian survey was conducted on Kernertaluk Island (GjCb-06 – GjCb-11) with the Hopedale students. The survey intended to teach the students how to identify burials, tent rings, and other features. The survey identified 1 large burial, 3 features (possible hunting blinds), and a series of tent rings and fox traps along the northern coast of the island. The evidence for occupation at Kernertaluk Island suggests it was a prominent spring and summer hunting ground during the historic period. Furthermore, the island is still known as an excellent location for seal hunting in the present Hopedale community.

Surveys conducted on Anniowaktok Island sought to relocate an Inuit sod house settlement as well as identify previously unrecorded Inuit sites. A two-day pedestrian survey located a number of tent rings, caches, above-ground burials, and a possible cave burial located on the north side of the island. Unfortunately, we found little material evidence to assist in the dating of these sites with the exception of fragments of a Normandy stoneware jug located in the vicinity of the cave burial. It is unclear whether the stoneware jug and the cave burial are related, but the stoneware fragments indicate activity through the 18th century.

Lena Onalik next to possible cave burial. (Arendt)

The multiple occupations further identify the entire island as archaeologically significant.

During this two day survey, the team also relocated the Inuit sod house village originally identified by Junius Bird. In 1934, Junius Bird conducted a series of excavations and surveys in the Hopedale area. His research serves as one of the earliest excavations in the area and intended to add greater archaeological detail to earlier ethnographic work on Inuit culture. He identified four sod houses (GiCb-03) on the south-eastern side of Anniowaktok Island and excavated a single test unit inside a midden located directly in front of one of the houses. Based on his observations of house size and artifact deposits, Bird claimed these houses were occupied during the Moravian period. More recent scholarship questions that assertion claiming that the site has an earlier date based on the physical description of the artifacts (Kaplan 1983, 450).

With the assistance of Nunatsiavut archaeologist Lena Onalik and Hopedale student James Karpik, we assessed the houses current preservation, mapped and photographed the four houses and excavated two test units. We completed the excavation of two test units near the entrance tunnels of two of the four sod houses. Test units revealed a very high quantity of sea mammal fauna as well as some notable artifacts, such as a whale bone snow knife, a harpoon head, Ramah ulu knife fragment, a small decorative ulu knife made of lead, and soapstone lamp fragments. European artifacts including Normandy stoneware fragments and some wrought nails date the site to the 18th century, but do not confirm Bird's claim indicating trade with the Moravians. Work at this site also revealed architectural elements, such as large boulders, wooden planks and nails within one house's entryway. Based on these excavations, I plan to return to Anniowaktok next summer to gather additional data on the occupation and life at the sod house village.

Lead ulu knife. (Arendt)

Whale bone snow knife. (Arendt)

Summary

Test excavations and surveys in the Hopedale area reveal the material evidence of a multi-dimensional Labrador landscape. Identifying unrecorded Inuit sites and testing earlier hypotheses about sod house occupations demonstrate the area's complexity as both mission and prominent hunting ground. Continued research hopes to highlight how Inuit continually adapted to a changing landscape while adding to a growing body of research on early historic Inuit life in central Labrador.

A LABRADOR MÉTIS SOD STRUCTURE IN SOUTHERN LABRADOR (FkBg-24)

Matthew Beaudoin
Memorial University of Newfoundland

During the summer of 2007 I excavated FkBg-24, a 19th century sod house on North River, near Cartwright, Labrador as part of my MA research. This site was first identified by Dr. Lisa Rankin in 2002 as part of the Porcupine Strand Archaeology Project. With my crew of Ryan Anderson, Susan Arsenault, Amelia Fay, Tamara Hurley and Jessica Pace we spent 8 weeks living in a cabin at North River and excavating 55m2 in and around the house structure.

This project is part of a larger project headed by Dr. Lisa Rankin to develop a better understanding of the post-contact period in Southern Labrador. My addition is the first excavation specifically targeted at a Labrador Métis sod structure. While there have most likely been Labrador Métis sod structures excavated prior to this project, they have been identified as either European or Inuit structures. The Labrador Métis are identified as the descendents of mixed English and Inuit marriages and are present throughout the Southern Labrador coast.

This sod house has been identified as having been built and owned by Charles Williams, an English settler from Plymouth England. Genealogical data, church records and historic maps indicate that Charles Williams married a Labrador Inuit woman named Mary, and became one of the earliest recorded Labrador Métis families in the area. The Williams family is recorded to have inhabited this structure from the middle of the 19th century until near the end of the century. This sod structure was most likely inhabited from the early fall to late spring as a salmon fishing and trapping site.

FkBg-24 consists of a sod house structure that has sod walls that measure between one and two meters thick and we were able to set up a 10m by 4m inside of the walls. A ditch is present around the structure, and is likely the result of piling up the sods to insulate the walls. There is a door opening in the center of the long axis wall facing due south with a stone stove platform in the center of the opposing wall. Evidence suggests that there was a wooden floor, walls and roof. There is also evidence of window glass. In one end of the house there is evidence of animal bone, barrels and chests for storage and in the other there is evidence for a storage pit that was possibly used as a root cellar. The stratigraphy suggests that the east end of the structure collapsed first, possibly due to fire, which allowed the west end of the structure to fill with windblown sand. 3 meters to the north of the structure is a 1 meter deep saw pit that is 1m wide by 3 meters long.

The artifacts collected represent a well diversified domestic assemblage. Over 3000 artifacts were recovered that give insight into food preparation, hunting, fishing and clothing. Some of the large numbers of artifacts found were British gunflints, lead shot, musket balls, cutlery, metal and bone buttons and glass beads. The ceramics recovered are primarily whiteware, and there appears to be more hollowware vessels than flatware. The presence of several inkwells and ceramics with text suggest that there were members of the household who were literate. Also, the presence of medicine jars and ceramics with mending holes suggests that the residents were isolated for periods of the year and were required to be self sufficient and prepared during these periods. A collection of faunal material was also recovered and is made up of avian, cod, seal, caribou, porpoise and fur bearing animals. This collection suggests that hunting, fishing and trapping were all being conducted to supply the household.

The architecture and artifacts recovered will allow me to compare this Labrador Métis site to contemporary Inuit and European sites in southern Labrador. These comparisons will be used to determine whether the architecture and artifact collection from this site resembles an Inuit site, a European site or something unique.

Overall this was a very successful and enjoyable field season. This project could not have been conducted without the support and help from the residents of Cartwright. At the end of the season a community presentation was put together at the local community hall. Many residents attended the presentation and were interested in the research conducted. It is their interest and support that helped make this field season a success.

FkBg-24 after excavation. (Beaudoin)

Susan Arsenault excavating FkBg-24. (Beaudoin)

Susan Arsenault, Ryan Anderson, Carla Pace, Jessica Pace and Amelia Fay excavating FkBg-24. (Beaudoin)

ARCHAEOLOGY IN FERRYLAND, 2007

Barry Gaulton and James A. Tuck
Memorial University

Despite another cold and wet start, this year's field season at Ferryland exceeded our expectations and revealed a few interesting surprises. The focus of the 2007 excavation was on two seventeenth-century timber-framed structures in Area F that had been partially exposed during the previous year. The first was a small 12 by 14 foot (3.65 x4.26m) Calvert-era building constructed immediately west of the first house built under the direction of Captain Edward Wynne in 1621. Careful excavation of this feature by archaeologist Aaron Miller revealed that the small stone hearth set in the southeast end was not part of the original construction and that the building initially had only a wooden floor and no provision for heating. The stratigraphic and artifactual evidence clearly shows that this structure dates from the 1620s and that the fireplace addition occurred afterwards (Figure 1). It appears then that this building started off as some sort of outbuilding alongside the first house and was later modified for a domestic purpose – a fact that fits very well with Wynne's description of a tenement built in 1622 and which "serves for a store-house till wee are otherwise provided".

This storehouse/tenement was dismantled during the second half of the seventeenth century to make way for a much larger timber-framed building possibly erected by a member(s) of the Kirke family. The construction of this second building, measuring 16 by 36 feet (4.87 x 10.97m) not only involved the demolition of the earlier structure but also a great deal of digging and levelling as well. As shown in Figure 2, all but the northern end of this structure was set upon level land dug out from the hillside. Its function, based upon a dearth of evidence for a fireplace or domestic artifacts, appears to have been for storage. Preliminary interpretations suggest that this large storehouse or warehouse was built in the last quarter of the seventeenth century, possibly in response to the destruction of the large stone warehouse at Area C by Dutch raiders in 1673.

Excavations also proceeded to the north and west of these structures to reveal the partial foundation of a large stone building, and further to the northwest, an amazingly rich midden deposit from the second half of the seventeenth century. The stone structure and midden, in fact, turn out to be unrelated. The stone foundation and walls were only partially built and the effort abandoned after its builders – while digging into the hillside to the south – encountered huge outcrops of bedrock that prevented them from completing their task. Due to the substantial nature of this unfinished structure and its proximity to the first house built in 1621, its possible that this was a first "failed" attempt to construct the stone mansion house built for George Calvert in the early 1620s. Artifactual evidence from the partial foundation supports this early date as does the fact that the thickness of its walls closely resemble the actual stone mansion that was constructed several metres east of the first house.

Several decades after this abortive attempt, a midden deposit started to accumulate just north of the foundation and it's believed to originate from a seventeenth-century house partially excavated in Area G in 2003, the majority of which still lies under the present road. Artifacts from the midden include hundreds of clay tobacco pipes dating from the second half of the seventeenth century, masses of iron nails, glass vessels and numerous fragments of decorated tin-glazed earthenware vessels such as plates, lobed dishes and even tiles.

Figure 1: 12 by 14 foot structure (in foreground) directly adjacent to the "first house", Area F. (Gaulton and Tuck)

Figure 2: 16 by 36 foot storehouse/warehouse, dating from the last quarter of the seventeenth century, Area F. (Gaulton and Tuck)

The proximity of the southern end of the Area G dwelling to this rich midden certainly suggests that the two may be associated, as does the datable artifacts. Initial interpretation of the Area G dwelling in 2003, based on its substantial H-shaped stone and brick fireplace and the nearby finds of 2 PK bottle seals, was that this may be the house of Philip Kirke, third son of Sir David and Lady Sara Kirke (Figure 3). What remains now is to find an artifact in this midden that can be attributed directly to Philip Kirke – something which unfortunately may have to wait some time as this deposit continues north under the present-day road.

Figure 3: H-shaped fireplace inside a dwelling possibly occupied by Philip Kirke, Area G. (Gaulton and Tuck)

SUMMARY OF FERROUS METAL TREATMENTS AT MEMORIAL UNIVERSITY OF NEWFOUNDLAND: 1987-2007

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Memorial University of Newfoundland
And
Colony of Avalon Foundation

Since 1987, the conservation of archaeological ferrous metals at Memorial University (MUN) has followed the methodology for bulk treatments as set out by a research team from the Canadian Conservation Institute (CCI): Charles Costain, Cliff McCawley, Judy Logan, Charles Hett and assisted by Mathias (conservation intern at CCI) (Costain 2000:11-20). What follows is an account of this treatment as it has been applied to the conservation of ferrous metal excavated from a 17th century English Plantation site at Ferryland, Newfoundland. Note that ferrous metals excavated from other sites including; a 16th century Basque Whaling site, Red Bay, Labrador, a Beothuk site, Boyd's Cove, Newfoundland, St. John's Waterfront site, Newfoundland, French Shore fishing sites, Newfoundland, Thule sites in Northern Labrador, Aboriginal contact sites in central Labrador and various iron metal components of WWII air planes from excavated in Newfoundland were included in this type of bulk treatment. The focus here, however, is on the Ferryland site as it has produced the largest collection of ferrous metals for the MUN lab to date. The Ferryland collection is probably the most comprehensive of its kind for the Early Modern Period in North America. The purpose of this short report is not only to provide information as to the procedures used in bulk iron treatments but to encourage people to examine this collection. The x-radiographs presented here demonstrate the degree of preservation and potential for this resource for research. A small selection of iron padlocks and keys are presented here to demonstrate the degree of preservation and value of x-radiography to ferrous metal research.

For information on the excavations at Ferryland refer to Tuck 1993: 293-310; Tuck 1996: 21-43; Pope 1998:63-99; Gaulton and Mathias 1999: 1-18; Nixon 1999: 57-95; Crompton 2000: 1-48; Tuck and Gaulton 2001: 89-106 and Mathias et al 2003:40-52.

A summary of the site conservation for the Ferryland Project can be found in; Mathias 1993:311-327; Mathias 1994:14-23; Mathias 1996:121-126; Mathias and Foulkes 996:97-108; Mathias 1999:1841-1855 and Mathias et al 2004:28-41. To date ferrous metals excavated from this 17th century site have been examined, x-rayed, chemically stabilized, mechanically cleaned and stored at Memorial University.

In 1987 it was decided to employ the bulk treatment method for chemical stabilization of ferrous metals treated at MUN. An aqueous solution of sodium hydroxide would be employed for this purpose. This chemical treatment would at the very least help to render the object less reactive to the storage environment and allow most of the collection to survive for future generations to study. This treatment would also remove extraneous corrosion. Note that this type of treatment is not recommended for composite metal artifacts as shown in Figures 1 and 2. The purpose of the x-radiographs was and continues to be as a method to help the archaeologist and conservator identify objects covered in iron corrosion. Without x-radiographs many important objects could easily be discarded as not being diagnostic such as those depicted in Figures 3 and 4. However, x-radiographs could be used for research in addition to guiding the conservation methods.

After working with this treatment for some 20 years, one could conclude that this type of passive bulk treatment is in fact one of the best methods of treatment, to date, for iron objects. Each laboratory should have some preliminary mineralogical analyses done on their iron artifacts to determine what phases are present in the corrosion layers. Most buried ferrous metal corrosion will consist of corrosion products from the iron object and minerals from the surrounding soils. Without chemical treatment to remove chlorides, iron excavated from a maritime environment will continue to corrode after excavation resulting in an unidentifiable object (Figure 5). For further information regarding the identification of iron mineral phases and corrosion processes refer to Selwyn (2004).

Treatment Summary

The treatment described here was designed to be a holding solution. The fact that the initial experiment showed it to remove more chlorides than other treatments was the impetus for some conservators to adopt it as a treatment. The holding solution method of the treatment provided a gentle environment in which to have objects in the solution for long periods of time without any further corrosion or the dissolution of surfaces.

X-radiographs of iron bags before and after treatment show that little physical damage is done to the object. Though corrosion layers are being softened they do stay in place until removed from the mesh bag. This allows for conservators to reconstruct objects if part of the original has been converted to corrosion over time or if the artifact was cracked during use or burial.

The summary of the treatment of iron objects is presented in Table 1. Throughout this period three – four solution tanks measuring 100cmX210cmX75cm

were used and continue to be used to house the iron in solution. Polypropylene mesh bags are used with plastic tabs (similar to those which are used to fix tags to garments in clothing stores) to hold the iron while in treatment. Bags are hung over plastic tubing allowing good solution circulation around each individual object. Approximately 50 objects can fit in one bag. The bags are designed to fit two 44cmX 37cm x-ray plates. This facilitates ease in x-radiography of such numerous objects. Objects once stabilized via chemical removal of chlorides can be rinsed to remove the sodium hydroxide and air dried. The objects can then be stored in the inert polypropylene mesh bags or removed from the bags for further analysis and mechanical treatment. At any one time the laboratory may have had as many as 10,000 objects in treatment.

From 1992 to 2007 variations in treatment time did occur because of a variety of reasons including: relocation of collections, absence of conservator, large quantities of objects and lack of finances to purchase chemicals. With regard to variation in solution concentrations the reduction from 2% to 0.5% was driven by the cost of sodium hydroxide. However the lower percentage was found to be more efficient in removing chlorides.

The lengthy treatment time for objects excavated in 1999 was because for some of this time the solutions were considered holding solutions and therefore no solution changes were conducted. Though not realistic in terms of space and time this long treatment would be the ideal treatment for ferrous metals. The time spent in the holding solution dissolved the extraneous corrosion allowing penetration of the solution to the metal surface for the solution changes which followed. A more realistic treatment would be to store objects in the holding solution for four months followed by two to three years of solution changes. Solutions should be changed at least monthly but ideally twice a month. As stated above some preliminary analyses should be conducted to characterize the metal and its burial environment. An example of such work for the Ferryland site follows. Note that this was done as an MSc research project and much assistance was provided by the Earth Science Department at MUN. Many departments of Earth Science/Geology have the capabilities to conduct such research and would likely help out with a non-rock project.

For the Ferryland site the corrosion halo is a highly siliceous material with iron oxides and hydroxides forming secondarily. The silica rich layer requires about four months of soaking in aqueous 0.5% sodium hydroxide for dissolution. Iron phases identified for the nails excavated from the Ferryland site are presented in Table 2. Chloride concentrations for soil samples from areas of excavation ranged from 150 to 400 parts per million (ppm) for domestic areas and as high as 1400 ppm for waterfront industrial areas. Analysis using an electron microprobe to map element concentrations in weight percent (wt %) on iron cores and corrosion halos for nails indicated that; Cl ranged from; .02 – 0.15 wt % in corrosion halo; 0.02– 7.33 wt % for the iron core; 0.02 – 4.70 wt % for iron/corrosion interface. In summary most of the destructive chloride ions reside in cracks in the iron core. The corrosion halo is relatively non-reactive to its environment. Though the corrosion halo is unsightly, once chloride ions are removed from the iron core, any remaining extraneous corrosion will essentially act as an inert barrier layer.

Table 1. Summary of Ferrous Metal Treatment at Memorial

Wrought Iron Bulk Treatment – aqueous sodium hydroxide			
Area of Excavation	Solution Concentration	Number of solution changes	Time in treatment (years)
1992	2% - 1%	7	2
Areas C, B and D/1993, 1994	1%	9	3
1995	1%	6 - 10	1
1996 – nails	0.5%	6	3
1996 – non-nail	0.5%	10	3
1996 – heavily corroded	0.5%	15	3
Area F/ 1997	1%	15	2
Area F/1998	0.5%	5	2
Area G/1999	0.5-1%	23	8
Area F/1999	0.5-1%	23	8
Area F/1999	0.5-1%	23	8
Area G/1999	0.5-1%	23	8
Area G/1999	0.5-1%	23	8
2000/2001	0.5%	20	6
2002	0.5%	23	4.5
2004	0.5%	20	3
2005	0.5%	12	2
2006	0.5%	Still in treatment	
2007	0.5%	Still in treatment	

Table 2. Average carbon content for nails – element % by stoichiometry (Mathias 1998)

Iron phase identified by colour	Carbon concentration (%)	Iron phase identification by carbon concentration (Higgins, 1973)
Light grey	0.612 – 0.617	40% -ferrite 60% - pearlite
Middle grey	0.707 – 0.753	20% - ferrite 80% - pearlite
Dark grey	2.542	40% - cementite 60% - pearlite

Figure 1: Composite artifact, CgAf-2:264244, after treatment. (Mathias and Smith)

Figure 2: Composite artifact, FkBe-3:60, before treatment. (Mathias and Smith)

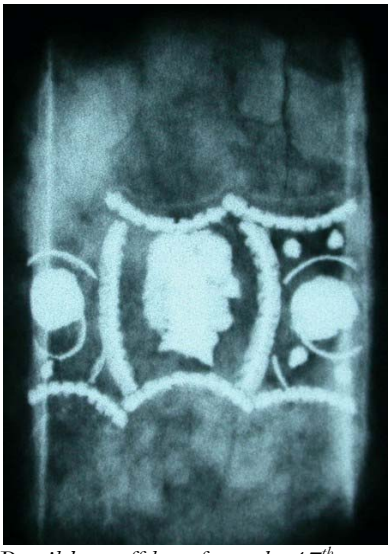

Figure 3: Possible snuff box from the 17th century, CgAf-2:469300 E587. This object is made of silver points, iron and possibly tortoise shell. The iron corrosion covers the surface. Without an x-radiograph one would possibly have identified this object as a nail head. (Mathias and Smith)

Figure 4: Iron boot spurs, CgAf-2:219327 (left) and CgAf-2:238256 (right). (Mathias and Smith)

Figure 5: Iron object, CgAf-2: 217224, showing signs of deterioration because of corrosion in the post-excavation environment. (Mathias and Smith)

Padlocks and Keys from CgAf-2.

A small collection of iron objects excavated from Ferryland will be described here to show the vast amount of information which could be garnered from the ferrous metal material culture of Historic sites in this province. Often overlooked in collections, ferrous metals not only demand a great deal of money, time and space to conserve and store but they represent the fabric of colonization as they were used to build, facilitate economic growth through the fishing industry, defend and decorate for those early Europeans living in Newfoundland and Labrador. Included here will be a description of some of the padlocks and keys uncovered over 16 years of excavation along with associated x-radiographs.

Padlocks have been in use from the early Medieval Period and manufactured using sheet wrought iron, wrought iron and cast iron (Noel Hume 1969: 249). These early barrel padlocks were used into the 18th century. The ball padlocks followed and were in use by the late 16th century in England and have been excavated from early 17th-century sites in America (Noel Hume 1969:250). Late in the 17th century the forerunner to the heart-shaped padlock of the 18th century appears with a hinged keyhole cover. This type of padlock is described as bag-shaped and had a flat front and back (Noel Hume 1969:250-251). Keyhole covers became an ornament of decoration early in their manufacture giving some status and ownership to the padlock (Noel Hume 1969: 243-252). Brass keyhole covers do not seem to date before the 19th century (Noel Hume 1969:251). Figures 6- 12 show a selection of padlocks excavated at Ferryland. These include the following objects: CgAf-2: 374626 event 411, CgAf-2: 490395 event 629, CgAf-2:503434 event 637, CgAf-2:503480 event 648, CgAf-2:503611 event 247, CgAf-2:503622 event 648, CgAf-2:503791 event 676 and 109619 event 145.

Most of the padlocks, discussed here, were found in a domestic area of the gentry sort and date to the early 18th century. One would expect some nice consumer goods would be found associated with those of a gentle status and it is not surprising that following the Dutch and French raids of the 17th century that the people of Ferryland would want to secure their goods. Also as the colony grew one would have to protect their material goods from others living in the plantation.

One early to mid-17th century padlock, CgAf-2:109619, was excavated from a middling sort domestic structure, associated with the forge. Interestingly few typical 17th century padlocks were uncovered at Ferryland over the past 16 years of excavation. A comparison of the x-radiograph of the ball lock in Figure 12 with the other padlocks in Figures 6 – 11

demonstrates the fragile nature of this early padlock. This suggests that the general absence of 17th century padlocks at Ferryland is because they have not survived in the burial environment. Most of the Ferryland padlocks, excavated to date, fit the bag-shaped padlock description and are early 18th century (Hume 1969:250).

Padlock, CgAf-2: 490395, had an intact key plate (Figure 7). The difference in density of the materials, shown in the x-radiograph, indicates a difference in material for the key plate, a copper alloy, from the iron body. This brass keyhole plate dates this padlock to the 19th century according to Noel Hume (1969:251). Generally the researcher will only have the exterior surface of an artefact in which to examine and do research. The x-radiographs of these objects reveal the internal mechanism associated with the padlocks which would otherwise be unavailable to examine.

An x-radiograph of keys, Figure 13, shows the variation in size and shape of the keys. The larger keys would likely be used for door locks with the smaller ones possibly fitting a padlock. The variation in preservation as shown by the x-radiograph demonstrates that the fragile small keys are unlikely to survive burial while the larger more robust keys do survive.

This short report represents only a small fraction of information which could be garnered from this extensive ferrous metal collection. It is hoped that in the near future graduate students working with MUN faculty members will find this collection as interesting as we conservators have stabilizing this material culture.

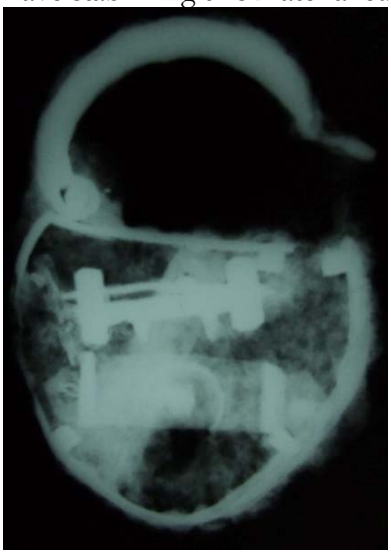

Figure 6: Bag shaped padlock, CgAf-2:374626. (Mathias and Smith)

Figure 7: Padlock with brass keyhole cover, CgAf-2:490395, probably 19th century. (Mathias and Smith)

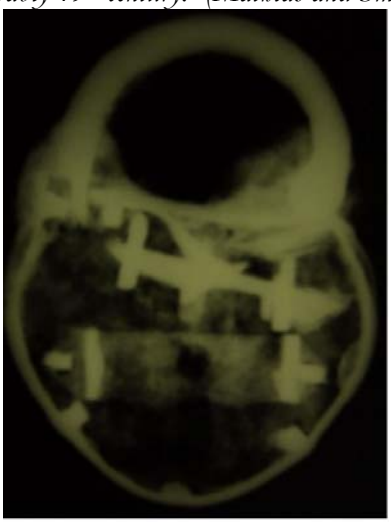

Figure 8: Bag shaped padlock, CgAf-2:503434, similar to 374626. (Mathias and Smith)

Figure 9: Padlock CgAf-2:503480, possibly late 18th century. (Mathias and Smith)

Figure 10: Bagged shape to triangular shaped padlock, CgAf-2:503611. (Mathias and Smith)

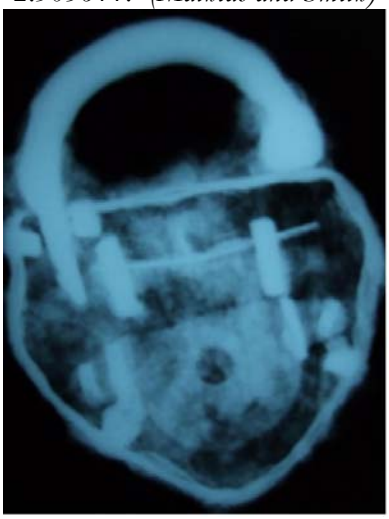

Figure 11: Bagged shape to triangular shaped padlock, CgAf-2:503622. (Mathias and Smith)

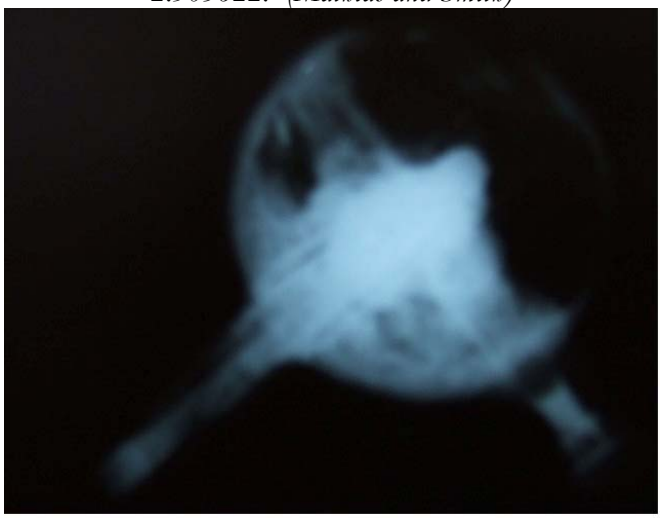

Figure 12: Ball lock, CgAf-2:109619 E145. (Mathias and Smith)

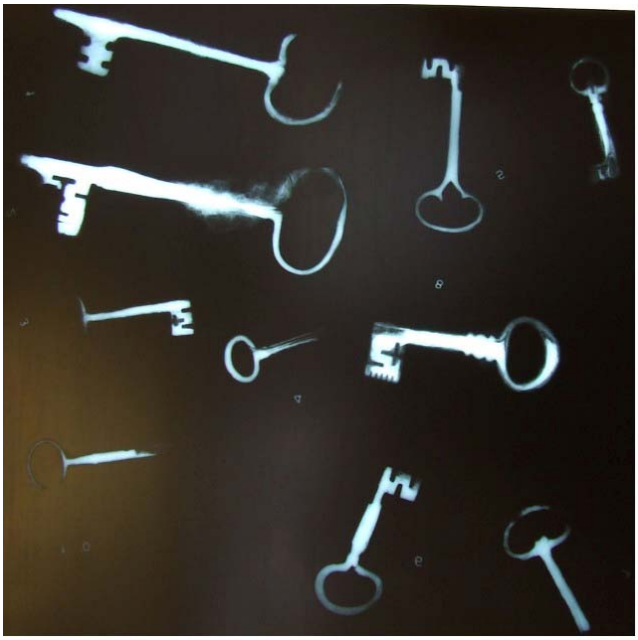

Figure 13: A collection of keys excavated at Ferryland. (Mathias and Smith)

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GERALD PENNEY ASSOCIATES LIMITED - REPORT OF ACTIVITIES 2007

Gerald Penney & Robert Cuff
Gerald Penney Associates Limited

St. John's Harbour Interceptor Sewer (HIS) Phase 3

Monitoring of sewer excavations began on 19 July and continued up to 21 November. These involved the excavation of a significant portion of Water Street between Prescott Street and Cochrane Street, as well as extensive excavations towards the harbour for outfalls at Jobs Cove and Queens Cove. Fourteen new archaeological sites were recorded, and approximately 1100 artifacts catalogued. Excavations steadily and predictably encountered building foundations from the "intra-inferno" period (1846-92). Few features had the documentary evidence and artifact assemblage to indicate a date prior to 1846, and there was no consistently encountered 1846 fire horizon.

One of our primary initial tasks was to ground-truth presumptions based on documentary and historic cartography evidence as to the re-routing of Water Street. Cartography indicated that the alleyway between the King George V building and Harvey's offices approximated the course of Water Street, prior to it being re-routed after 1892. Encountering the foundations of two structures at Queens Cove (a grocer's on the north side of the street and an auctioneer/ commission agent's on the south side of "old Water") supported our initial theory in broad strokes and, coupled with other examples of foundations encountered in the middle of Water Street, allow for some confidence in our adjusted digital mapping.

Working up Jobs Cove/Prescott Street, one observation of interest is the extent and methodologies used to "make ground" extending out onto the harbour, after the 1892 great fire. Notably, this included the installation of a brick/amalgam "pile cap" – likely formed by driving closely-spaced piles and then layering rubble and spreading dry cement over them. Often there was a very strong horizon of brick rubble, again hypothesized to date from the 1892 fire. Towards the intersection of Water and Prescott much of the excavation involved the laborious removal of bedrock, with little potential disturbance of historic resources.

Along Water Street and also harbour side of Queens Cove the location of historic sewers and drains added to our understanding of positioning of streets and structures. The stone and brick constructed sewers are quite interesting and certainly await further research.

When practical difficulties of excavation in bedrock caused some delay, the contractor (Modern Paving Limited) assisted in field-testing our methods by locating a portion of the Custom House foundation,

beneath Water Street across from the Harbour side Park. The principal public building in the Kings Beach area between 1848 and 1892, investigations enabled us to uncover, measure, photograph and survey a significant proportion of the foundations of this impressive structure. The compilation of reliable survey data for this structure will greatly assist in mapping and anticipating historic subterranean features in the downtown.

Sites

Water Street East 1 (CjAe-65) at the southwest portion of the intersection of Water Street and Prescott Street, near the sidewalk of Fortis Building, is a brick (with some stone) mortared foundation. Approximately 0.6 metres high and 1.1 metres long it is 1.5 metres below the surface of the asphalt. Only a small portion of the foundation was exposed during excavation, the remainder likely extends southward towards the harbour.
Date(s) excavated: 20 July

Water Street East 2 (CjAe-66) located at Water Street from Prescott Street to St. John's Lane, in particular the eastern end of the street. Here several stone features remain from the block of building(s) that stood on the landward side of pre-1892 Water Street (#114-134), between Prescott Street and a small lane (now St. John's Lane). A collection of 130-140 artifacts includes various types of pottery, melted wine bottles, copper Newfoundland one cent pieces, copper door hardware, and various tobacco pipe fragments. Most were recovered from what would have been the interior of the various structures.
Date(s) excavated: 24 July - 24 September (not continuous)

Queens Cove 1 (CjAe-67) is comprised of two areas at the bottom, or southern, end of Queens Cove. One is at the very base of the cove, the other 16-18 metres north, up the street. Most of the site and cultural material recovered lay underwater, and was removed by backhoe. A collection of 85 artifacts were recovered, most of late nineteenth to early twentieth-century manufacture, including 35 inkwells. The non-inkwell ceramics are predominantly White Granite ware (post c.1840) and Rockingham-type.
Date(s) excavated: 20-23 July

Queens Cove 2 (CjAe-68) at Queen's Cove, its southern section near the bottom of the cove, while the northern portion is approximately midway up the street. The site consists of stone foundations from two separate structures. The southern most structure (Structure 1) is a lengthy north/south foundation. The other (Structure 2) is three attached foundations, two running east/west, being the south and north walls of a building foundation, and the entire length of the east wall, running north/south. Structure 2 is pre-1892 #89 Water Street. Artifacts (34) were mostly from mixed deposits.
Date(s) excavated: 26-31 July

Water Street East 3 (CjAe-69) extends from just east of Prescott Street to the small parking lot on the west side of the T.I. Murphy Centre. It is a section of a stone-lined sewer, with a plank base, and a more modern stone tunnel containing an iron gas main pipe and a stone wall of unknown function. It runs parallel with the buildings that once stood between Prescott Street and the lane now called St. John's Lane (CjAe-66). The "tunnel" containing the iron water pipe runs more in line with the modern direction of Water Street. A stone wall of unknown function is at the east end of the known limits of the site. Most of the 50 artifacts recovered are from the sewer.
Date(s) excavated: 26-27 July. Other portions of the sewer encountered sporadically during excavation for trunk sewer pipe in the east-bound lane. The U/I stone wall feature was recorded on 10 October.

Queens Cove 3 (CjAe-70) is located approximately mid-way up Queens Cove, east of the alley between the Harvey's Oil office building (#87 Water Street) and King George V Institute (#93 Water Street). It is a section of stone-lined, plank-bottom sewer whose walls are 1.15 metres high and the width of each of two planks is approximately 0.5 metres. The section appears to be a junction, possibly where the sewer from Water Street joined with the sewer which came down old Gambier Street. Only a corner section of the stonework remains. In the north wall of the portion that continues past the Gambier Street join, a small opening in the higher stonework contained a ceramic pipe. Artifacts (54), including some metal textile-related materials were trowel-excavated from the bottom 25-30 cm of silt.
Date(s) excavated: 30 July

Queens Cove 4 (CjAe-71) is located from the top part of Queen's Cove, opposite King George V Institute, to the bottom of the stairs on the west side of the War Memorial. It extends west to where Holloway turns onto Water Street and consists of two separate structures. Structure 1 is a single foundation at Queens Cove and likely dates from prior to the 1846 fire, while structure 2 is the remaining foundations and related features which form the block of structures that ran from Holloway to old Gambier Street (#92-102 Water Street), burnt during the 1892 fire. Artifacts mostly relate to the 1892 fire and destruction, although there is an early nineteenth century collection as well.
Date(s) excavated: 1 August-29 October (not continuous)

Prescott Street 1 (CjAe-73) is immediately north of (CjAe-74), is an area 35 x 25 metres where several large

foundations of reinforced concrete were found *in situ*. These date from the 1950s and are remnants of a fish plant/ice making facility. Significant amounts of brick rubble appear to have been laid down to consolidate organic silt and wooden piles which occur at a depth of 3.2 metres.

Date(s) excavated: 8-12 August

Prescott Street 2 (CjAe-74), is at the southern end of Prescott Street and encompasses an area 35 x 25 metres at the intersection of Prescott and Water Streets. Here several foundation walls were built on top of a pile cap constructed of 1892 fire rubble dumped over wooden piles. Shown on Goad's 1893 map they are associated with the nearby Hunter property. Another feature was an 1893 oval brick sewer cut into the bedrock at a depth of four metres.

Date(s) excavated: 13-24 August

Water Street East 4 (CjAe-75) is on Water Street between Holloway and St. John's Lane and contains several stone foundations and other structural and related features from the block of buildings that stood on the landward side of pre-1892 Water Street between Holloway on the east and a small lane to the west. The stone foundation is approximately 25 metres wide and includes16 sections. There is a cobble floor, one section of wooden floor and a metal box attached to/up against one of the stone foundations. Artifacts retrieved from the interior of these structures include copper coins, a sample from a stack of pottery, and others typical of the period.

Date(s) excavated: 16 August-26 October (not continuous)

Holloway Street 1 (CjAe-76) is located at the south end of Holloway Street and extends into Water Street and up Holloway for an unknown distance. It is a sewer with dry-laid stone sides and a graded wooden plank base. Its walls are 0.85 metres high on the interior and have an interior width of 0.85 metres. Artifacts include wine bottle fragments collected from a strata next to the sewer.

Date(s) excavated: 14-15 August

The Custom House Site (CjAe-77) is on Water Street, south of the War Memorial and north of Harbour side Park; between Queen's Cove and Gill's Cove. It comprises 16 features from the Custom House (1848-1892) including seven external wall features, three internal wall/partition features, three sections of floor (two mortar and one brick), a section of chimney/fireplace base, part of the outer retaining wall, and a possible pillar-hole in one of the foundations. These features make up the southwest corner and front of the building foundation. Most artifacts (77) were recovered from rubble layers.

Date(s) excavated: 23 August-3 October (not continuous)

Water Street East 5 (CjAe-78) is located partially at the western end of the alley between the King George V Institute and Harvey's Oil office building, off Queen's Cove, and partially in the northern end of the parking lot which borders the west end of the alley. It consists of three foundations and one brick feature. The features are foundations of buildings that existed on the harbour side of Water Street, approximately from the base of Holloway Street westward and are pre-1892. The date of the brick feature is uncertain.

Date(s) excavated: 4-5 October

Water Street East 6 (CjAe-79) is on Water Street between Hiscock's Rentals and Harvey's Marine Base building. It extends north onto the street, to include the area up to the southern entrance to the Sir Humphrey Gilbert Building. Consisting of seven features all are foundations or similar type features except one section of a possible stone sewer. A small deposit extending under the sidewalk is posited to be from the late eighteenth-early nineteenth century.

Date(s) excavated: 11 October-23 November (not continuous)

Water Street East 7 (CjAe-80) is at the base of the stairway on the west side of the War Memorial, Water Street. It is a stone walled sewer whose interior is 65-70 centimetres wide and at least 1.0 metre high and does not have any visible base or bottom. It is possibly a sewer or surface drain that flowed down or under old Gambier Street.

Date(s) excavated: 17 October

Water Street East 8 (CjAe-81) is located along Water Street, from just west of Gills Cove (in front of the eastern end of Harbour side Park), to near the eastern end of Hiscock's Rental building. It consists of seven features, six structural (walls) and one large drain (?) opening, including portions of at least three buildings.

Date(s) excavated: 5-16 November

Sewer/drain tie-ins at Queens Cove, possibly associated with old Gambier Street and/or the harbour masters office etc. at the Kings Wharf (30 July). (Penney)

Some of the maze of stone connecting sewers, Water near Holloway Street. The sewer at left is of stone, and can be seen to take in ceramic drains from surrounding former structures. At right, a concrete sewer of more recent construction (14 Aug). (Penney)

Ovoid double-lined brick sewer, presumed to date from 1893, showing the ceramic trough and underlying channel (24 Aug). (Penney)

Presumed to be a drain that carried Marsh Brook underneath premises east of Gills Cove (14 Nov). (Penney)

A portion of a brick/amalgam pile cap, at Jobs Cove. It is posited that rubble was used to "make ground" after the 1892 fire by sprinkling dry cement on it in layers much as salt is spread on fish in salt bulk (14 Aug). (Penney)

Pits in the base of the pile cap indicate that it was created directly on wooden piles (14 Aug). (Penney)

Layer of brick rubble intermingled with ash from the 1892 fire (19 Sept). (Penney)

A portion of a pottery lens can be seen directly below this drain pipe, resting on top of a wood-block pavement, seen at bottom, right (13 Aug). (Penney)

Stacks of fire-damaged bowls, in situ (8 Oct). (Penney)

1902 painting "Old Custom House 1848-1892" by J.W. Nichols, presumed to be based on a 1851 drawing by W.R. Best and coloured through Nichols observations from life. (Penney)

Initial exposure at the Custom House excavation, later determined to be the west perimeter wall. Note the layer of brick rubble visible in the profile at either end of the brick wall (24 Aug). (Penney)

Sketching the west perimeter wall (24 Aug). (Penney)

The floor of the Custom House porch. The square depression may have been to seat one of the columns (28 Aug). (Penney)

A clay tablet, bearing the imprint W. White, Glasgow, a known manufacturer of clay pipes (1805-1955). Approximately 40 of these tablets, some plectrum-shaped as above, some square with a triangular imprint, and some rectangular, were recovered from rubble on bedrock below the sidewalk near Long Bros Printers. Hopefully a reader will be able to identify their function. Advertising? A premium? (Penney)

Labrador Uranium Exploration

A dramatic increase in the price of uranium since January 2005 has fuelled increased exploration in the Central Mineral Belt of Labrador, including revived interest in deposits first established by BRINEX almost 50 years ago, and also in "new environments," such as the Benedict Mountains, south of Makkovik. In 2007 we conducted five Historic Resources assessments for uranium mineral exploration clients:

Tessiujaluk/Benedict Mountains (permit # NG 07.02), July, for Monster Copper Corporation.

Kanairiktok Bay (PAO 07.20), July, for Bayswater Uranium Corporation.

Jacques (Big) Lake (NG 07.05), August, for Aurora Energy Resources Inc.

"Bruce River" near Warren Lake (NG 07.06 and PAO 07.34), September, for Mega Uranium Ltd.

Stag Bay/Benedict Mountains (NG 07.09), October, for Silver Spruce Resources Inc.

No historic resources were observed in immediate proximity to the proposed drill locations. At Mustang Lake a relatively intact campsite was recorded, presumed to date from previous mineral exploration by BRINEX during the 1960s and 1970s and detritus from previous mineral exploration was observed at many locations.

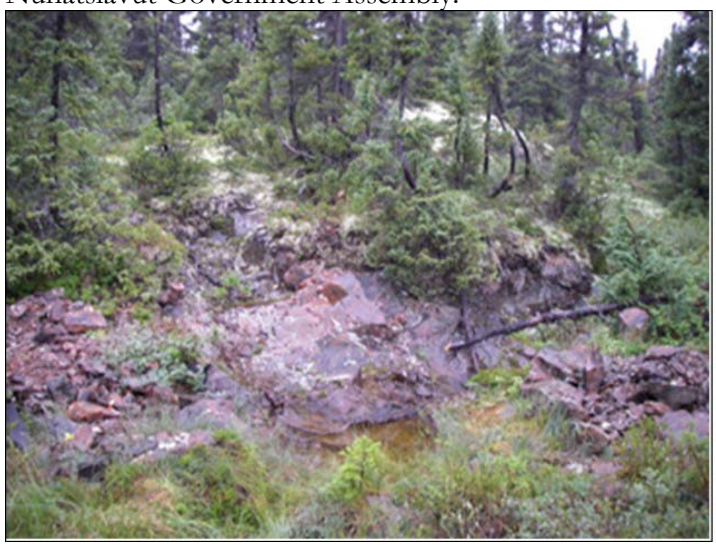
Features of interest observed from aerial survey were recorded at two coastal locations near Tessiujaluk. Proximate to the Mega Uranium campsite at Chaulk Lake an ethnographic site consisting of remnants of a tilt and a tent/tepee site was measured, photographed and recorded. At Kanairiktok Bay four tent rings were recorded at surface on a point of land north of a small cove on the southeast side. From ethnographic information it is posited that the site is likely of twentieth century Inuit cultural affiliation.

Taking advantage of downtime at Chalk Lake necessitated by weather, and a scheduled safety meeting of company employees and prospectors, Mr. Penney made a presentation relating to the requirements of the Province and the Nunatsiavut Government, including recognition, recording and reporting spot finds and sites,

etc. This bore almost immediate result in terms of a find by a prospector of a stone tool base section discovered on the north shoreline of Warren Lake. The location of a USAF helicopter crash which company employees had observed from the air, photographed and recorded using GPS, was entered into the crash site inventory.

Generally, field activities in Labrador were characterized by further refinement of process under the assessment and reporting regime of the Nunatsiavut Government. Each investigation featured a community consultation, a requirement of the *Labrador Inuit Land Claims Agreement*. Although the gathering of ethnographic information remains standard practice in areas under the jurisdiction of the PAO, the formalization of the community consultation process, it is felt, had the effect of ensuring fuller participation. Further, the practice of copying reports to the local Inuit Community Governments concerned had the effect of encouraging both feedback on the investigation at hand and interested co-operation in future investigations. For instance, the results of our documentary research into the curious incident known as the Stag Bay Gold Rush of 1923 were much appreciated locally.

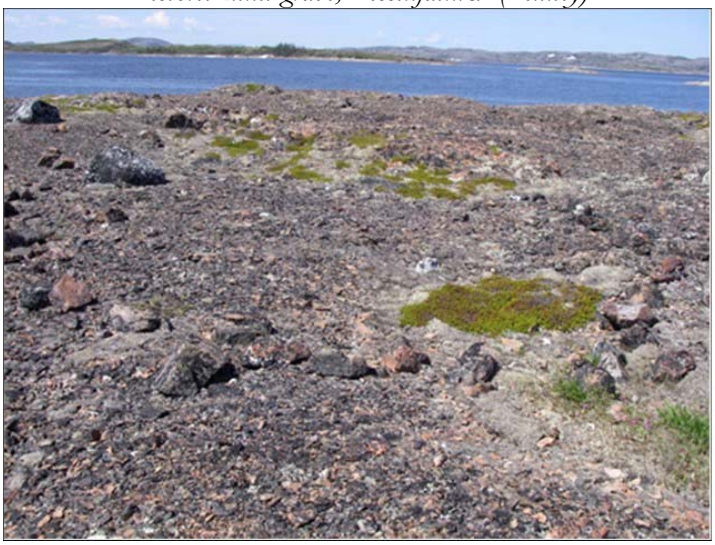
Of course, as 2007 drew to a close there were other community consultations related to uranium prospecting in Labrador, as some projects had advanced to a point where mining operations were being proposed. Concerns have been expressed as to the environmental and lifestyle impacts of development. At present a motion to declare a moratorium on uranium mining and development is pending before the Nunatsiavut Government Assembly.



Evidence of previous mineral exploration near Jacques (Big) Lake. The reddish rock is a 25+ year-old exposure of uranium-bearing rock. (Penney)

Looking north across Tessiujaluk [NTS Tukialik Bay], a modern radar installation in the foreground. Settler and Inuit families of Tessiujaluk lived on the west side of the Bay – to the left in this image. (Penney)

Historic Inuit grave, Tessiujaluk. (Penney)



Kanairiktok Bay tent ring #2. (Penney)

Mr. Walter Greening draws a peg at the tent site, Chaulk Lake. (Penney)

Projectile point base (possibly Maritime Archaic) from WarrenLake-1 (GdCf-01). (Penney)

Seasonal hunting/fishing camp, lower left, at Adlavik Bay. (Penney)

ARCHAEOLOGY IN TERRA NOVA NATIONAL PARK

Jenneth Curtis
Parks Canada

In 2007 Terra Nova National Park conducted two archaeology projects: an assessment of a new trail development at Salton's Brook and a monitoring project for known sites throughout the park.

With plans for a new trail to be constructed across the brook from the Visitor Centre an archaeological assessment was conducted in the spring of 2007. The goal of this assessment was to determine the impact of the construction on any cultural resources present in the area. Previous archaeological (Tuck 1980) and historical (Major 1983) research indicated that this location was the site of a sawmill operation during the first half of the 20th century. The assessment, conducted by the author with the assistance of park staff, consisted of pedestrian survey of the trail route looking for indications of cultural resources visible on the surface, supplemented by the excavation of shovel test pits in areas of high potential. Three cabin sites representing mill-workers' habitations were identified along with the remains of a road leading to the brook.

Cabin Site #1 is an oblong clearing, 16 metres long and 7 metres wide. It contains several clusters of artifacts on the surface including fragments of glass and metal, and several pieces of cast iron stoves. A small, moss covered mound is located at the north end of the clearing. A test pit on the edge of this mound recovered glass bottles, metal cans, nails and fragments of canvas flooring. This midden probably relates to the abandonment of the cabin, when any unwanted/non-portable items were left behind in a pile. Test pits and clearing of the trail along the west side of this cabin site yielded additional artifacts. Beneath the spruce trees at the northeast corner of the clearing are two small moss covered mounds with metal and glass artifacts protruding from them. These indicate a midden that probably formed during the use of the cabin as the inhabitants discarded empty cans, bottles and other refuse off to the side.

Cabin Site #2 is a rectangular clearing, 9 metres long and 7 metres wide. It includes a large, low mound in the centre with a couple of metal artifacts poking out. This is likely a refuse midden similar to the one in the first clearing – resulting from abandonment of the cabin. Stove parts are scattered around the edges of the clearing.

Located to the northeast of cabin sites #1 and #2 is a third clearing that likely represents another cabin site though no artifacts or features were observed. This clearing is more overgrown and did not require testing for the trail, so it is quite possible that cultural features are present. A wooden plank with a cross piece nailed to it may be observed in a cluster of trees at the northwest edge of this clearing.

Cabin Site, Salton's Brook, Terra Nova National Park (Curtis)

Artifact Analysis

The majority of artifacts, and in particular, large metal artifacts, were left on site at Salton's Brook. In addition, efforts were made to minimize disturbance to the site. Middens, for example, were identified but not excavated and test pits were restricted to potential trail routes. These actions were taken to preserve the site and its cultural features *in situ*, while providing opportunities for interpretation along the trail. Artifacts that were visible on the surface and left on site were documented with provenience numbers and photographs. Artifacts were collected from test pits and from an area disturbed by the trail in the northwest corner of Cabin Site #1.

The most common artifact on the site is the cast iron stove, or rather pieces of it. A total of eleven pieces were observed and left on the site. One piece, a name plate "Ensign", was collected for conservation. The wood-burning stove would have been the centrepiece of the cabin providing both heat and a means of cooking. The fragments of canvas flooring provide additional direct evidence that cabins were built on the site. Though the fragments are too small to reveal the pattern, it consisted of a dark red background with a bright green design.

Salton's Brook Artifacts, Terra Nova National Park (Curtis)

Three whole glass bottles were recovered including a brown Javex bottle with the slogan "Javex Whitens". These bottles are typical of the first half of the 20th century with threads for screw-on metal lids. The ceramic sherds recovered are all plain white fragments, however a basal sherd from one cup is marked "occupied Japan".

Based on these findings recommendations were made regarding the trail route and construction methods to minimize the impact on cultural resources while providing visitors with the opportunity to experience the cultural and natural heritage of the area.

During September 2007 Terra Nova National Park conducted a monitoring project for all known sites within the park. These sites were originally recorded during an archaeological survey led by Tuck (1980) in 1979 with follow up excavations at several sites completed by Sawicki (1981) in 1980. Schwarz (1993) undertook additional salvage work at the Bank site in 1992.

This year's research team included a Parks Canada archaeologist (the author), park staff and representatives from the Federation of Newfoundland Indians and Miawpukek First Nation. At each site we:

- recorded the location by GPS
- examined the area noting visible cultural features and artifacts
- noted site condition and disturbances
- assessed potential threats
- took photographs
- collected artifacts that were exposed on beach surfaces

Among the 21 recorded sites are 9 Aboriginal sites, 11 Historic sites, and 1 site with both Aboriginal and Historic components.

The Aboriginal sites represent 5000 years of human history in the park and all of the cultural groups known to have inhabited Newfoundland. Several of the sites are multi-component thus 5 Maritime Archaic, 4 Palaeoeskimo (both Groswater and Dorset), and 1 Recent Indian component are present. In addition 4 sites could not be assigned to a specific group due to a lack of diagnostic artifacts. These sites are characterized by scatters of lithic tools and flakes that are emerging from along the eroding coastline. Traces of charcoal at some of the sites hint at the presence of buried cultural features. The collected artifacts include a biface, two endblades, a bevelled-slate tool, and a chert core.

Artifacts Collected in Terra Nova National Park (Curtis)

The Historic sites include 6 sawmill sites representing the importance of the lumber industry to this area during the first half of the 20th century. These range from small processing stations to large sites with

living areas. Five additional historic sites are represented by traces of various structures.

Sawmill Site in Terra Nova National Park (Curtis)

The results of this monitoring project have thus provided up-to-date location and condition information that will form the basis for further cultural resource management and archaeological research activities within the park.

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ROOMS PROVINCIAL MUSEUM 2007 ANNUAL REPORT

Kevin McAleese

Rooms Provincial Museum

2007 Highlights

Elaine Anton, Collections Manager, continued to improve the organization of the Museum's collections. Assisted by various MUN undergrad and grad-students, she unpacked and sorted a large number of boxes of artifacts returned to us from various researchers. New volunteers are always welcome, so please contact myself or Elaine @ (709) 757-8076 eanton@therooms.ca

Another major task for Elaine was co-ordinating the exhibit "Finest Kind," a combination Museum, Archives and Art Gallery artifacts/images/objects displayed in the Rooms Atrium. Elaine also played a lead role on the committee developing a new Museum and "Rooms-wide" Collection Policy.

All this collections management work greatly facilitates artifact research, exhibit curation and artifact collection loans. This year Elaine and I facilitated about 15 artifact loans to community museums and heritage interpretation centres throughout the Province.

Exhibits I developed at the Rooms included a display of recent Labrador Inuit photographs, co-curated with the photographer Candace Cochrane (Quebec-Labrador Foundation).

Throughout the year I continued to develop a new Métis heritage exhibit at the Rooms Provincial Museum's Labrador Interpretation Centre (LIC) in North West River. This Métis history exhibit is provisionally scheduled to open in 2008.

Additional curatorial exhibit work also included developing a small show of two very special painted caribou skin Innu coats. Those items, jointly curated with the Innu Nation, will be exhibited at the LIC early in 2008. The Archaeology & Ethnology Unit also contributed a Mi'kmaq birchbark map to the exhibit "Defiant Beauty," a Rooms Art Gallery show on historic paintings of Labrador Innu. I also undertook a loan of Rooms Museum Beothuk pendants to the Royal Ontario Museum for their exhibit "Canada Collects," which opened in fall 2007.

In terms of educational programming and collections research, I helped re-develop the Rooms Museum "Inuit in Labrador" school program. At the Canadian Archaeology Association Conference I presented a paper on NL Collections held in various foreign museums, and their potential use by researchers here.

As for field research, under Permit #07.31 I conducted a brief survey at the bottom of Red Indian Lake, accompanied by the local historian, Bert Taylor. Mr. Taylor and I re-visited a number of historic Beothuk site locations noted in the region's historic documentation. I assessed their potential for future research, especially in regard to recent local environmental change caused by fluctuating lake levels. Artifact collections from some of these sites, held at the Canadian Museum of Civilization, were briefly studied during the fall. This research will be presented in a future Beothuk archaeology/Island of Newfoundland environment exhibit.

I also briefly excavated with Steve Mills at Placentia and Bill Gilbert at Cupids. In both cases I plan to have them assist me in developing exhibits at the Rooms Museum, or in those communities, to highlight their ongoing research.

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Archaeology and Ethnology
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THE COW COVE AND FRENCH ISLAND TICKLE EXCAVATIONS - 2007 FIELD SCHOOL SUMMARY

John Erwin
Memorial University

The 2007 Memorial University Archaeological Field School continued excavation at Cow Cove 3 (EaBa-16) and the French Island Tickle (EaBa-19) sites. Following two days of orientation in St. John's on June 25-26, students joined staff in Coachman's Cove on June 29 to set up camp and prepare the sites for excavation. Excavations began on July 1, 2007, with the opening of eleven 1x1 square units at Cow Cove 3. As in previous years, students were provided training and experience in archaeological field and laboratory work. The focus of the 2007 field school was on the excavation of Cow Cove 3, a multi-component Groswater and Dorset Palaeoeskimo site which has been the subject of five previous seasons of student excavations from 2002-2006. Students gained additional experience through the limited excavation of French Island Tickle, a site containing both historic (French) and prehistoric (Dorset Palaeoeskimo) components.

2007 Memorial University Field Crew and Staff. (Erwin)

Cow Cove 3 Excavation Results

Since the initial season of excavation in 2002, our work at the Cow Cove 3 site has revealed the presence of Groswater and Dorset Palaeoeskimo components, including the remains of a single Dorset house structure with associated open-air activity areas. Our excavations have also resulted in the recovery of thousands of chert, rhyolite and chalcedony waste flakes, hundreds of stone tools, and a handful of organic tools belonging to both the Dorset and Groswater cultures.

The 2007 investigations at Cow Cove 3 focused on the partial infill of the checkerboard excavation which was opened up in 2006 along the eastern boundary of the site. The purpose of this investigation was to further determine the relationship of the Groswater and Dorset occupations, and to investigate an area which had produced organic preservation and the first evidence of organic tools on the site. In summary, a total of eleven 1m x 1m square units was excavated in 2007, bringing the total number of units excavated at Cow Cove 3 to 130 (see Figure 1).

The excavation along the eastern margins of the site continued to reveal areas of open-air lithic reduction and organic tool manufacturing activities, as well as evidence for soapstone working. Hundreds of soapstone flakes and numerous faunal remains were found throughout much of the excavated area in 2007. A few examples of utilized soapstone vessels were also recovered, which represents the first direct evidence of soapstone vessel use on the site. A single small worked piece of bone which appears to be a portion of a leister or fish spear was the only organic tool recovered during the 2007 field season. Notwithstanding the relatively low frequencies of artefacts, organic or otherwise, from this portion of the site, the presence of bone and soapstone in this area of the site are unique when compared to other areas excavated from 2002 to 2005. These findings, along with evidence for other spatially-discreet activity patterning continue to demonstrate that well-preserved nature of the site and the opportunity to interpret individual activities through further spatial analyses.

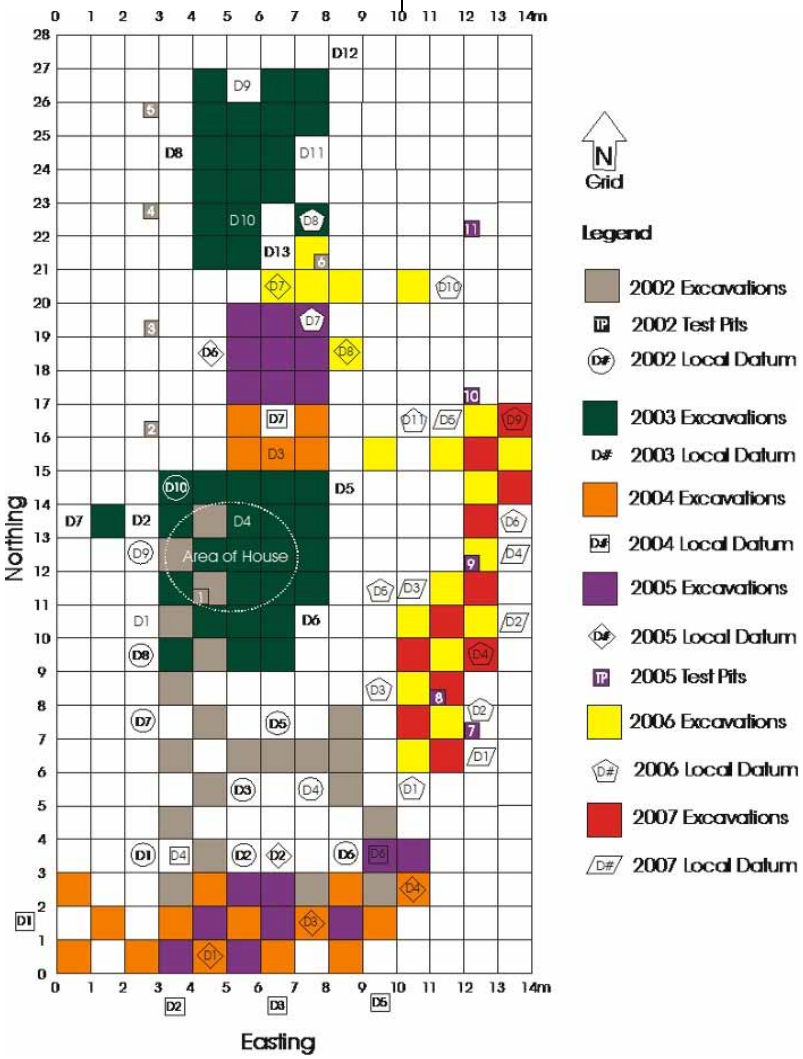

Figure 1: 2002-2007 Cow Cove Excavation Area. (Erwin)

Utilized Soapstone Vessel Fragment (Cow Cove 3 - EaBa-16). (Erwin)

Leister Fragment? (Cow Cove 3 - EaBa-16). (Erwin)

French Island Tickle Excavation Results

The initial excavation of French Island Tickle (EaBa-19) in 2006 defined the cultural affiliations (French & Dorset), the age of the historic component (later 17thC-18thC), and the site's research potential. The objectives of the 2007 investigations represented a continuation of the 2006 work, insofar as our initial excavation was limited to three 1m x 1m square units. More specifically, the focus of the 2007 investigation was to refine the extent and nature of the site; to determine site functions; and to determine the relationship of prehistoric use between French Island and Cow Cove.

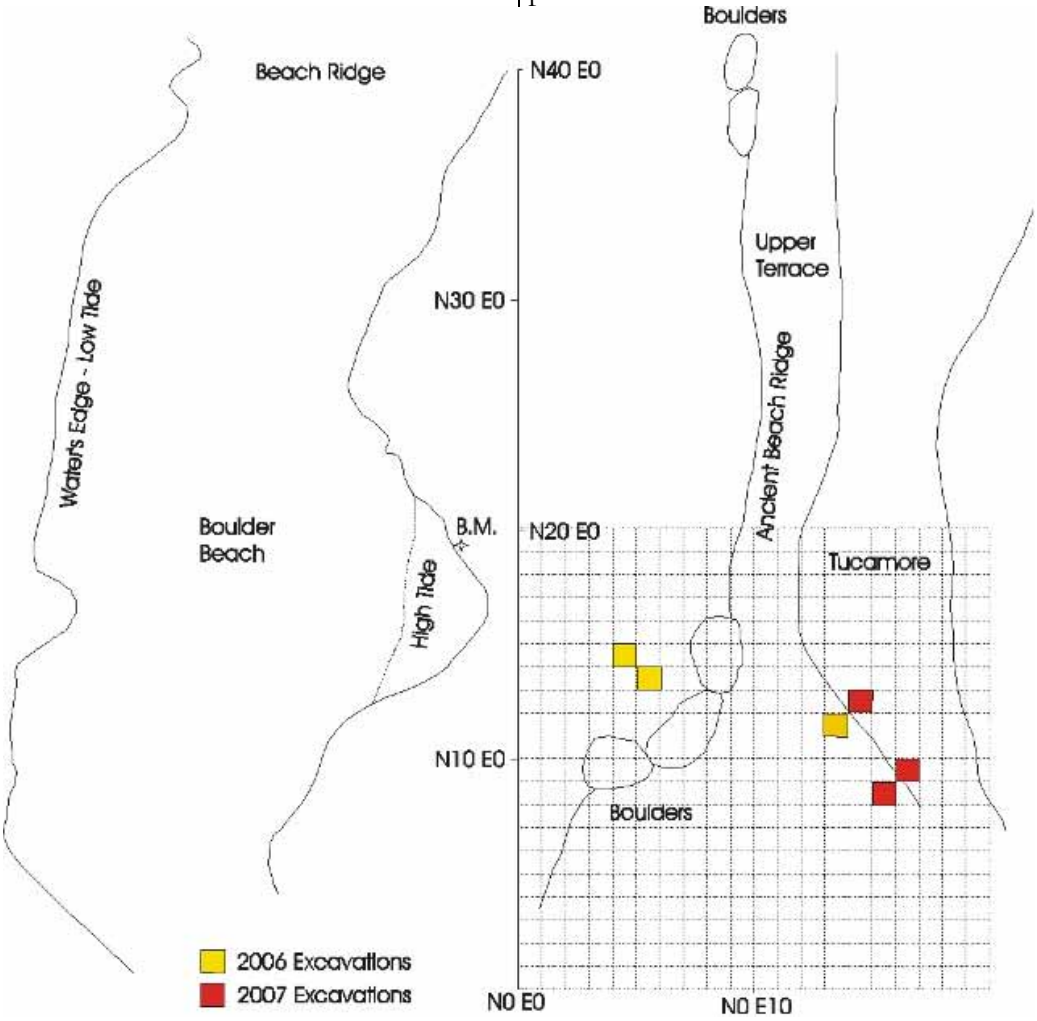

Figure 2: French island Tickle (EaBa-19) Site Plan. (Erwin)

This work focused on the upper of the two occupied terraces which contained the majority of Dorset materials, and the oldest and best preserved French evidence. Unfortunately, poor weather conditions precluded regular daily crossing of the tickle by kayak, which limited our investigations to an additional three 1m x 1m square units (see Figure 2).

Pipe Bowl and Unidentified Glass Object (French island Tickle - EaBa-19). (Erwin)

Despite the small area of excavation in 2007, we were able to further delineate the extent of the site, and discover architectural details in the example of flat paving stones which are tentatively interpreted as fish flakes. Further French and Dorset artifacts were recovered which do not alter our original interpretation of the site's occupation age and cultural affiliation. Further excavations on French Island are required to better understand the potential architecture and function of the historic portion of the site, and the relationship of the Dorset occupation to that of the occupations at Cow Cove.

TOWN OF FOGO ARCHAEOLOGICAL PROJECT

John Erwin
Archaeological Research Associates

A four day archaeological survey (September 25-28, 2007) of the town of Fogo was conducted on behalf of the Provincial Archaeology Office to explore two previously reported stone features and a quarry site located on the south shore of Seal Cove, as well as a pre-contact spot find on Brimstone Head. Foot surveys which we conducted as part of this investigation also resulted in the discovery of six additional pre-contact sites in the vicinity of these areas. An historic petroglyph site was also recorded west of the Town of Fogo in the vicinity of Long Pond. On the basis of this investigation, further work is recommended to explore a number of these finds, most notably, the local rhyolite sources as they relate to prehistoric stone working industry of Brimstone Head.

Figure 1: Town of Fogo Site Location Plan

Site Location Plan Key: *(1) DkAn-4 Dump Quarry Site, (2) DkAn-9 Brimstone Head, (3) DkAn-10 Seal Cove Fogo 2, (4) DkAn-11 Seal Cove Beach, (5) DkAn-12 Simm's Rockshelter, (6) DkAn-13 Simm's Garden, (7) DkAn-14 Brimstone Head South 1, (8) DkAn-15 Brimstone Head Trail South, (9) DkAn-16 Long Pond Rock, (10) DkAn-17 Brimstone Head Quarry.*

1. The Dump Quarry Site (DkAn-4)

The Dump Quarry Site was originally reported by Holly (1997:23) as part of his 1997 survey of Fogo Island. The site is comprised of battered rhyolite boulders which are located at the end of a narrow cobble beach bounded by bedrock on both sides. The boulders are situated in such a manner that they give the appearance of a rockshelter (Figure 2). Notwithstanding the recent debris which litters the inside of this feature, including some recent burning, there remains little evidence for its use. Much of the evidence for lithic quarrying activity has been lost to ocean tides and storm surges, and is presently limited as Holly suggested, to some battering and the presence of a few early stage reduction flakes.

Figure 2: Dump Quarry Site (DkAn-4). (Erwin)

Based upon a surface survey of this site, only a few water worn flakes of rhyolite were found on the beach. The flakes and a sample of rhyolite which we

collected from the bedrock are similar in colour and texture, suggesting that some quarrying activity did take place at this location. On the basis of our brief re-investigation of this site, it can be concluded that Holly's original assessment of this site was correct, and that the material from this location was not ideal for stone tool production (Holly 1997:23). In fact, from the process of removing a sample from the outcrop, it was noticed that while the rock is workable, it contains numerous internal angular fractures which would limit its utility as a workable stone.

2. Brimstone Head (DkAn-9)

A rhyolite biface was found June 26, 2007 by Robert Anstey on the "highest point of land" on Brimstone Head and subsequently reported by Patty Wells (2007) as a spot find. The presence of rhyolite outcrops in the area of Brimstone Head and the recovery of this specimen, fashioned from what appears to be local rhyolite, suggested that a potential quarry site and/or related site might be located in the area. We conducted a foot survey to investigate site potential atop Brimstone Head (see Figure 3) on September 25, 2007. Numerous areas of soil erosion facilitated sub-surface inspection of large areas of ground without test excavations. From our survey, three localities atop of Brimstone Head (all above 70masl) were found to contain lithic debris and a few bifacially-worked stone tools that are consistent with the Anstey biface.

Figure 3: Brimstone Head. (Erwin)

All of the lithic materials were collected from ground surfaces which were naturally eroded to depths of approximately 10 to 15 centimetres. In sum, a total of 38 lithic specimens were recovered from the three localities. By material type, the majority (n=30) are rhyolite, 5 are chert, and 3 are jasper. By specimen type, there are 35 waste flakes, two retouched flakes, one biface, and one bifacially worked preform. Both the biface and the biface perform are fashioned from the local rhyolite. Unfortunately, no cultural affiliation as yet can be assigned to Brimstone Head, since no culturally-diagnostic tools were recovered. On the basis of the location of the lithic debris, and the evidence for tool manufacture, the use of this area does not seem directly related to quarrying activities. Alternatively, Brimstone Head was more likely used as a lookout and as an area for more generalized flint knapping activities.

3. Seal Cove Fogo 2 (DkAn-10)

In 1887 a story was published in the *Evening Mercury* documenting the discovery of a Beothuk burial by Thomas Farrell (Marshall 1996:412). The burial was described as a feature about six or seven feet long constructed with large flat stones which contained a birch bark, a skull, some bones, seal skin and two blades (*Evening Mercury* 1887 in Holly 1997:6). Despite this report, the exact whereabouts of this feature were previously unknown. In 2007 the discovery of a stone feature generally matching in description and location was made by Mayor Andrew Shea of the Town of Fogo. A subsequent visit by Stephen Hull of the Provincial Archaeology Office confirmed the presence of this feature. However, no cultural affiliation could be made on the basis of surface observations and the limited testing undertaken by Hull. Subsequent to this initial investigation, Mayor Shea reported the existence of a second possible stone feature located near the first. While it was not determined that this site was the one which Farrell reported in 1887, the similarity between the two merited further investigation.

Figure 4: Seal Cove Fogo 2 (DkAn-10) Feature Locations. (Erwin)
Note: View in this photo is north.

The site is situated in a grassy valley surrounded by high boulder outcrops and is bisected by a narrow stream. The stone slab feature initially investigated by Hull is labelled Feature "A" and the location of the second boulder pile is marked as Feature "B".

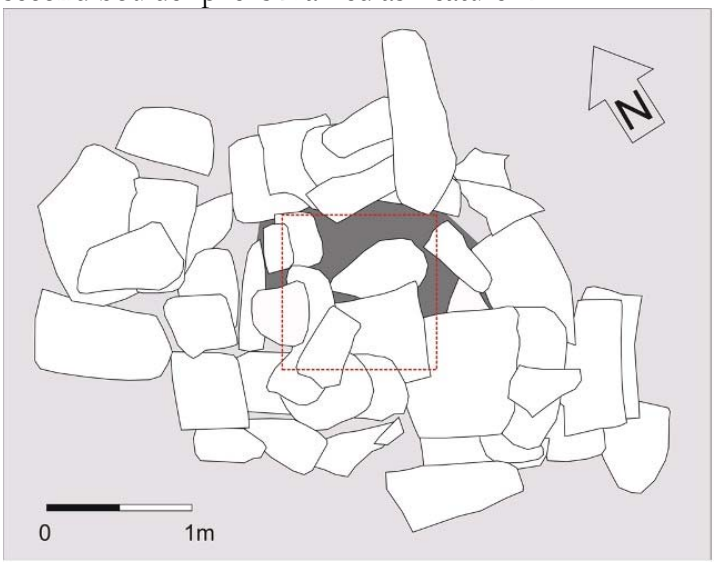

Figure 5: (DkAn-10) Feature "A". (Erwin)

i. Feature "A" Excavation Results

Excavation of Feature "A" was conducted September 26, 2007. With the exception of two round metal rings (Figure 6), which were found just beneath the ground surface, no other artefacts were recovered. Both specimens are heavily corroded and appear to be standardized in size and shape. Each ring has a small gap, suggesting that they could have been linked, although the actual function of these objects remains undetermined.

Figure 6: Metal Objects from DkAn-10. (Erwin)

The soils within the area of the excavation were undisturbed. They also contained the same large angular rocks which make up the nearby rock covered slope, which demonstrated that the construction and/or use of this feature had not included a subsurface component. This conclusion was further supported by the fact that the soil profile was a continuous layer. As such, it can be concluded that the use of this feature was wholly above ground. If this feature was the same as noted by Farrell in 1887, its contents have long since been removed. Though we recovered no direct evidence from the excavation of this feature to link it to Farrell's story, the results of our investigations do not disqualify the hypothesis that this was the burial feature which Farrell described. Unfortunately, without further historical documentation on the location of Farrell's find, there is little else which can be done to link the story with the archaeological record.

ii. Feature "B" Investigation

Feature "B" measures approximately 1.7 meters in length by 1.2 metres in width and approximately 30 centimetres in height. Prior to excavation, an animal skull could be seen beneath a rock along the western side of the feature (see Figure 7). From our investigation of this feature it was concluded that the rocks were a natural accumulation similar to other boulder piles along the eastern edge of the site and adjacent the bottom of the active slope. While no cultural materials were recovered from the excavation, a complete skeleton of a dog was uncovered.

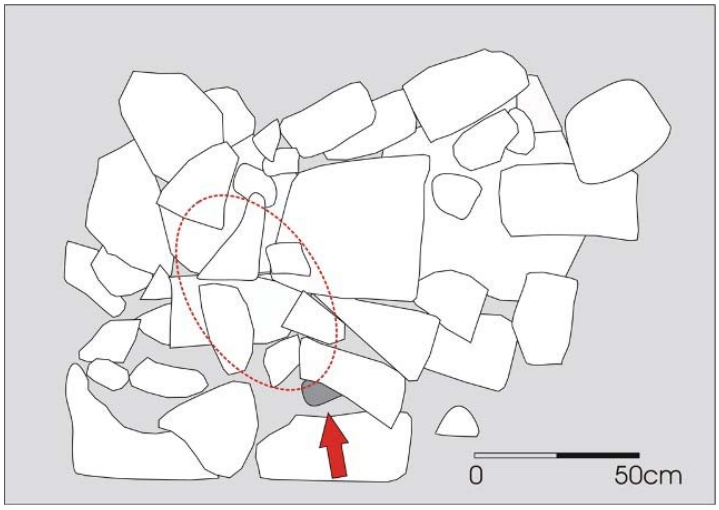

Figure 7: (DkAn-10) Feature "B"
Note: the arrow indicates location of dog skull and dotted ellipse indicates the area from which the remainder of the skeletal elements were recovered. (Erwin)

Notwithstanding the possibility that the deposition of the animal could have been intentional, its "burial" within these rocks could also have been a result of rock falls from along the side of the steep and loose boulder covered slope. In either case, it was concluded that the dog's remains were relatively recent based upon the observation that the bones were greasy and continued to provide nourishment for maggots and insects at the time we collected them. On the basis of these results, it is highly unlikely that the dog remains were related to Feature "A".

4. Seal Cove Beach (DkAn-11)

The survey of the beaches in Seal Cove between DkAn-4 and DkAn-10 resulted in the discovery of two additional stone features in a wide low-lying cove that is situated adjacent an active cobble beach. Due to time limitations, only a surface inspection was made of the features and the adjacent beach. Based upon this work, no artefacts were noted or collected, save a large sample of unworked rhyolite which was found on the beach at the mid-way point between the water's edge and the largest of the two features. Based on a cursory visual inspection of the rhyolite nodule which suggests that it is of local Brimstone Head material, it appears likely that it washed up on this beach from either the adjacent quarry site in Seal Cove (DkAn-4), or from across the harbour from Brimstone Head.

5. Brimstone South Beach Survey

A survey of the south beach along Brimstone Head resulted in the discovery of four new sites, namely: DkAn-12 Simm's Rockshelter, DkAn-13 Simm's Garden, DkAn-14 Brimstone Head South 1, and DkAn-15 Brimstone Head South Trail.

i. DkAn-12 Simm's Rockshelter

A largely undisturbed rockshelter containing evidence of early stage lithic reduction activities, including hammerstones and primary flakes and preforms fashioned from local rhyolite was found at the base of a rhyolite outcrop which also likely served as a source of raw material for the reduction activities which were carried out at this location (Figure 8).

Simm's Rockshelter is approximately 50 m^2 in area. On the basis of the hundreds of pieces of rhyolite debitage and associated flintknapping tools which were observed laying on the surface of the rockshelter floor, this site is interpreted as a pre-contact lithic quarry/workshop. A small surface collection was made, consisting of nine specimens, including primary flakes, cores, a bifacially-worked preform and a hammerstone (Figures 9 & 10).

Figure 8: DkAn-11 Simm's Rockshelter. (Erwin)

Figure 9: DkAn-11 Lithic Sample From Simm's Rockshelter.

Figure 10: DkAn-11 Hammerstone from Simm's Rockshelter. (Erwin)

Note: Scales in both artefact photos are 5 centimetres in length.

Investigation of this site was limited to a visual surface inspection and a collection of a small sample of materials. No subsurface testing was conducted as the extent of the site could be determined from the surface inspection. The cultural affiliation, however, could not be determined from the materials observed or collected. Apart from a recent fire pit, the site remains mostly undisturbed, probably owing to the fact that the types of artefacts would go largely unnoticed to anyone who is not familiar with stone tool manufacture. There is excellent potential for further investigation of this site, particularly with regard to understanding the use of pre-contact lithic sources in the area.

ii. DkAn-13 Simm's Garden

A small surface collection of 20th century historic and pre-contact artefacts was made from an historic garden and the adjacent beach at a location locally known as "Simm's Garden". The site is comprised of a garden that is surrounded by a wooden rail fence which contains a small shed that is situated in

the south west corner of the garden. Two circular stone piles were also observed at locations approximately 5 and 10 meters north of the garden. Although no artefacts were found in association with these features, a surface inspection of the garden and the surrounding cobble beach resulted in the collection of a small number of 20th century ceramics, a piece of coal and three rhyolite flakes. Historic artefacts can be found on the surface throughout the area and are in greatest concentrations along the margins of the garden. While there is no evidence for where this material originated, it is likely that a residential component once stood nearby. The presence of three large rhyolite flakes on the beach along the front of the garden likely originated from the nearby rockshelter site (DkAn-11). Except for the two rock piles, which have yet to be fully investigated, the Simm's Garden site is largely disturbed and appears to offer limited potential for further research.

iii. DkAn-14 Brimstone Head South 1

Brimstone Head South 1 is a small circular stone feature that was discovered during a survey of the Brimstone Head South Beach. The feature is comprised of several courses of stone slabs and boulders adjacent a bedrock outcrop overlooking Seal Cove. These rocks form a low-lying "D" shaped structure that could serve as a wind break or a hunting blind. Based upon a cursory visual inspection of the interior of the feature and the beach surrounding it, a few recent shotgun shells were noted, but not collected.

Figure 11: Brimstone Head South 1 (DkAn-14) Stone Feature. (Erwin)

While such recent evidence does suggest that the site had been used as a hunting blind, the extent of the lichen growth on the stone slabs of this feature suggests a much early construction. As with the other stone structures which have been investigated, few artefacts seem to be associated with these features. In this regard, it is likely that the lack of artefacts in many instances might be due to a combination of factors relating to their exposed locations and collection activities of local residents.

iv. DkAn-15 Brimstone Head South Trail

A spot find consisting of a single bifacially-worked preform was made during our survey of the south beach of Brimstone Head on September 26, 2007. The specimen measures approximately 12cm X 6cm X 4cm and is fashioned from the local rhyolite. The specimen was found eroding out of the trail. No other lithic debris was observed on the trail or in the immediate area of the find. A single shallow test pit was excavated to bedrock at the spot where the find was made. As with any spot find, an explanation for its

location is generally little more than speculation, as there is no immediate contextual information that might provide further explanation. In a broader context, however, the location of this specimen between a lithic workshop and the source of this material provides some contextual detail for its explanation.

6. DkAn-16 Long Pond Rock

During our investigation of Seal Cove and Brimstone Head, a story of a "rock" with names carved into it in the vicinity of Long Pond was brought to our attention by local resident Sterling Tarrant. As our informant and guide to the site, Mr. Sterling led us to a large boulder outcrop located at the eastern end of Long Pond. The site consists of a bedrock outcrop which has dozens of names, dates and initials carved into it (Figure 12). The names and the dates reflect activities dating back to the first half of the 19th century through the mid 20th century (Figure 13). Further investigation of this site might yield some interesting historical/genealogical research potential if the names and initials were to be linked with persons and/or families on Fogo Island.

Figure 12: Long Pond Rock (DkAn-16). (Erwin)

Figure 13: Long Pond Rock (DkAn-16) Carving Example. (Erwin)

Note: Carving reads Abram Osmond 1939

7. Brimstone North Beach Survey

A visual survey and test pitting was conducted of the north beach of Brimstone Head. This work resulted in the discovery of the Brimstone Head Quarry (DkAn-17), which can be described as a large debris field of rhyolite was found on the north side of Brimstone Head. As no artifacts were recovered from this initial investigation, no cultural affiliation could be assigned. Such evidence, however, is likely buried beneath the debris that has fallen hundreds of feet from the cliff face into this area.

Figure 14: Rhyolite Boulder Field at DkAn-17 Brimstone Head Quarry. (Erwin)

The area of the debris field extends over an area of approximately 5000m^2 and shows few if any signs of cultural disturbance. Upon examination of the surface features of this area, it was noted that the raw materials are of varying quality and some show signs of heavy fracture as a result of their deposit from the cliffs above. Notwithstanding the fact that no cultural materials were recovered from the surface of this site, the vast amount of lithic raw material at this location would certainly have been noticed and likely utilized by the areas pre-contact inhabitants. The presence of this raw material at a number of other sites, including Brimstone head and Simm's Rockshelter, attest to its use. Further investigation by way of a sampled excavation would

likely yield evidence toward its use and perhaps the cultural affiliation/s.

Acknowledgments

Many thanks to Mayor Andrew Shea and Sheryl Miller of Fogo for their hospitality and for their efforts as archaeological assistants. Special thanks to Sterling Tarrant for guiding us to Long Pond to record the rock carving site, and to Derrick LeGrow for his hard work as field assistant and to Elaine Anton our Conservator.

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EXCAVATIONS AT DiBd-1: A BEACHES COMPLEX SITE AT BIRCHY LAKE, INTERIOR NEWFOUNDLAND.

Donald H. Holly Jr.
Eastern Illinois University
John Erwin
Archaeological Research Associates

In May of 2007 excavations were conducted at a small Beaches Complex site (DiBd-1) at Birchy Lake—a narrow 20 kilometre long lake situated at the base of the Baie Verte Peninsula in north central Newfoundland. The site was first discovered in the summer of 2005 in the course of an archaeological survey of the lake. This survey, together with our recent excavation of DiBd-1, was conceived as part of a broader investigation aimed at exploring hunter-gatherer settlement and subsistence strategies in the interior of the island.

We discovered six new sites in 2005. Most were spot finds. We often found artifacts strewn across exposed beaches and sometimes underwater. As a consequence of hydroelectric operations, the lakeshore has suffered considerable erosion. All of the sites we located in 2005 are periodically inundated or else have been destroyed. The loss of these sites is unfortunate, as our survey yielded material suggesting the presence of Maritime Archaic Indian, Groswater Paleoeskimo, and (early) Recent Indian peoples on the lake in antiquity (Erwin and Holly 2006).

Our 2007 excavations centered on DiBd-1 (Birchy Lake-9), a site that in 2005 seemed to offer the promise of some in-situ deposits. And indeed, our excavation in 2007 revealed as much; although the topsoil has been largely stripped away, cultural material remained buried—albeit just beneath the surface of the soil. In a few places, tuft-like islands of rooty-vegetation jut out of the surface of the site. They are all that remain of the pre-flood surface.

We excavated ten 1x1 meter and two 50cm x 50cm units over the course of five days. Our pace was slowed by the discovery of a large deposit of calcined bone-mash and charcoal-stained soil. The feature was roughly oval in shape, three meters long, a meter wide, and oriented northeast-southwest. Bone mash was found throughout the feature and to a depth of about five centimetres, but the densest concentrations of bone mash appeared to occur along its perimeter. We also identified four vaguely-circular deposits of charcoal stained soil in the feature. The hearths were located close to the edge of the feature too.

The bone mash we encountered at DiBd-1 recalls similar deposits found at Beothuk sites in the interior and at Innu sites in Quebec and Labrador. Raymond LeBlanc described the faunal material he unearthed at

Wigwam Brook, a historic Beothuk site on the Exploit's River, as consisting of "…small particles of bone and bone powder" (1973:82). His description is certainly apt here. We estimate that we collected 32,409 pieces of calcined bone, and that on average each individual piece weighed only .28 grams. LeBlanc suggested that the bone mash deposits at Wigwam Brook were formed in the process of rendering grease. We concur, and believe that our feature reflects similar activities.

Grease rendering begins with the mashing of bones, which are then placed in boiling water to extract the grease. Given the general absence of pottery at Recent Indian sites (c.f. Teal 2001), it is likely that birch bark containers were used for this purpose. Of course, this would have necessitated the use of hot stones to heat the water. We found ample evidence of stones used in this way. Fire-cracked rock was found throughout the feature. In addition, we identified four deposits of charcoal stained soil that likely represent the remains of expedient hearths built for the purpose of heating stones.

After grease is rendered, it is collected by adding cold water or snow. The cold water causes the grease of land mammals in particular (see Outram 1999:116) to congeal, at which point it was collected (Binford 1978:158). The contents of the vessels were subsequently discarded—we imagine in the process forming the feature we discovered at DiBd-1.

We recovered most of the artifacts that we found within and along the perimeter of the feature. The artifacts included bifaces, scrapers, projectile points, cores, utilized flakes and lithic debitage. Most of the artifacts and debitage consisted of chert—presumably obtained on the island—but fifteen percent of the debitage and five formal tools were fashioned from Ramah chert. The most impressive of these is a side-notched projectile point, of which the proximal portion remains. Another side-notched projectile point was found at the site during the 2005 survey. This point is made of a fine-grained beige chert and is complete. The DiBd-1 artifact assemblage also includes scrapers, triangular bifaces, and large biface fragments. The material is typical of the Beaches complex.

The most interesting object that we unearthed this season was a small piece of bone. The bone bears an engraved set of parallel lines on both sides—eight on one side, nine on the other. We found the object in the bone mash feature, in the midst of thousands of pieces of mashed calcined bone. Yet, this object does not appear to have received the same treatment—it has been worked and it's in good condition. Its function, however, is unknown; it might have been a bone point (Arthur Spiess personal communication 2007), or a pendant, or maybe even some sort of divination device. Whatever it is, it is a special piece. It might represent the earliest example of engraved bone at a Recent Indian site on the island.

DiBd-1 stands to make an important contribution to our understanding of the Beaches complex and to Recent Indian adaptations in the interior at a time when Dorset PaleoEskimo peoples frequented the nearby shores. As such, our hope is to return to the site in 2008 and conduct additional excavations in a small surviving portion of the site immediately adjacent to the bone-mash feature. With any luck, we will be able to identify additional features and unearth artifacts that will help shed light on this important period in Newfoundland prehistory.

Acknowledgments

Our research at DiBd-1 was generously supported by a Summer Research Grant from Eastern Illinois University and made possible by the hard work of Derek LeGrow. Elaine Anton generously offered her house for use as an archaeological laboratory and residence for a visiting archaeologist. Ken Reynolds and the staff at the Provincial Archaeology Office provided logistical and moral support.

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Figure 1: photograph of the bone mash feature, looking south in the direction of the lake. (Holly & Erwin)

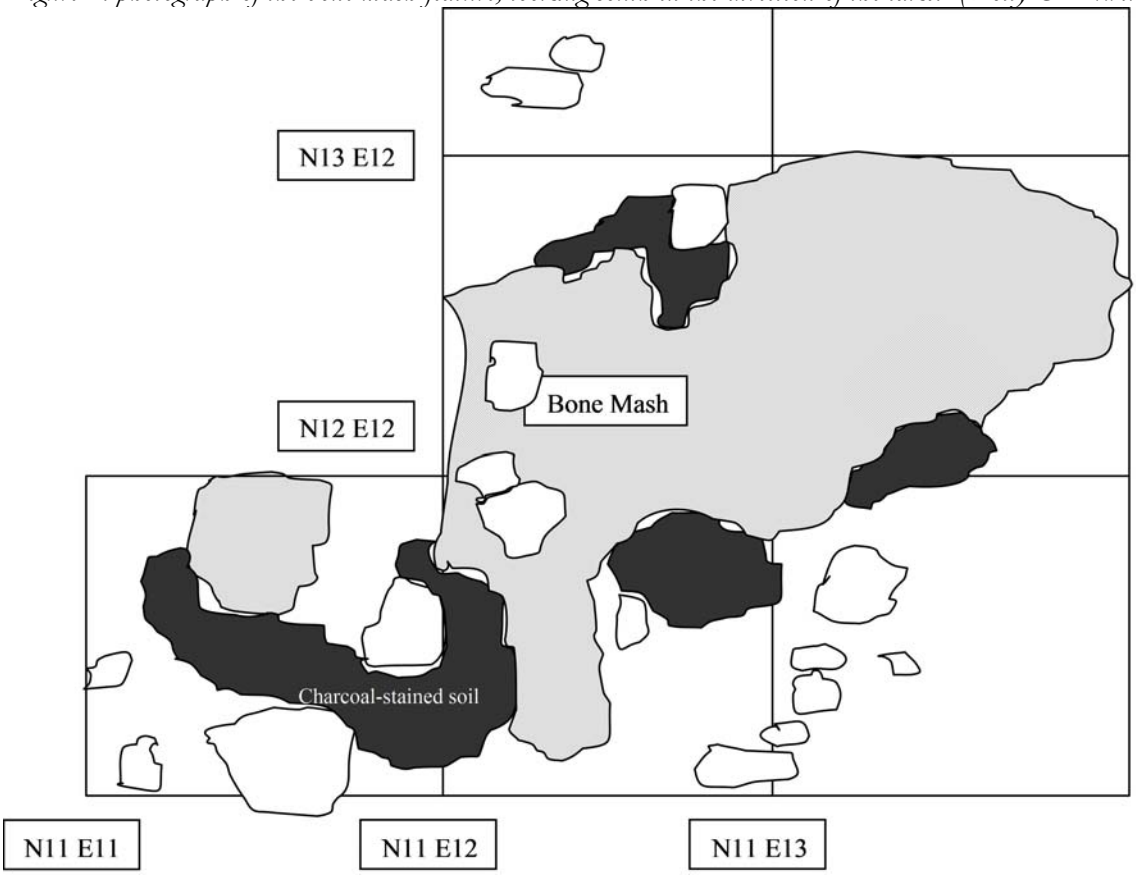

Figure 2: site drawing of bone-mash feature. (Holly & Erwin)

Figure 3: Side-notched, Ramah chert biface (Dibd-1:29). (Holly & Erwin)

Figure 4: incised bone object (DiBd-1:62). (Holly & Erwin)

POTTERY FORM AND FUNCTION IN ATLANTIC CANADA: GOULD SITE REVISITED

Kora Stapelfeldt
Memorial University

From the end of May until the end of July I traveled to eight museum and collection sites throughout Atlantic Canada in search of prehistoric pottery of all shapes and sizes. My goal is to identify a sequence of pottery forms and document their changes throughout prehistory. Form and function in pottery are inextricably related. Finding information on the morphology of vessels will lead researchers closer to how these vessels were used and as a result uncover more about the lifeways of past societies.

Pottery forms from the Woodland period (c.1000 B.C to AD 1500) vary throughout Atlantic Canada and the island of Newfoundland is no exception. Excavations at the Gould Site in Port au Choix, NL by M. Teal and M.A. P. Renouf have uncovered nearly 300 pottery sherds making it the "largest collection of ceramics north of the Gulf of St. Lawrence" (Teal 2001: 104). The site, privately owned by John Gould was excavated mostly during 1999 but some previous excavation also occurred in 1997 (Teal 2001). The Gould site is part of the Cow Head Complex dated to 2000 to 1500 B.P or approx 50 B.C to A.D 450 (Figure 1) (Renouf *et al* 2000).

Port au Choix appears to have been a preferred location in prehistory having been occupied for over 4000 years. The area is close to both terrestrial and marine resources making it ideal for habitation.

Although excavation at the site identified four activity areas, all pottery was uncovered from Activity Area One, which is composed of two excavation areas and one test trench. Furthermore, the bulk of the pottery sherds (284) came from a large depression known as Feature 280. This particular activity area has been occupied longer than the others and has the youngest material culture of the site as a whole. Radiocarbon dates from the charcoal within the layer lining the depression falls in the youngest part of the Cow Head Complex (1500 +/- 40 B.P) (Beta 134156) (Teal 2001).

One of the most important indicators of form in prehistoric pottery is the rim of a vessel. These sherds form the opening of the vessel and can be used to identify the shape, and diameter of the pot. The number of different styles of vessel rims in a site collection can therefore indicate the overall number of vessels uncovered. Previously, results indicated a minimum vessel count for the Gould site to be approximately seven but recent reinterpretation and discussion brings that number down to three (Teal, 2008, pers. comm.).

The rim sherds are grit-tempered, very delicate, and range in rim diameter from approximately 14 to 19 centimetres. All of the rims studied had no visible lip but they had a rounded edge and a small flare. One of the vessels uncovered has an interesting ridge extending from the apex of the castellation down into the neck of the vessel (Figure 2). There is also extensive residue visible on the interior of all sherds studied indicating their likely use as cooking pots (Deal et al 1991).

These vessels share some properties with others I have studied in the rest of Atlantic Canada, but further research will uncover how they truly relate to pottery forms relating to the same time period (Late Woodland Period) elsewhere in the region. Further investigation will also hopefully shed light on pottery forms of the Woodland Period as a whole and maybe even movement of vessel technology throughout Eastern Canada.

Pottery as an extension of nature can hold a place in societies as instrument, tool, trade object or more. The pottery found at Gould Site offers researchers a chance to look at vessels that trace a trail from the island to the mainland long before provincial borders were established. Where you find pottery you find people connecting.

Acknowledgements

I thank Memorial University and the numerous museum and collections personnel that have helped me in my research. Most notably for this section of my project I thank M. Teal and Dr. M.A.P Renouf for all of their feedback and information. I am also indebted to the Provincial Archaeology Office for the travel grant that helped me get to where I needed to go. Importantly, I want to thank, as always, my supervisor Dr. M. Deal for his continuing support of this project. If you have any further questions about this aspect of the project or the study as a whole please contact me at kstapelf@mun.ca.

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2008 Personal communication concerning Gould Site vessel counts.

Location of Port au Choix and the Gould Site. (Stapelfeldt)

Pottery recovered from the Gould Site. (Stapelfeldt)

GROSWATER AND DORSET PALEOESKIMO RESEARCH ON THE DOG PENINSULA, BIRD COVE

Latonia Hartery
University of Calgary

Bird Cove's scenic Dog Peninsula was the setting for the 2007 field season of the Bird Cove-Pond Cove Archaeology Project. Dorset and Groswater Paleoeskimo sites, named Fisherman Cove-1 (EgBf-13) and Fisherman Cove-2(EgBf-14), respectively, were excavated over the course of a month.

Fisherman Cove-1 is located just east of Dog Point, and lies roughly 7m asl on a flat terrace. It was excavated to further the project goal of understanding Dorset Paleoeskimo settlement and subsistence strategies in this part of the Bird Cove Archaeology District (Bird Cove to Pond Cove). The site was first shovel tested by David Reader in 1997, and in 2007 this initial investigation was followed up by a test excavation to determine site function. Based on the limited number of squares in this excavation it is difficult to fully understand the function of the site, but enough material was recovered to suggest Fisherman Cove-1 was a small and temporary campsite. Unlike most other Dorset sites in our research area there are no faunal remains. This likely results from the lower layers of the site not possessing large dolomite and limestone rocks through which bones percolate downward, and become protected by these calcium rich rocks. Instead, the lowest stratum of Fisherman Cove-1 contains beach and pebbles, packed tightly together, with a few large rocks arranged culturally. Although no organic remains were found, a variety of finely crafted tools were recovered, including a quartz crystal microblade, flaked and fashioned into a point, and a quartz crystal scraper, types commonly found in Dorset sites in Bird Cove. Debitage includes distant and near source material, ranging from Ramah chert to Newfoundland cherts from Port au Port, Cow Head and the Bird Cove region. Several lithic artifacts from the assemblage were isolated for testing as part of the *Arctic Phytolith Project*, which is based out of Bird Cove and also began in 2007. This project determines prehistoric plant use on a microscopic level through tool edge residue analysis. Plant collection and samples taken for the project are set to include Nunavut and Greenland as well as Newfoundland and Labrador.

The second site, Fisherman Cove-2, is a Groswater site whose previous testing had revealed interesting results, including a caribou hoof amulet recovered from the middle of a hearth feature. The site is likely one of the smallest Groswater sites recorded in Newfoundland. This season we finished excavations at the site, uncovering the hearth in its entirety, and finding

additional artifacts, such as end and side blades. Fisherman Cove-2 is of great interest largely due to the conjunction of a single hearth feature, the hoof amulet, pockets of red ochre with tools contained inside, as well as finely crafted tools, both used and unused. Many of the end blades recovered, whether complete or broken, have a high degree of serration, similar to those in Philips Garden West. Side blades also exhibit the same characteristic. Knives are also abundant whereas microblades were practically non-existent. Taken as a whole, the evidence indicates that something of spiritual significance may have taken place at this location. To date, most of the investigations in Bird Cove have related to subsistence, settlement and economic reconstruction but this site, once fully researched, may provide insight on cosmology, and the intermingling of ritual and economy, within the Groswater Paleoeskimo culture.

The season was organized by Amina Anthropological Resources Association as well as the Big Droke Foundation. Our team was comprised of local and non-local workers in the field as well as the laboratory. This summer also served as a springboard for planning the 2008 Conference Bird Cove and Beyond: Celebrating Regional Archaeology on a Global Scale. http://www.aminainc.org/conference.html

Looking southwest over Fisherman Cove 1 and 2 into St. Margaret's Bay. (Hartery)

THE EAGLE PROJECT: AVIATION HISTORY AND ARCHAEOLOGY IN GANDER, NEWFOUNDLAND

Michael Deal
Memorial University

During the summer of 2007 a crew from Memorial University, directed by Michael Deal, surveyed a downed World War II aircraft crash site near Gander (DgAo-01). This fieldwork was conducted in conjunction with the filming of a documentary on the historical significance of the flight by Eastcoast Productions (David Hebbard and Darrell Hillier). The work was also conducted with the cooperation of members of the North Atlantic Aviation Museum, Gander, and the Avalon Historic Aircraft Recovery Association, St. John's.

The aircraft is a Consolidated B-24M Liberator (#44-42169), which was en route from Grenier airfield, Manchester, New Hampshire, via Gander on overseas deployment with the Eighth Air Force in England (482nd Group, Alconbury). It was one of a select group of World War II aircraft that were fitted with an experimental high resolution radar device for high altitude, precision blind-bombing (Brown 1999; Masters 1945:43; see Figure 1). The radar device (designated AN/APQ-7) was nicknamed the "Eagle," and the aircraft became known as the Eagle bombers. Only six Eagle bombers arrived at Alconbury and only eight operations were flown before the end of the war. The pilot of Liberator #44-42169, Col. William Dolan, was formerly the commander of the 1st Search Attack Group, Langley Field, Virginia, where combat crews were trained in radar use (Mauer 1994).

Liberator #44-42169 crashed while attempting a landing in inclement weather on February 14, 1945, and all 10 crew members perished (Cardoulis 1990:148; USAWP 1945). The wreck was found some time later by a trapper and a military team visited the site to collect the bodies of the crew members and destroy any classified materials. Recovery efforts were hampered by weather conditions. The accident report suggests that the aircraft struck a rock outcrop, so that debris was spread over a broad area (i.e., the debris field; Hollis 1960). The crash site is located in a heavily wooded area (primarily spruce, with a scattering of birch) and remained relatively undisturbed until recently. A new logging road passes near the site and it is now in danger of disturbance by collectors and salvors.

The goals of the archaeological fieldwork were (1) the recovery and conservation of surviving remnants of the B-24 aircraft (in particular, the Eagle radar device and associated equipment and any personal effects of the crew) and (2) to investigate the nature of the original crash and the differential preservation of materials at the site. The original plan called for two weeks of mapping and limited subsurface testing at the site, followed by two weeks of cleaning, cataloguing and conservation of recovered materials. However, on the day before the fieldwork was scheduled to end we discovered an area of the site that was previously unknown. This resulted in an additional trip to the site for three days in October to map and test this new location.

Figure 1: Eagle bomber with radar device housed in an airfoil-shaped cover, suspended beneath the nose of the aircraft. (Deal)

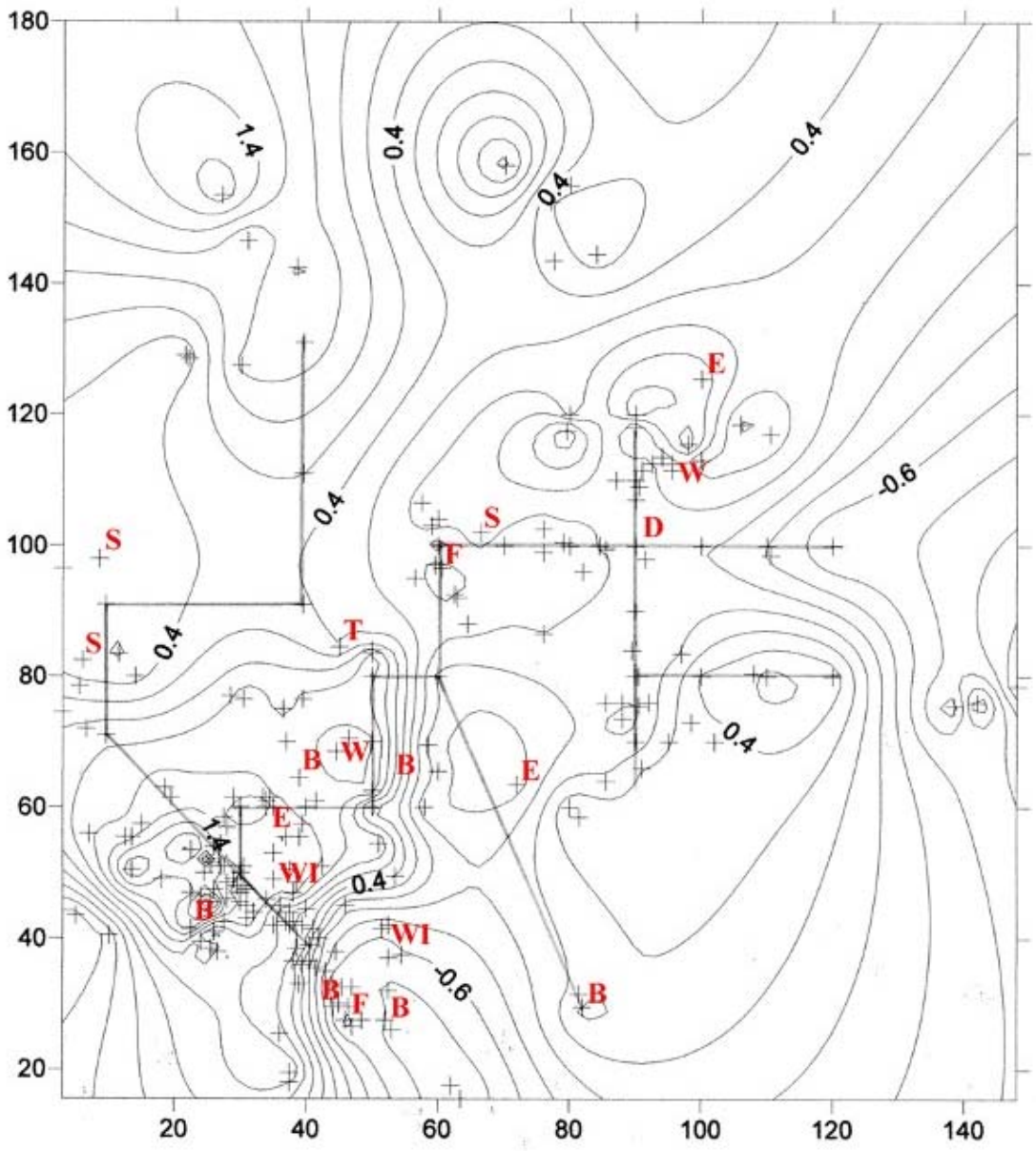

Figure 2: Contour map of Eagle bomber crash site, indicating location of site grid and selected features and artifacts. D=site datum; E=engine; W=wheel assembly; S=supercharger; F=tail fin; T=turret; B=propeller blade(s); WI=wing. (Deal)

The main site datum was established at the largest cluster of debris near the logging road, and east-west and north-south grid lines were laid out. As we moved across the site the grid lines were extended to follow the debris field. Fieldwork activities were hampered by dense forest growth and fallen trees, as well as the constant presence of black flies and mosquitoes. About a third of the site was wetland. Except for the largest fragments, most flat pieces were partially covered by a thick layer of sphagnum moss, which had to be removed so that each fragment could be turned over for examination. A chain saw was used to clear a path though the fallen trees along the grid line so that elevation measurements could be taken. A total of 221 elevation readings were taken in July from 23 instrument positions. These were used to create a contour map of the debris field (Figure 2). An additional 63 elevation readings were taken in October, but these have not yet been added to the map. A metal detector was used to locate subsurface materials away from the main areas of wreckage and to determine the physical boundaries of the debris field (also see Clouette 2005).

We did not attempt to collect all of the fragments of the wreck. Each fragment was recorded and mapped as it was encountered. Portable items that could be identified were recorded as artifacts and removed from the site. Larger pieces (e.g., wings, wheel assemblies, and engines) and unrecognizable fragments were recorded as features and left in situ (see Figure 3). In July we recorded 132 artifacts and 149 features. Nine square meters were excavated near the impact point of the original crash (at the lower left hand corner of the contour map). The artifacts were removed to the conservation lab at Queen's College, where they were

cleaned, catalogued and treated under the supervision of Cathy Mathias. They included several electrical and mechanical instruments, three machine guns, oxygen cylinders, a radar antenna, a propeller blade (and a fragment), a throat microphone, and a compass mount. The cockpit compass had been collected on an earlier visit. Several of the instruments still had identification tags, which will help to locate their original placement on aircraft. Block lifts were taken of two parachutes, a life jacket, and what is believed to be an officer's jacket. A number of other personal items were found, including a bottle opener, frying pan, and hunting knife. The aircraft was not carrying ammunition, but the officers had personal hand guns. We recovered several bullets and casings, and one bullet clip from a 45 calibre pistol.

Figure 3: Machine gun and mangled wreckage of a turret at Gander crash site. (Deal)

When we returned in October, we laid in an additional seven excavation units around the find spot of the block-lifted jacket. It appears that personal luggage of the crew was deposited in this area and we made several additional block-lifts of fabrics, and recovered numerous artifacts. Many of the artifacts were heat-damaged indicating that the area had been burned over. The block-lifts will be excavated in the lab, and are believed to be clothing and carrying bags. Dozens of brass buttons with American Eagle symbols were recovered, along with two silver wings (Figure 4) and a Southeast Air Corps Training Center badge. The block lifts were x-rayed, and indicate the presence of other metal artifacts (Figure 5). Another important discovery in October was the experimental radar vane. The outside casing had been broken in half and the aluminium core was found about 20 meters away.

Figure 4: Navigator's silver wing in situ (scale in cm.). Gray areas indicate heat-damage. (Deal)

Although the staggering number of 18,431 Consolidated B-24 Liberators (all models) were produced during the war, nearly all of these aircraft were either lost in action or sold to scrap dealers after the war (Jackson 2004:88). At least 20 Liberators crashed in Newfoundland and Labrador, primarily during deployment to Europe (Deal 2006:145). Today, only about a dozen complete examples exist, and almost all of these are in American museums (e.g., Blaugher 2005). Many models are no longer represented, or exist only as derelicts on museum lots and unrecovered wrecks at crash sites. Many of the wrecks, like Liberator #44-42169, represent aircraft that made major contributions to the war effort in terms of their service accomplishments or involvement in experimental trials. Once the materials recovered from Liberator #44-42169 have been conserved and analyzed, they will be made available for museum display, and some pieces are suitable for future restoration projects.

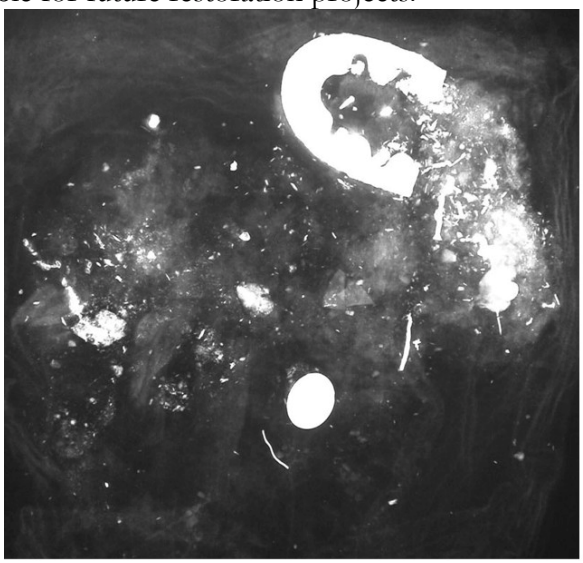

Figure 5: X-ray 11 (jacket block-lift) indicating fragments of a shoe (upper right) and a large brass button (lower center). (Deal)

Acknowledgments

This fieldwork was funded by a research grant from the Institute of Social and Economic Research (ISER). Additional funding for basic field supplies was provided by the Provincial Archaeology Office. I would like to express my thanks to the members of my full time crew, Lisa Daly and Robert Anstey, and my part-time crew, Cathy Mathias, Ellen Foulkes, and Sunny Jerkic. I would also like to thank the October volunteers, Doug Nixon, Missy Cousins, Maryanne Baird, Jane Deal and Rachel Deal. Peter Deal produced the computer contour map. Dave Hebbard and Darrell Hillier also helped out when not involved in filming, and Robert Maher helped with the identification of aircraft parts and equipment. Nelson Sherron was our liaison with the North Atlantic Aviation Museum and also arranged for free accommodations at 9 Wing, Gander.

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ARCHAEOLOGICAL SURVEY, BACK HARBOUR TWILLINGATE ISLAND, 2007.

P. J. Wells and M. A. P. Renouf
Memorial University

The small community of Back Harbour, just north of Twillingate Newfoundland is well known for its rich archaeological resources (Figure 1). Excavations directed by Don MacLeod of the former National Museum of Man revealed a long and intense pre-contact occupation beginning with the Maritime Archaic and including the Groswater and Dorset Palaeoeskimo. Together with finds of some Amerindian material suggestive of the Recent Indian, these discoveries demonstrate the sustained importance of this area for pre-contact groups. Subsequent European occupation with the construction of buildings, wharves, roads and gardens has had a destructive impact on the integrity of some of the sites in Back Harbour. This area is becoming increasingly popular for tourists and demands for increased housing and the recent construction of a recreational vehicle park highlights a need to protect the historic resources of the community. Consequently, a four week archaeological survey of Back Harbour was initiated in June, 2007.

Three goals directed this research. 1. To test a number of the archaeological sites recorded for the area to determine their size, the degree to which they have become disturbed by subsequent European occupation, and to confirm the cultural affiliation of the groups occupying them. 2. To test other areas of high archaeological potential for additional pre-contact occupations. 3. To determine the feasibility of initiating future archaeological research projects in this area at a number of scales. Twelve previously identified sites located in Back Harbour were re-investigated (DjAq-2-9, DjAq-18, DjAq-21, DjAq-25-26). In addition, two pre-contact sites were found within the community (DjAq-29, the Cricket Field and DjAq-30, the Ball Field), and one area north of the settlement in Davy Button's Cove was tested but no archaeological material was recovered (Figure 2).

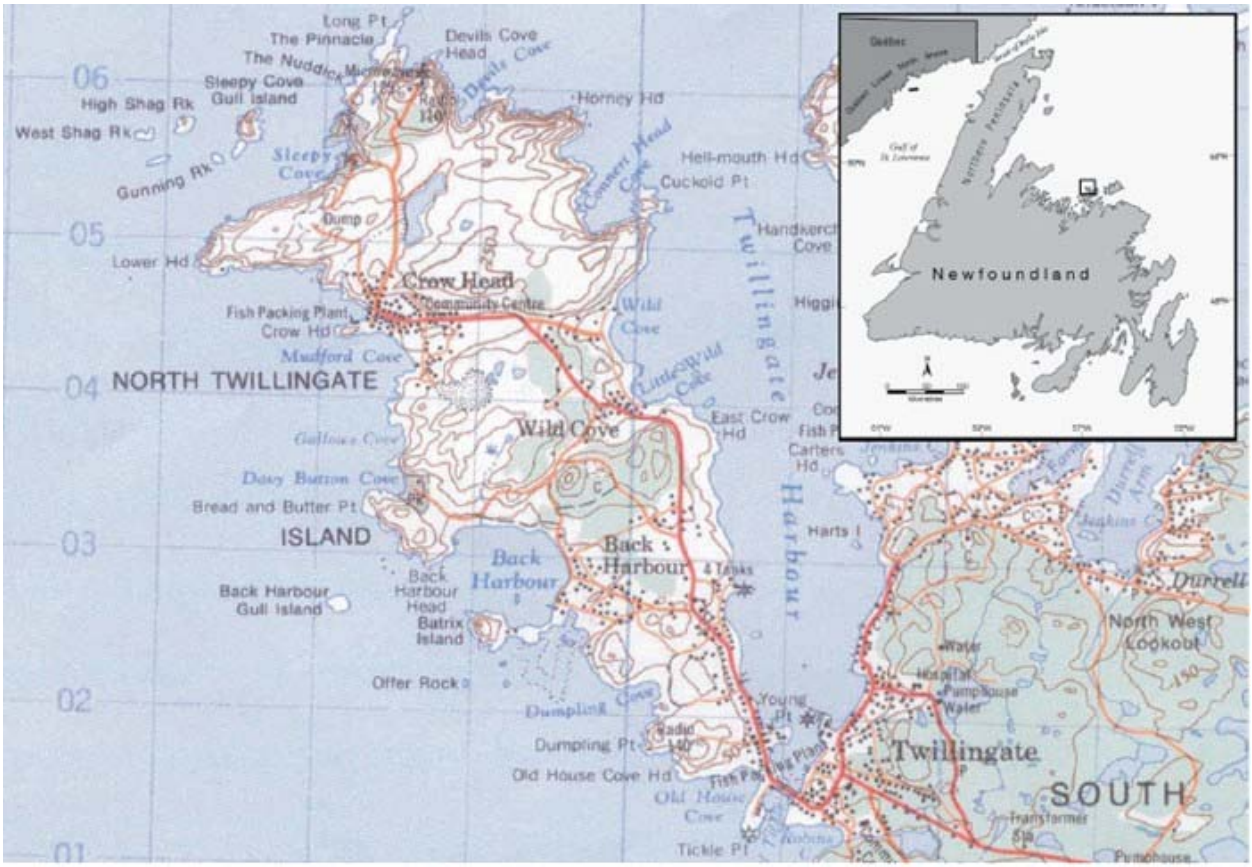

Figure 1: Back Harbour, North Twillingate Island, Newfoundland. (Wells & Renouf)

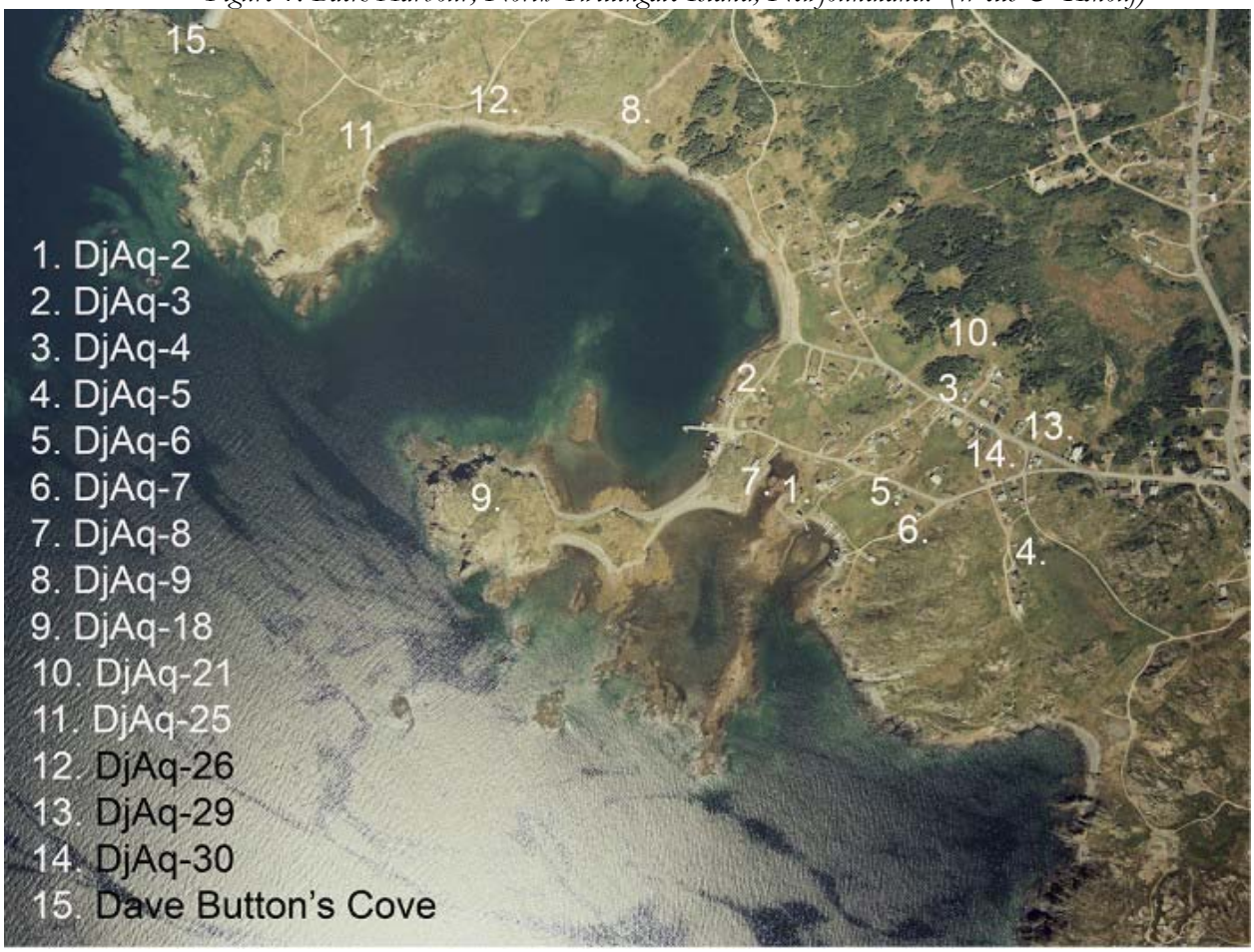

Figure 2: Location of sites tested in the 2007 survey of Back Harbour. (Wells & Renouf)

Throughout the summers of 1966-69 inclusive, Don MacLeod (1966, 1967, and 1968) conducted extensive excavations in Back Harbour. MacLeod's research concentrated on a Maritime Archaic Indian burial (DjAq-1) (Figure 3), but included the excavation of eight additional sites throughout the community. The results of his research demonstrated the extent of cultures occupying the area, and indicated that Maritime Archaic Indian sites were situated at a range of elevations.

MacLeod recovered a variety of Maritime Archaic Indian tool types such as woodworking implements and plummets, indicating a diversity of activities on these sites. Likewise artefacts that MacLeod (1968) surface-collected or excavated from Palaeoeskimo sites are numerous and indicate a relatively intense occupation. Unfortunately detailed records of this work were not produced, thus there is little documentation of the geographical extent of sites and the details of their excavation (Temple 2007).

Such rich collections concentrated in this small harbour, coupled with limited documentation made the present survey an important step in discovering the potential for future research here.

Figure 3: DjAq-1, the Curtis Site, a Maritime Archaic Indian cemetery. (Wells & Renouf)

The survey consisted of a systematic on-foot inspection of Back Harbour. Initially, sites previously located in the community around present-day houses were selected for further examination. In addition, we targeted a few locations within the area that suggested a high potential for the presence of pre-contact material. Where we revisited sites, we began at the location of previous finds and radiating out from the center at approximately 5 m intervals. We dug test pits about 50 x 50cm, taking each down to sterile bedrock or gravel. Test pits were expanded in some cases when the units became too deep to excavate effectively, or when suspected features were found. In this case, the units were increased to 1x 1m. The precise location of test pits and features was recorded. These points were tied into existing built features on the community map so that their spatial relationship could be clearly illustrated.

The results of this survey suggest that there is less potential for future large-scale excavations in Back Harbour than was anticipated; however it did clarify a number of outstanding issues concerning the pre-contact occupation of the area, site locations, size and state of preservation (Wells and Renouf 2008). Including the discoveries made this summer, nineteen pre-contact sites are now registered in Back Harbour. Twelve sites have confirmed Maritime Archaic Indian remains, and seven Palaeoeskimo. Of the latter, two are Groswater and four are Dorset, two being impossible to determine specifically. A number of sites were multi-component occupations. Temple (2007:44) suggests that DjAq-6 was a Recent Indian site based on two straight-based lanceolate bifaces; however our excavations revealed no further evidence of Recent Indian material. All sites had some degree of disturbance either from subsequent European occupation or through natural erosion.

The Maritime Archaic Indian occupation of Back Harbour is extensive, ranging in elevation from 0-21 m asl. Remains are dispersed throughout the community in varying degrees of intensity, demonstrating that this area was a landscape over which the Maritime Archaic Indian conducted a wide range of activities. Their near shore sites, including DjAq-3, 19, 20 and 25 are likely associated with fishing and sea mammal hunting, while they buried their dead some distance inland below the hills at approximately 15 m asl (DjAq-1 and DjAq-7). Further inland and at 20 m asl, a relatively large number of woodworking tools have been found (DjAq-5 and DjAq-21) suggesting that the harvesting and processing of wood products went on at these locations (Figure 4). Both DjAq-5 and DjAq-21 are on lower slopes partially surrounded by hills with open views, and while it is not possible to confirm the large number of woodworking tools removed from DjAq-21, our brief survey of the few undisturbed areas yielded a number of these types. Unfortunately it remains uncertain where the Maritime Archaic dwelling features were situated. Based on the presence of such a widely distributed range of sites and activities, we agree with the statement Temple (2007:67) quotes MacLeod as saying, that Back Harbour is one big site.

Figure 4: Slate woodworking tools, DjAq-21. (Wells & Renouf)

While both Groswater and Dorset Palaeoeskimo groups are represented in Back Harbour these groups limited their settlement to coastal locations, generally under 5 m asl as is consistent with their intense marine focus. Groswater material was found at DjAq-2 and 8, just a few meters above sea level. The Dorset occupied the same two sites, very intensely in the case of DjAq-2, as well as DjAq-3 and 25. The variety of tool types found on these sites represents a range of hunting and domestic activities (Figure 5).

Figure 5: Dorset artefacts found at DjAq-2. (Wells & Renouf)

The 2007 survey of Back Harbour determined that all of the recorded sites have been disturbed, some of them heavily, by subsequent European occupation. Only the Anstey Site (DjAq-2) and Peyton's Woods (DjAq-21) have areas that remain undisturbed. Of the two additional sites identified in this survey, one, the Cricket Field Site (DjAq-29) likely represents only the later transport of Maritime Archaic Indian material to the location, and there does not appear to be much more than a scattering of material at the Ball Field Site (DjAq-30). Consequently, while Back Harbour was the focus of substantial pre-contact occupation in the past, in particular of Maritime Archaic Indian groups, because of previous archaeological excavations and historic and modern construction activities, there is little potential for further survey or excavation in the area.

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AN ARCHAEOLOGY OF THE PETIT NORD - SUMMER 2007

Peter E. Pope, with Mélissa Burns, Jennifer Jones and Geneviève Godbout
Memorial University

Summer 2007 marked the third season for our *Archaeology of the Petit Nord* project on the maritime cultural landscape of the French, seasonal, shore-based, salt-cod fishery in northern Newfoundland, 1510-1904. It was also the second year of full-scale excavations at our key site of *Dos de Cheval*, EfAx-09, in Crouse. This was the French fishing room once known as *Champs Paya*: beautiful open terraces, a half hour walk from the French Shore Interpretation Centre in Conche. Memorial University MA students Harley Brown, Mélissa Burns and Geneviève Godbout worked on various features of the site. Though reconstruction of the Conche road proved deadly for the tires on our rented mini van and despite the total failure of several total stations, we had a very productive season. We even managed to get some further survey work done, identifying three new sites and revisiting others. Meanwhile, a fourth Memorial MA candidate, Jennifer Jones, excavated part of the Kearney homestead, where a family of 19th-century Irish *gardiens* took care of the fishing station at Genille (EgAw-07) in Croque Harbour, for French fishing masters.

Dos de Cheval, EfAx-09 Waterfront Area C

Harley Brown's aim was to learn more about waterfront activities at Area C, the part of EfAx-09 that in 2004 and 2006 produced the best evidence of French seasonal activities. We were particularly curious about the origins of a distinct anthropogenic terrace, below the raised fossil beach but above the present lower beach terrace. We decided that the best way to learn more was to excavate a trench crossing this terrace from east to west, downhill towards the water. This was a big project, especially given the richness of some of the deposits known from our exploratory excavations in 2006. So Harley worked with the biggest of our crews: incoming Memorial MA student Amy St John and two local assistants: Rita Barrett, who worked on our 2004 survey, and Memorial Environmental Studies student, Scott Caroll.

Harley began excavations in the flattest part of the Area C terrace, well uphill from the active beach. Over the course of the season, his crew extended the trench uphill a bit and downhill a long way, so that they reached the present vegetation edge near the beach. In the end the main trench stretched 13m from W29S103 downhill to W42S103, by the active beach. In places, Harley's crew widened the trench up to 4m, to expose features encountered. The higher, younger events are full of familiar 19th-century material, including pipe stems, bottles both English and French, REW, thousands of wrought-iron nails, lead cod dabbers and buttons, including a decorated "Equipe de Ligne" button of the 1840s, like that recovered in 2006. Underlying levels produced their own share of nails, medium and large, brown faience TGEW, and Normandy CSW. Early 19th-century events produced painted and blue shell-edge REW pearlware and some interesting REW creamware. Harley identified a sherd with the fragmentary inscription "...d Expects..." which he interpreted as "England expects every man to do his duty" -- Admiral Nelson's slogan at the Battle of Trafalgar in 1805. Recovery of more of this creamware jug proved Harley right and we have here striking evidence of the presence of migratory British subjects during the Napoleonic war period, when the French were absent from the site, ca 1790-1815. These fishermen were, quite possibly seasonal visitors from elsewhere in Newfoundland, perhaps the northeast coast.

Deeper in the trench, about mid-way down the terrace towards the beach, Harley's team uncovered five rows of subrectangular tabular rocks, each aligned north/south and each just over 2m long, alternating with what seems to have been logs of the same length, now decayed. These elements of Feature 1021 were arranged on the hillside at a consistent 1 in 5 slope, over about 5m. Geneviève Duguay, our visiting material culture expert from Parks Canada, recognized this as a boat-ramp (her father was a fisherman). This interpretation is supported by the exposure of hundreds of wrought-iron nail fragments and the recovery of wrought-iron gudgeon and pintle hardware (the hoops and pins used to mount rudders.) Recovery of 18th-century pipe bowls and faience TGEW in association with this feature suggests it reflects seasonal French use of the site before the wars of the 1790s and early 1800s. We also recovered a lovely little metal crucifix in this area. Late in the season we removed the Feature 1021 ramp to expose underlying strata. We were able to conserve the tabular rocks to reinstall with new logs on the surface after backfilling, as a reconstruction of this historic feature, for interpretation of the site by the French Shore Historical Society.

Harley and his crew then excavated a burn event underneath the Feature 1021 ramp, overlying a deposit of coarse stone and rock fill used to prepare a level surface underneath the later ramp. As we finished excavating this area, it became clear that we had uncovered the remains of a small burned structure, Feature 1201, which had preceded the ramp in this spot. Harley thinks this was a cabin used by officers or at least a higher-status crew, because rich midden deposits

recovered just downhill from this structure could be reasonably associated with it, as well as fragments of window glass and scraps of canvas that might be remnants of a roof covering. From these deposits, Harley's crew recovered Normandy CSW, brown faience TGEW, CEW (possibly Breton Pabu-Guingamp) including several elegant little coquemars (jugs), clay pipe stems with fleur-de-lys marks (Dutch or possibly French), a glass wine glass and a tumbler, the pull from a small drawer and a gilded button, besides canvas, rope fragments, and many faunal remains. Preliminary analysis of the assemblage suggests that this feature is also 18th-century, though obviously earlier. Since it lies close to what we interpret as the underlying original natural cobble beach, we must come to a preliminary conclusion that much of the soil in our anthropogenic terrace, at least west and downhill from about W34, post-dates 1700. This poses a question for further research: where were the 16th and 17th century occupations at Area C?

Crosses at EfAx-09, EfAx-11, EgAw-04 and EiAv-03

Mélissa and her dynamic one-woman field crew, Laval MA student Rébecca Janson, started their season at Dos de Cheval/Champs Paya (EfAx-09) by opening up four squares close to Feature 991, an impressive standing oak cross on a rock plinth on the higher terrace in Area D, which we had recorded with drawings in 2007. This monument stand part way up the hill northeast of the site and overlooks it. Mélissa's excavations near Feature 991 uncovered a 10 cm thick cement base, below the rocks of the plinth. Local oral history suggests that the French Navy repaired the existing cross in 1936. The cement footing uncovered this summer suggests that the cross was, in fact, totally rebuilt at that time. Older residents of Crouse and Conche told Mélissa that a previous monumental wooden cross stood roughly where Feature 991 stands today and that an earlier cross was surrounded by smaller wooden grave markers. Our excavations recovered only a few pieces of refined earthenware, so in the end we have no evidence that Area D was used for a cross much before the 20th century.

Mélissa had noticed that Georges Cloué's 1858 chart of Cap Rouge Harbour shows a cross at Dos de Cheval/Champs Paya -- but not where we see the monumental Feature 991 cross today. Cloué shows a cross on a natural promontory between Area B, to the east, and Areas A and C, to the west. This small platform, at the edge of the second beach terrace, has such a commanding view of the site that in 2006 we chose it for our datum. So now Mélissa wanted to open up the handy platform around the datum. She had to avoid excavating the datum itself but she and Rébecca were able to open 14 surrounding units. They uncovered Feature 1131, about 50 large tabular rocks that appear to be the collapsed plinth of an earlier cross. The cross itself was probably made of wood and Mélissa and Rébecca recovered wooden knots and a lot of nails with wood traces. Even the oldest of Mélissa's local informants had no memory of a cross in this prominent location, so it is probably safe to say that this cross was replaced by the cross or crosses on the higher terrace, sometime before the early 20th century. The identification of an earlier cross location, much nearer the water than the present one, raises interesting questions about the ceremonial landscape of the fishery, in earlier times.

Northeast Crouse (EfAx-11)

Later in the season, Mélissa and Rébecca and project director Peter Pope revisited the multi-component site at Northeast Crouse (EfAx-11), reported in 2004 and 2006. Two monumental oak crosses still dominate the landscape here: Feature 9 in Area O and Feature 12 in Area Q. Measured drawings permitted us to compare their dimensions and construction with the standing cross at EfAx-09 and the close similarity of all three crosses leaves little doubt that they were all built or rebuilt in 1936, by the French Navy. Because there are a few smaller grave markers close to the Feature 9 cross, Mélissa decided to investigate Feature 12, high on the slope above the western end of EfAx-11. Once she and Rébecca had cleaned up the vegetation around Feature 12, they could see that it stands in a rectangular platform, about 4 x 6m. Excavation of a pair of 1m units along the east edge of this platform indicated that it was constructed of layers of pebbles, cobbles and soil. Mélissa interprets the platform as a way of raising the area around Feature 12, because the natural sod is damp and muddy. The platform provided a place where people could pray or meditate, without getting their feet wet.

Croque Waterfront (EgAw-04)

Mélissa and Peter also revisited Croque Waterfront (EgAw-04), which has a fenced cemetery with both French and English burials and a recent monumental wooden cross. We also revisited waterfront Area E, so productive of early materials in 2004, with in-coming Memorial MA student Stéphane Noël, and tripped over some large sherds of Normandy CSW, reminding us that this area deserves more attention.

La Crémaillère (EiAv-03)

We also spent a day on survey at La Crémaillère (EiAv-03) with Stéphane, assisted by Marc Moingeon, a well-informed amateur historian from France. La Crémaillère is a large bay, just south of St. Anthony. Historic documents and maps indicate that there were

four to six fishing rooms there. Mélissa had noted that the Breton survey of 1680 mentions calvaries at La Crémaillère: one of the fishing rooms was named "Le calvaire de dessus la pointe des ancres". Maps of 1765 and the 1850s give the location of the "Pointe des ancres" fishing room. Once Mélissa had identified this fishing room, we explored the second terrace above the associated Area A beach. We soon observed tabular rocks, still visible through the present vegetation. Pulling the ground juniper away, we exposed Feature 9 -- a roughly square arrangement of tabular rocks. This seems to be an isolated structure and a disturbed rough plinth for a cross is as good an explanation of this structure as any. The landscape of Feature 9 at La Crémaillère and that of Feature 1131 at Dos-de-Cheval are quite similar, which reinforces the explanation. By scraping the vegetation edge, near the water to the east of Feature 9, Peter and Stéphane recovered sherds of coarse earthenware resembling some of our identified Breton wares. Surface collection along the Area A beach to the east also recovered water worn sherds of Normandy CSW. We recovered later materials, including REWs from Area C, on the north side of the eastern cove of La Crémallière, as well as identifying several rock alignments and sod foundations, which likely relate to 19th- and 20th-century livyer occupations, by the ancestors of people now living in St Anthony.

Bread Ovens at EfAx-09 and EfAx-11

Geneviève Godbout's work at EfAx-09 focused on Features 22 and 952, identified as potential bread ovens during the 2004 survey. Her objectives were to assess what these features were, to date them and to document their relationship to the landscape. She worked with the assistance of Stéphane Noël. Feature 952 is a rectangular mound, partially washed away to the north, near a bedrock formation, close to the beach. In the taskscape of the fishing room, it would have been accessible but out of the way of other activities, such as fish processing. Although such positioning proved to be characteristic of bread ovens, it turned out that Feature 952 was not an oven. Excavation showed that it was a rectangular pile of rocks, with larger rocks at the perimeter and bottom of the accumulation. Underneath the rock pile laid an organic soil containing fish and pig bones, as well as *faïence brune* TGEW. This domestic refuse rested directly on the natural beach level and must have been deposited before the building. The function of Feature 952 is unclear. Geneviève and Stéphane identified a work area littered with 19th-century material along the south or landward side of the structure. The feature itself is quite level and it might well have served as the foundation for a structure. The Cloué map of 1858 indicates a building here.

Feature 22 is an oval mound, also slightly eroded on its seaward or northern side. It is also located in an accessible but not central area of the site, close to the beach, near bedrock. On the surface of Feature 22, Geneviève and Stéphane identified an ash deposit containing a musket ball, lead spills and pipe bowl fragments, suggesting a 19th-century camp-fire, perhaps involving lead casting, post-dating the collapse of the feature. The upper strata of the Feature 22 mound were composed of rocks and stones, some still *in situ* in a donut shape, some scattered around the feature, all intermingled with a brownish-red clay-like soil. The collapsed structure of the bread oven also yielded a few brick fragments but no diagnostic artifacts. The first traces of the oven's structure exposed were two alignments of stones arranged in a semi-circle, in a yellow clay. It took weeks for Geneviève and Stéphane to work their way through this material but fortunately Rébecca Janson was able to assist them late in the season to uncover a semi-circular dry masonry wall, the base of the oven wall. Inside the oven we found a red, clay-like but gritty soil and, underneath it, a red gritty soil with fragments of coarse clay tile, fired clay and charcoal, representing the oven baking surface, which seems to have been just over 2m in diameter. Some loose rocks, themselves lying on a heterogeneous brown clay-like loam, filled the oven base to insulate the baking floor above against humidity and cold.

Outside the oven, Geneviève and Stéphane uncovered a succession of events associated with activity around the bread oven, including a thick layer of charcoal, about 25 cm below the surface. Underneath this, a grayish loam with charcoal fragments yielded interesting material – including REW, fish hooks and a Huveaune CEW pot from southern France, with lugs and holes for suspension. From about 40cm to 90cm below surface, we could see the builder's trench of the oven base, dug into deposits from a previous phase of occupation. Events associated with this earlier phase contained ashes and charcoal, brick fragments, mortar and food-associated artifacts -- REW creamware, a knife handle and fish, pig and goat bones -- all of which suggest food preparation, perhaps even baking in an earlier oven. A linear dry masonry structure, with traces of wood and a post hole could be the remains of a shelter or a shed associated with the structure that was destroyed before the Feature 22 bread oven was even built. The Feature 22 oven was also likely protected by a shelter, perhaps even a tent -- as a spike wrapped in ropes found in an associated event suggests. The material culture associated with Feature 22 dates from the first half of the nineteenth century. There are no significant gaps in the dates of the events excavated,

which suggests that all phases of occupation occurred within a relatively short period of time.

Northeast Crouse (EfAx-11)

Geneviève and Stéphane also joined Peter on a survey of Northeast Crouse (EfAx-11), where the 2004 survey had identified a potential bread oven mound at Feature 19, towards the western limits of the site. Removal of vegetation and some small test pits indicated that this resembles Feature 22 at EfAx-09 in its composition of rocks and stones, its circular donut shape, and the presence of a burned red-brown soil. Again, this feature is located near key activity areas of the fishing room, as reflected in the remnants of a stage and other work areas, but is also slightly out of the way of traffic paths. These structural characteristics and locational patterns may well be typical of bread ovens at French fishing rooms of the region.

Other Features at EfAx-09

We did some other testing and recording of other features around the Dos de Cheval/Champ Paya site. Peter recorded a rectangular vegetation shadow, Feature 1043, high on the slope above waterfront Area C. A row of tabular rocks along the northern and downhill edge suggests that this might be the footprint of a cookroom or similar structure. Harley noticed some linear rock alignments in the middle of the higher terrace Area D meadow and Peter mapped this as Feature 1109. Closer examination revealed a rectangular vegetation shadow of coarse woody shrubs on a slightly raised cobble platform, bounded in places with larger rocks. This is almost certainly the delimited "galet" made for drying fish, shown on several early 19th-century maps.

Genille (Kearney's Cove), EgAw-07

The seasonal French fishing station of Genille, in Croque Harbour, was settled in the 19th century by the Kearneys, an Irish family working as *gardiens,* or caretakers, for French fishermen who had seasonal fishing rights but who were themselves banned from over-wintering. EgAw-07 consists of a lower terrace nearest the beach and the slope leading up to the open upper terrace, extending east towards the ponds and woods further inland. A large ravine and stream cut through these terraces and descend to the cove. The site is confined by steep rock escarpments to the north and south. It was identified in the 2004 Petit Nord survey as having potential for understanding the French migratory fishery and subsequent Irish settlement. Memorial's MA student Jennifer Jones returned to Genille this past season to locate and explore the Irish occupation of the site, ably assisted by another student of archaeology, her father Rod Jones.

Jennifer's excavations focused on a house depicted in a late 19th-century photograph by Julien Thoulet. House Feature 101 is situated on a gentle slope near the ravine. Exploratory excavations indicate that it was built on wooden posts, although on its uphill side it appears to have been cut into the slope. Jennifer and Rod recovered a wide range of artifacts relating to the *gardien* occupation, including coins dating to the mid-19th century, hardware, bricks, bottle glass, personal effects such as beads, buttons, textiles, clay tobacco pipes, a tortoise shell comb and part of a heart-shaped locket, fishing hooks, cutlery, and fragments of a cast iron pot. The *gardiens* were paid by their employers in supplies but also made purchases from British merchants and both these sources are visible in the material culture. Ceramics recovered were both French and British. The excavators recovered a lot of transfer-printed and sponge-decorated REWs, including some with French maker's marks. Other examples of French ceramics include Normandy CSW and several types of faience TGEW. Ceramics possibly obtained from the British merchants include REWs, Canadian gray and white salt-glazed CSWs, porcelain, REW lustreware, and REW Jackfield ware.

Excavation located a French fire pit used both for cooking and preparing lead cod jiggers, nearer the stream, several meters downhill from house Feature 101. The fire pit deposit itself was covered with bricks fallen from a toppled structure. The deposit above the brick contained artifacts contemporary with those from house Feature 101, indicating that the French abandoned use of that area of the site just before or around the time the house was built. Jennifer recorded almost 50 other features on the 6 acres of cleared land around the site, including house depressions, fish stores, an old shop, root cellars, a privy, dams, and lazy-bed gardens. She identified the remnants of *galet* cobble deposits, used by the French to dry fish as well as a possible cookhouse near a pool created in the smaller stream in the southern upper terrace. Most of the features, however, relate to the 20th-century occupation of the site, as Kearney's Cove was inhabited until around 1960, when it was abandoned during Newfoundland's resettlement program.

Survey

Sans Fond, EdBb-02

Early in July, Peter and Geneviève Godbout had a chance to travel with Marc Moingeon, our visitor from the island of Bréhat in Brittany, down to Hooping Harbour with former residents Eamon and Elwood Randell. The Randells reported that they could recall that gardeners in the Northeast Arm of Hooping Harbour would sometimes find clay tobacco pipes and with its location reasonably near the open sea, this seemed the most likely location for the French fishing

station of Sans Fond. Marc was looking for the grave of Pierre Simon, a boat master from Bréhat who died at Sans Fond in 1662 and was buried there, after being ransomed by his family from years as a prisoner of Algerian pirates. The Randells led us to Feature 1, two 20th-century graves in the open wooded area of balsam fir and birch, just inland from the first sandy terrace above the active beach. There are two other larger mounds a little to the northwest, which might be earlier graves. Feature 2 was a lazy bed potato garden somewhat to the southwest of the graves. It is typical of several in the area, many with distinct lynchets around them. The soil is essentially just sand and must have taken a lot of manuring with kelp and capelin.

Beach survey identified Feature 3, an alignment of four large rocks, buried at the same level in the sand of the beach, near the vegetation edge at the base of the sand dune, about half way up the beach to the west. Feature 3 lies between 2 notches in the sand dune which give access to the sandy beach terrace above. Surface survey of the beach produced only one fist sized piece of ballast flint from the vegetation edge at the base of the sand dune. Feature 5 was a pathway, cut or worn into the sand, about 0.5 to 1 m deep, running from the area of Feature 2 and the other garden beds to the active beach. Despite the scant material culture, we concluded that Northeast Arm is likely the French fishing room of Sans Fond.

EgAw-05, Southwest Croque and EgAw-10, Millions

On an expedition to Millions, Peter, Stéphane and Geneviève Duguay revisited Southwest Croque, originally surveyed in 2004. Surface survey of the Area B cobble beach added quite a bit of material to our collection, including some good Normandy CSW, a sherd of brown faience, as well as Canadian Gray CSW. From there, they made their way overland to Millions, experiencing some difficult passages across crevasses, a small river and sharp rocks. Millions consists of two sand and cobble beaches, the larger to the east is only perhaps 30-40 m wide and the western one is part of a narrow cove, which might have made a good stage landing area in good weather. As we approached the site, anthropogenic vegetation became quite obvious, in the form of buttercups, clover, and alexanders. Feature 1 was a small made galet of sub-tabular rocks and stones, inland from the main sand and cobble beach. Feature 2 was a pathway marked with vegetation shadow of buttercups, leading southwest from the Feature 1 made galet, towards the main beach area and Feature 3. Feature 3 was a vegetation shadow of alexanders, buttercups and chives, in a rectangular niche, about 50 m inland and northeast from the main beach. Millions has everything needed for a fishing room: water from the river nearby, fish presumably, a cobble beach and some areas inland that could be prepared as galets. But these are not extensive and landing must have been difficult on windy days, like the one when we visited. No doubt this is the French fishing room known as Millions -- but it was not a great place to fish and therefore not likely a great place for further archaeology.

Help and Acknowledgements

Memorial MA candidate Sarah Newstead returned as our field lab director, assisted by Alison Small. They were helped by Geneviève Duguay (on leave from Parks Canada in Quebec), who also did some survey work in difficult terrain at Millions. As ever, Joan Simmonds and Colleen MacLean of the French Shore Historical Society helped us out in countless ways, including signing up our popular cook, Angela Chaytor. Gilbert Chaytor gave Mélissa and Rébecca a great welcome to Northeast Crouse. We gratefully acknowledge financial support by SSHRC, the Provincial Archaeology Office, ISER, the Smallwood Foundation for Newfoundland and Labrador Studies and Young Canada Works.

Boat ramp Feature 1021, uncovered in waterfront Area C at Dos de Cheval, Crouse, EfAx-09: rows of tabular rocks alternate with decayed wood in a structure used in the mid-18th century by Breton and Norman fishermen. (Pope, Burns, Jones and Godbout)

Bread oven Feature 22, excavated in Area B at Dos de Cheval, Crouse,
EfAx-09: a small section of the masonry base wall of the 19th-century oven is visible in the mid-distance left, under the collapsed rock debris of the dome. (Pope, Burns, Jones and Godbout)

SUMMARY OF 2007 FIELDWORK AT IGLOSIATIK AND KOMAKTORVIK FIORD

Peter Whitridge, Memorial University
James Woollett, Université Laval

In July Peter Whitridge (Memorial University of Newfoundland) and a crew from Nain (Gabriel Suarak, Brendon Dicker) and MUN (Don Butler, Dave Knill) carried out archaeological mapping, geochemical sampling and test excavation at the site of Iglosiatik, on an island southeast of Nain. Iglosiatik is a winter village that appears to have been first occupied during the early colonization of the central Labrador coast by precontact Inuit groups from further north. It was previously investigated by Susan Kaplan, who excavated two semi-subterranean winter houses in the early 1990s, and revisited, sampled, and tested in 2007 as part of an effort to document the Inuit understanding of the Labrador environment during the early settlement period. Four test pits were excavated to sterile, producing both precontact (slate harpoon head end blade) and contact-era material (iron nails).

In early August the crew returned to Nain and joined up with James Woollett and students from Université Laval (Maryse Clouthier-Gelinas, Guillaume Leclerc), as well as bear monitors (John Andersen, John Merkeratsuk) and another field assistant (Dennis Merkeratsuk) from Nain. This group travelled by longliner to northern Labrador and set up camp next to the Inuit winter site of Komaktorvik 1 (IhCw-01), which was first investigated by the Torngat Archaeology Project in the late 1970s and later revisited and further tested by William Fitzhugh. Test excavations were conducted next to precontact and historic Inuit winter houses at the western and eastern ends of the site, generating assemblages that spanned the Middle Dorset through later historic periods. The site appears to have been occupied over a much longer period, but more intermittently, than analogous sod house sites in nearby Nachvak Fiord, likely reflecting an interesting dimension of episodic Inuit settlement expansion and retraction. It also exhibits a distinctive progression of house styles that culminates in an unusual late historic variety of house group, composed of tiny, discrete dwellings with radiating entrance tunnels, that is duplicated at the nearby winter site of Big Head 1 (IiCw-03), at the mouth of Kangalaksiorvik Fiord. Testing and sampling were also conducted at the latter site, and numerous small Paleoeskimo and Inuit sites recorded or revisited in the surrounding area.

Gabriel Suarak wrapping a whale bone artifact next to the House 10/11 test at Iglosiatik. (Whitridge and Woollett)

Brendon Dicker and Jim Woollett examining the House 2 test at Komaktorvik 1. (Whitridge and Woollett)

Komaktorvik 1, looking south. (Whitridge and Woollett)

GEOARCHAEOLOGICAL INVESTIGATIONS AT THE FERGUSON BAY 1 SITE (FfDn-01), ASHUANIPI LAKE, LABRADOR: A PRELIMINARY SUMMARY

Richard L. Josephs, University of North Dakota
Jamie Brake, Memorial University

During August 2006, a geoarchaeological investigation was conducted by Dr. Richard L. Josephs, University of North Dakota, at the Ferguson Bay 1 site (FfDn-01) located along the western shoreline of Ashuanipi Lake, east of Labrador City. The site was excavated by Mr. Jamie Brake, a graduate (M.A.) student in the Department of Anthropology and Archaeology, Memorial University of Newfoundland. The site covers 2000 m^2 and dates to, at least, 1640 ± 50 ^{14}C yrs BP (Beta-226315). It is interpreted as having been consistently occupied by small groups for short durations.

Thirteen samples were collected from test unit profiles for micromorphological analysis (Fig. 1). Micromorphology is the study of undisturbed soil and sediment in thin section with the aid of a petrographic (polarized-light) microscope. Its principal objective at Ferguson Bay 1 is to elucidate the paleoenvironment of the lake margin setting during the mid- to late Holocene through the identification and interpretation of depositional and post-depositional (namely pedogenic) microfeatures preserved in the sediments and soils.

Two distinct soils were identified at Ferguson Bay 1: an upper (younger) Orthic Regisol overlying a buried Orthic Humo-Ferric Podzol (a paleosol) (Fig. 2). The surface of the buried Podzol (the Ahb-horizon) is the principal archaeologic horizon, contacted roughly 25 cm below the current ground surface.

Throughout both soils, the micromorphology revealed an accumulation of primarily moderately to well sorted, unoriented, medium and coarse sand-size monomineralic and polymineralic grains with a single grain microstructure and a coarse monic related distribution pattern (Bullock et al. 1985; Stoops 2003). The most readily occurring minerals were quartz, orthoclase and plagioclase feldspars, muscovite and biotite micas, amphiboles, pyroxenes, and opaques (typically iron-oxide mineral grains). The majority of the polymineralic grains (i.e., rock fragments) evince derivation from metamorphosed granitic rocks. Chert fragments were also observed in all 13 thin sections. Organic remains (e.g., plant residues, charcoal, and bone fragments) were identified in 10 of the 13 sections. No microscopic evidence of cryo-, floral-, and/or faunalturbation was detected despite the fact that all three of these processes continually affect this site. Aside from the presence of the chert grains and flecks of charcoal, and possibly that of some of the bone fragments, no distinct microscopic evidence of anthropogenic impact was observed in any of the sections. As evidenced by the micromorphology, the cumulative effect of natural (geologic, pedologic) processes greatly exceeds the human impact at Ferguson Bay 1.

In addition to micromorphology, the age of the buried Podzol was estimated based on the Podzol Development Index (POD Index) (Schaetzl and Mokma 1988). The POD Index is a numerical index of soil development designed specifically for use with Podzols. It evaluates the difference between various Podzol characteristics, primarily the Munsell color (value) contrast between the Ae- and B-horizons, in order to determine a geomorphic surface age, i.e., the higher the POD Index, the older the soil. The calculated POD Index for the buried Podzol at the Ferguson Bay 1 site is *2*. When plotted on the POD Index vs. Age graph constructed by Schaetzl and Mokma (1988, p. 242), an age estimate of approximately 3600 BP is obtained.

It appears that the original fluvio-lacustrine deposits were reworked by fluctuating lake levels (transgressive-regressive phases) during the mid- and late Holocene, the combined result of deglaciation of the area (ca. 7000 BP) and subsequent isostatic rebound. Once the unvegetated shoreline was subaerially exposed, wind became the predominant erosional and depositional process affecting the lake margin sediments. The clustering of grain size within the coarse to medium sand fraction - those particles between 1.0 and 0.25 millimetres - and the high degree of particle sorting (overall well to moderately well sorted) attest to eolian winnowing and sorting (Ahlbrandt 1979; Leigh 2001). Subsequently, pedogenesis began to effectively operate across the stabilized landscape surface. The presence of two soils indicates that this cycle repeated itself, at least, twice at the Ferguson Bay 1 locale: 1) fluvio-lacustrine deposition/reworking, surface exposure, eolian winnowing, and pedogenesis following deglaciation of the area and prior to the site's occupation by humans (ca. 7000 to 2000 BP), and 2) fluvio-lacustrine deposition/reworking, surface exposure, eolian winnowing, and pedogenesis following the initial occupation of the site, which dates to 1640 +/- 50 ^{14}C yrs BP. It is hoped that geoarchaeological (micromorphological) investigations at Ashuanipi Lake will provide evidence concerning shoreline stability during the mid- to late Holocene that will impose temporal and spatial constraints on human occupation of this area.

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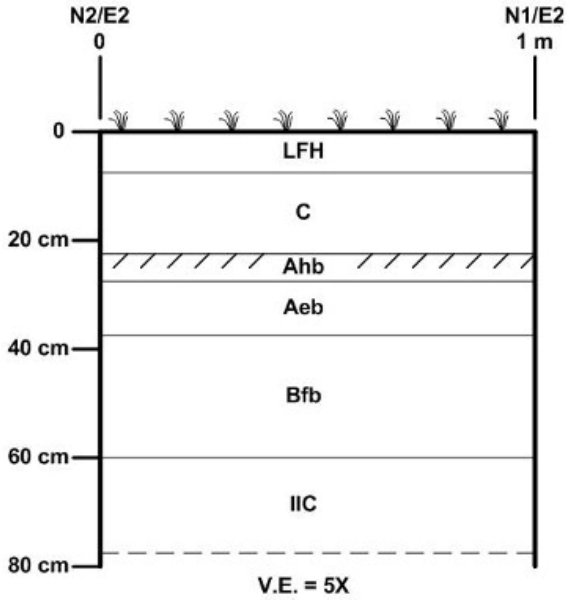
Figure 1: Josephs collecting a micromorphological sample. (Josephs and Brake)



LHF – 10YR 2/1 (black) loam to sandy loam, granular, loose, many very fine to very coarse roots; very abrupt, smooth lower boundary

C – 10YR 6/4 (light yellowish brown) sand, granular, loose, clean, very abrupt, smooth lower boundary

Ahb – 10YR 2/1 (black) sandy loam, granular, loose, organic-rich; very abrupt, smooth lower boundary

Aeb – 10YR 7/1 (light gray) loamy sand, granular, loose, clean, increasing coarse sand content; very abrupt, smooth lower boundary

Bfb – 10YR 5/2 (grayish brown) loamy sand, granular, loose, clean, increasing coarse sand content; very abrupt, smooth lower boundary

IIC – 10YR 4/6 (strong brown) gravelly loamy sand, granular, loose, contains granule-size clasts; lower boundary not observed

Figure 2: Ferguson Bay 1 (FfDn-01) soil profile: Orthic Regisol overlying Orthic Humo-Ferric Podzol (Josephs and Brake)

BURNSIDE HERITAGE FOUNDATION INC. SUMMARY OF 2007 ARCHAEOLOGICAL SEASON

Laurie McLean
Burnside Heritage Foundation

The Burnside Heritage Foundation Inc.'s 18th archaeological field season ran from late June until mid-November, 2007. Salvage excavations were conducted along an eroding bank at the multi-component Beaches site (DeAk-1). Excavations took place at the Dorset Paleoeskimo Sailor South site (DeAj-5), in the community of Salvage, when weather did not permit travelling to the Beaches by boat. An 11 metre long wooden breakwater was built at the Beaches following the excavations. Brief visits to other local sites took place throughout the season. The BHF's interpretation centre was open daily and boat tours were provided to the Beaches and Bloody Bay Cove sites. A week-long survey of Bonavista immediately north of the Beaches site was carried out near the end of the season.

The Beaches (DeAk-1). (McLean)

The Beaches (DeAk-1)

The Beaches (DeAk-1) is the largest aboriginal habitation site identified within Bonavista Bay and one of the largest in Newfoundland. Maritime Archaic Indians, Paleoeskimos and Recent Indians lived there between 5000 and 250 years ago. Historic information suggests this locality encompassed 35,000 m2 in 1872 when T.G.B. Lloyd, Newfoundland's surveyor -general, visited there. Rising sea level has destroyed most of the site which currently occupies 4,000 m2 and erosion continues along its 150 metre-long southern border.

The effects of erosion at the Beaches were noted by Helen Devereux during the initial archaeological activity at the site during the mid-1960s. The BHF has been monitoring erosion there since 1989 and in 1995 started a program of building breakwaters protecting the southern border. A 90 metre long structure erected in 1995 and 1998 did not fully eliminate erosion behind it so the BHF began installing a more water-tight barrier in 2004. This has proven more effective. During 2004-2006, three segments of wooden retaining walls, totalling 20 metres in length, were built at the Beaches following salvage excavations along the bank. In 2004 and 2006 a 14 metre-long wall was placed in front of Area A which contains the remains of seven Beothuk mamateek, associated features and older material. A six metre long barrier was built in front of late prehistoric Recent Indian hearth remains 40 metres west of the mamateek cluster in 2005. Partial excavation of the hearth yielded 4456 stone artifacts, a small faunal sample and extensive fire-cracked rock. Charcoal from the feature was dated to 560 + 40 BP (Beta 210315), indicating that Little Passage people created a substantial hearth/activity area well removed from where their Beothuk descendants would later construct 19 mamateek 150 years later.

The target area in 2007' was a section of bank extending eastwards from the work in 2005. An eleven metre long section of bank, from S12.4 W61 - S12.5

W50, was straightened in 2007. This required digging strips from 12-81 cm wide along the bank, depending on the extent of erosion. Up to 70 cm of gravel had been washed away from under the culture layer, leaving the latter unsupported and destined to ultimately fall to the beach where tidal action would complete the soil removal process, destroying archaeological data and depositing artifacts on the beach surface. Fire-cracked rock was extensive throughout the excavation, becoming less common moving eastward. The hearth feature ends at W53.8, showing that it is at least 7.2 metres long. The hearth's western termination point has not been identified. A total of 4068 stone artifacts, including 3900 flakes, were recovered from the total excavated area of 3.7 m2. 3525, 86.7%, of these items were made on Bloody Bay Cove rhyolite, obtained from the quarry eight kilometres to the south. There were 513 quartz artifacts which is by far the largest collection of this material recovered from the Beaches site.

The Beaches (DeAk-1), eastern half of 2007 straightened bank. (McLean)

Charcoal associated with a dense cluster of rhyolite flakes, three large bifaces and fire-cracked rock in S14 W59 was dated to 1060 - 930 BP (calibrated) (Beta 234870), revealing Recent Indian activity generations before the date of 640 - 520 BP (calibrated) (Beta 210315), obtained from a similar deposit four metres away in 2005. The charcoal used for the latter date was found at a slightly higher elevation than the older one, suggesting that this hearth experienced intermittent long-term usage by Recent Indians. Area B, which extends north-eastwards from the 2005/2007 excavations, contains Paleoeskimo and Recent Indian material, providing evidence for even longer-term activities within the same part of the site.

Related Salvage Work At the Beaches

Thirty-one metres of wooden retaining wall have been built at the Beaches since 2004, but erosion continues over the remaining 120 metres of the southern border. 57 stone artifacts were collected from various points along the vertical surface east and west of the 2007 excavation. Unfortunately, the ongoing erosion will deposit many more artifacts into the south beach tidal zone before the next salvage excavations and breakwater construction can take place. Therefore, at the end of each day's activities at the site this season, sections of severely slumped bank outside the excavation were cut away with a shovel and placed into buckets, noting their provenience. These samples were brought to Burnside where they were excavated/screened on poor weather days. 55 buckets of largely intact cultural

The Beaches (DeAk-1); new breakwater, upper centre; 2005 structure, lower centre; 1995 breakwater, right. Water level is high tide. (McLean)

soil were collected in this manner from 12 locations along the bank west of the 2007 target area.

Analysis of the buckets' contents produced 732 stone items, including 629 flakes: 356 flakes or 48.6%, of the total sample was Bloody Bay Cove rhyolite along with 331, 45.2%, quartz objects. The large proportion of quartz artifacts follows the pattern in the 2007 excavated area, suggesting a former Recent Indian interest in working this material. Another one of the highlights of this pre-emptive activity was the discovery of a Recent

Indian projectile point fragment made on chert. This object was found along with 53 other lithic artifacts from S13 W39.

The Beaches: Recent Indian projectile point fragment screened from eroding bank. (McLean)

Further evidence of the extent of destruction suffered at the Beaches was our recovery of 380 stone artifacts from the pebble beach surfaces skirting the site's eastern and southern borders. 358 of these items were Bloody Bay Cove rhyolite. This year's sample, which was by no means exhaustive, includes two Recent Indian projectile points, a Dorset Paleoeskimo endblade, 14 bifaces and eight cores. These fringe areas contain a virtually endless supply of mostly waterworn flakes and scarcer more detailed items removed from their original context by the destruction of the locality.

Sailor South (DeAj-5)

Sailor South (DeAj-5) is a Dorset Paleoeskimo site located 40 metres south of the multi-component Sailor site (DeAj-1) in the community of Salvage. The two localities are separated by a 10 metre high bedrock outcrop. Sailor South was discovered during the 2002 BHF field season when BHF workers found stone artifacts on the surface of ATV ruts. Excavation of 12m2 and a number of test pits, along with surface collections since 2002 accumulated 3209 stone artifacts pertaining to Dorset Paleoeskimos and 19 fragments of objects dating to the historic occupation of Salvage.

Most of the Paleoeskimo artifacts came from a 1 x 6 m trench dug in 2005 that contains evidence for partial hearth remains and associated stone tool manufacture. Charcoal from this trench was dated in 2007 to 1180-930 BP (calibrated) (Beta 234871), representing a late Paleoeskimo presence. This year's test excavations continued our search for significant features at the site. A four metre checkerboard dug in a previously untested small meadow produced 22 stone artifacts, including one endblade fragment and 11 historic items. Excavation of two m2 perpendicular to the southern end of the 1 x 6m trench recovered 964 stone objects and seven historic artifacts. These consist of 640 items made on Bloody Bay Cove rhyolite and 290 chert examples.

Brief Site Visits

56 archaeological sites have been identified along the coast from Happy Adventure to Glovertown. Approximately one-half of these suffer from natural erosion with pedestrian traffic posing an additional threat to all the localities. The BHF monitors the conditions of local sites by visiting as many as possible each season. Surface collections are implemented when warranted. 67 stone objects were collected at the Sailor site (DeAj-1) which was largely destroyed by excavation of a gravel pit early in the 1950s. BHF crews have accumulated over 4400 items from the Sailor site which make up 99% of the assemblage from there.

BHF crews made a number of visits to the Bloody Bay Cove quarry and collected artifacts from the surface of two of the 11 sites making up this complex. Surface clusters of rhyolite flakes, other rhyolite objects and granite hammerstones were photographed at the Bloody bay Cove Summit (DeAl-9). Some of these surface deposits were collected and attempts were made to reassemble the flakes. Artifact-filled talus slopes associated with worked bedrock ridges at the Summit were examined and sampled. Cataloguing of this collection is ongoing. 1331 rhyolite artifacts were collected from a small eroding section at the Charlie site (DeAl-11), the largest worked outcrop and reduction centre within the quarry. 1321 of these items were flakes.

BHF employee Minnie Brown standing on part of Bloody Bay Cove Summit (DeAl-9) talus slope. (McLean)

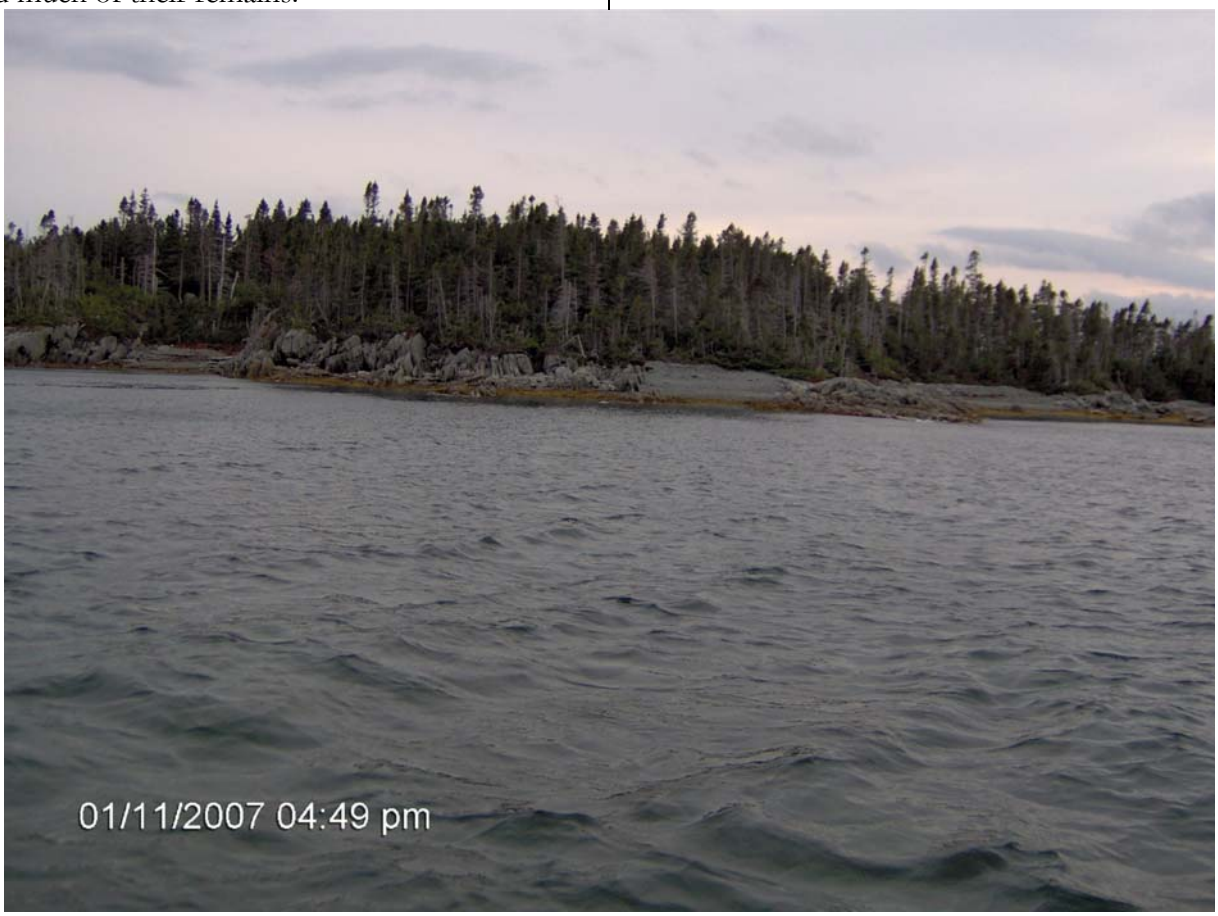
Archaeological Survey

During the fall, the BHF was awarded a contract by Newfoundland and Labrador's Provincial Archaeology Office to conduct an archaeological survey of islands and coastline within a region northwest of the usual BHF study area. Long time BHF employee Minnie

Brown and Burnside fisherman/former BHF employee Howard Moss assisted Laurie McLean in performing the appraisal. Poor weather during late October-early November prevented the crew from visiting all of the designated study area. However, 13 new sites, including seven aboriginal occupations and six historic localities, were recorded.

All of the aboriginal sites yielded small, non-diagnostic lithic assemblages totalling 90 artifacts. 87 of these are flakes, consisting of 75 "flakes" along with 12 other more specialized flakes. There are 29 examples of Bloody Bay Cove rhyolite along with 36 other rhyolite specimens that differ with respect to colour and texture to a lesser degree. Volcanic bedrock occurs throughout this study area which raises the possibility that sources of rhyolite may be closer than Bloody Bay Cove. While further research should provide more information about some of these localities, many are eroding and may not contain significantly more data. Most test pits dug near productive units failed to find any substantial distributions of cultural material suggesting that many of these occupations were small-scale and/or erosion has destroyed much of their remains.

The historic sites contain structural remains found on the surface. All materials present, except for the remnants of a small building in Butler's Cove, Dover, indicate twentieth century use and abandonment. Test pits dug around the Butler's Cove feature did not produce any more artifacts. The widespread absence of older historic material throughout our tests can partly be attributed to the relatively late settlement of Dover and Hare Bay, the region's two largest communities, in the latter nineteenth century. Pitt Sound Island, Lakeman's Island and some of the outer headlands of the study area were traditional winter camps for early settlers of Deer Island, the Gooseberry Islands and other "outer" coastal settlements, meaning that vestiges of such camps may be extant in some of the untested coastline. Furthermore, some of the growing number of cottages along this coastline may be built on attractive landings that have been used by generations of Newfoundland liveyeres. A fourth consideration acknowledges that most of these historic camps probably were rather basic, resulting in a thin archaeological deposit that is difficult to find.



Lakeman's Islet (DfAk-01); unknown aboriginal site (behind centre beach). (McLean)

Public Interpretation of BHF Archaeology

The BHF utilizes archaeological data to depict the importance of locally available resources, supplemented by non-local options, to pre-contact and historic residents of Bonavista Bay. The foundation operates a small museum/archaeology lab in Burnside which received 1100 visitors in 2007. Over 175 people visited ongoing excavations at the Beaches and Sailor

South where they received onsite interpretation from BHF workers. 250 visitors were recorded at the Long Chute Lookout overlooking Burnside and the surrounding coast. Public response to the BHF program of archaeological research and interpretation is extremely positive.

Acknowledgements

Newfoundland and Labrador's Provincial Archaeology Office issued Permit No. 07.19 to Laurie McLean to conduct archaeological research and surveying within Bonavista Bay in the employ of the BHF. Provincial Cultural Economic Development Program funding provided Operational Support for general BHF activities and Project Funding for constructing the Beaches site retaining wall. The PAO paid for two radiocarbon dates. Newfoundland and Labrador's Conservation Corps contributed a Green Team consisting of four students who assisted in archaeological excavations and lab work over eight weeks in preparation for building the Beaches retaining wall. HRSDC contributed Canada Summer Jobs funding to hire two students for ten weeks and a Jobs Creation Partnership that paid eight adult workers for 19 weeks. The BHF contributed money raised at its interpretation centre and through onside donations.

Permit Nos. 07.40 and 07.40.01 were issued for the implementation of the "Reaches" survey. The latter activity was financed by the PAO.

EXCVATION OF THE RECENT INDIAN SITE, ROBERT'S COVE-1

Robyn Fleming
Memorial University

The site DjAv-5, known as Robert's Cove 1, was first recorded in 1987 after an archaeological survey of Western Notre Dame Bay and Green Bay was conducted. Artifacts recovered from the 1987 survey indicated the site was occupied by a Recent Indian group, likely the Little Passage Complex. Robert's Cove 1 was believed to be a habitation site however excavation of the site in the summer of 2007 challenged this hypothesis. A team from Memorial University spent a total of eight weeks excavating the site. At various points throughout the summer the team consisted of John Higdon, Corey Hutchings, Rebecca Knapp, Lindsay Swinarton, and the author.

Robert's Cove 1 is located on the western shore of Great Triton Harbour, approximately 1 kilometre across from the town of Triton, located on the eastern shore (Figure 1). My goal in excavating a Little Passage site is to gain a better understanding of these people prior to European contact, when they become known as the Beothuk. Robert's Cove-1 lies in a resource rich area. Many residents in the town of Triton, adjacent to the site, are involved in the fishing industry. Marine species such as crab, capelin, squid, mackerel and seal can be harvested from the area. While very few faunal remains were found on the site mussel shells were recovered from a red ochre deposit. In addition, numerous scrapers were excavated from the site indicating the potential harvesting of resources such as caribou or seal for the production of clothing and mamateek coverings. However, as mussel shells are the only definite remains indicating a seasonal subsistence pattern the tentative season of occupation is late spring to fall.

Lithics recovered from the site include a low quality blue-grey chert, iceberg chert, red-brown chert and Ramah chert. The majority of tools recovered were constructed of blue-grey chert. Due to the large quantities of this material on site and its frequency to fracture it is believed to be a locally available resource. Historic artifacts were also present on site but the majority of these were located in the upper stratum and often not associated with Little Passage materials. The few historic artifacts that did occur in the same occupation layer as Little Passage materials appear to have been deposited by residents of Triton after tilling the ground for the construction of potato furrows.

Unfortunately no features were present on the site. It is difficult to ascertain the extent of a habitation structure as potato furrows dissect the area excavated. However, the absence of a hearth may designate a warm

weather occupation, supporting the late spring to fall hypothesis. The presence of red ochre without evidence of a ceremony or celebration may signify its use as a bug or insect deterrent again pointing towards a warm season occupation (Howley 1915:262; Marshall 1996:338). Finally, the high number of scrapers and low number of other artifacts recovered may indicate the site as an exploitation camp utilized when local resources were numerous.

Figure 1: Excavation of Robert's Cove 1 (DjAv-5). (Fleming)

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GEOARCHAEOLOGICAL RESEARCH AT IGLOSIATIK ISLAND AND KOMAKTORVIK FIORD, NORTHERN LABRADOR

Don Butler
Memorial University

During July and August of 2007, I visited two Inuit sites in northern Labrador to collect soil samples for geochemical analysis, which will provide the basis for my M.A. research project. Specifically, my goal is to distinguish the geochemical signatures of winter dwelling features such as lamp areas, storage niches, floors, sleeping platforms, and entrance tunnels. This is useful for both taskscape prospection and strengthening interpretations of the spatial organization of activities performed inside winter dwellings. Under the supervision of Dr. Peter Whitridge, I collected soil samples from six dwellings: three from Iglosiatik Island and three from Komaktorvik Fiord.

Iglosiatik Island is approximately 50 km south of Nain in outer Voiseys Bay. Investigations began at Iglosiatik on July 13, focusing on HbCh-1, an early Labrador Inuit (Thule) habitation site on the west end of the island's south coast. The site consists of sixteen semi-subterranean sod dwellings built into an arc-shaped terrace. During our 17 day stay, the site was mapped using a total station and test units were excavated between houses 7 and 8, 10 and 11, and at the tunnel mouths of houses 9 and 16. Considering the contents of these units, such as high frequencies of ground slate blades, ground nephrite drill bits, the sporadic appearance of iron and copper, and an absence of ceramics, this site was likely occupied between the 15th and 17th centuries. Kaplan (2000: 5) also provides radiocarbon dates for this site between A.D. 1400 and 1642.

HbCh-1Facing West. (Butler)

Locations for soil sampling were chosen according to similarities in surface vegetation, soil colour, and soil texture. Soil samples were extracted from houses 2, 12, and 13, and from an off-site control location using a stainless steel soil corer. The top 5 to 10 cm of each soil column was discarded to avoid testing surface horizons.

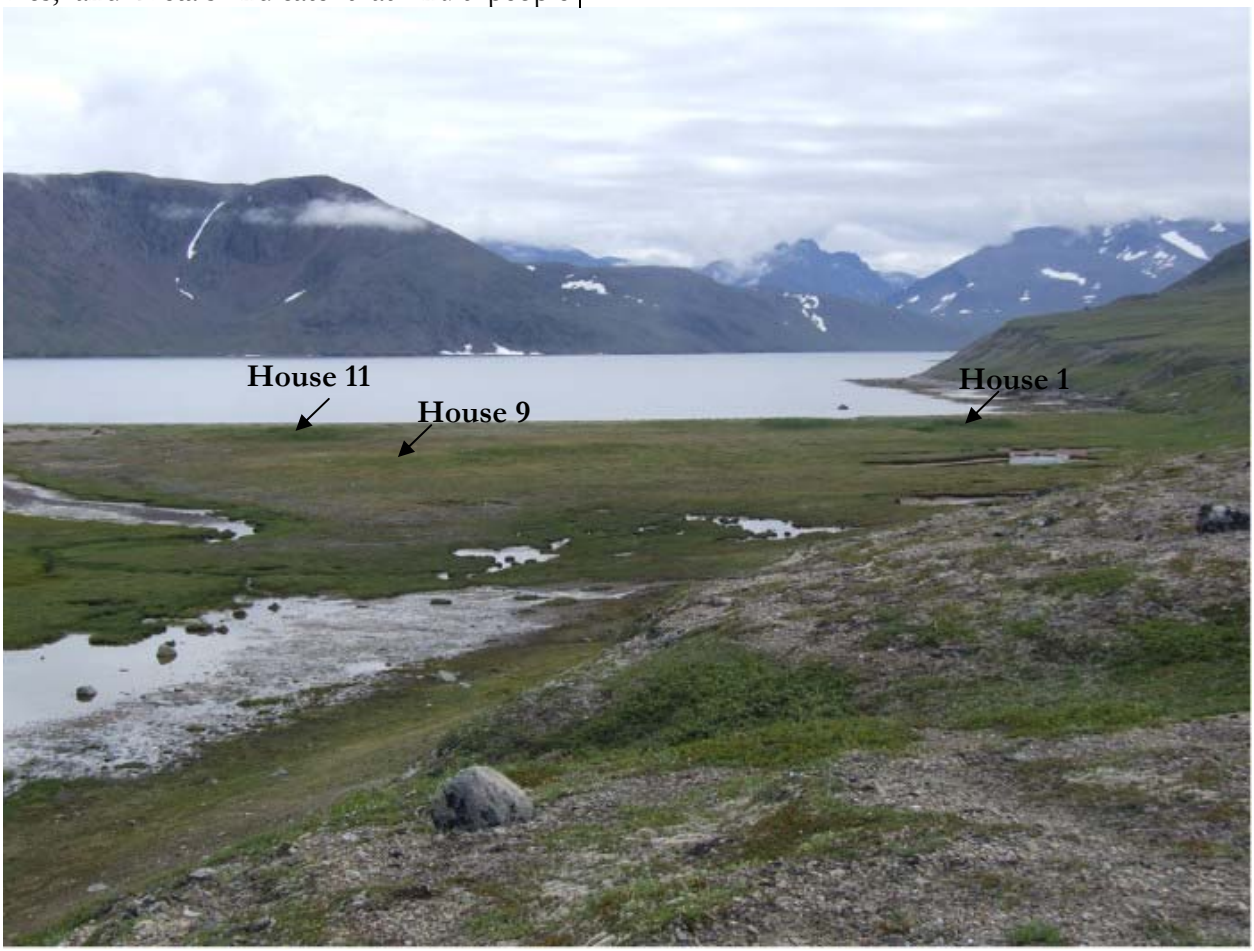
House 2, which is near the western extent of the site, was previously excavated by Kaplan (1983), and its size, shape, and interior arrangement are typical of early Labrador Inuit houses (Schlederman 1971: 68). This dwelling has an elliptical shape, an interior area of 16 m^2, and a single rear sleeping platform measuring 7 m^2. This house also has a kitchen niche adjacent to the eastern portion of the sleeping platform. The entrance tunnel opens to the south and measures 1 m wide by 5 m long. Soil columns were extracted from the floor, sleeping platform, lamp area, and entrance tunnel.

House 12 is near the middle of the main house row. It has a bilobate form, which was also common during the early Inuit occupation of northern Labrador (Whitridge 2004: 20-22). The west lobe's interior covers 18 m^2 and has a small rear sleeping platform measuring only 4 m^2. The east lobe is much smaller, measuring only 8 m^2. It has a small rear sleeping platform covering 3 m^2. The entrance tunnel, which opens to the south, measures 1 m wide, 5 m long, and has a 3 m^2 alcove protruding from its west side. Soil columns were taken from the floors and sleeping platforms of both lobes, entrance tunnel, and tunnel alcove.

House 13 is displaced approximately 12 m north of the main house row. This dwelling is small, having an interior area of only 11 m^2 and a 3.5 m^2 rear sleeping platform. The entrance tunnel, which is 1 m wide and 4 m long, runs along a north-south axis, but turns south-west near its mouth. Soil samples were taken from the floor, sleeping platform, and entrance tunnel.

On July 30th, the crew was moved 350 km north to Komaktorvik Fiord, which is in the Torngat Mountains National Park. Specifically, we investigated the Inuit component of IhCw-1, which is located on the outer fiord's west coast on a small sandy spit. The Inuit component of the site consists of 13 semi-subterranean sod dwellings that are distinguishable from their surroundings by the lush grass growing around them, indicating anthropogenically derived chemical enrichment (McCartney 1979). During the month of August, the site was mapped using a total station and test units were excavated near houses 1, 2, 5, 9, and 11. Chipped Ramah chert endblades, bifaces, and scrapers suggest that early Dorset people initially occupied the area. Radiocarbon dates for this component range

between 2515+/-70 and 2110+/-70 B.P. (Anton 2004: 160). Additionally, high frequencies of ground stone tools, ceramics, and metals indicate that Inuit people occupied the area from the early 15th to mid 19th century (Kaplan 1980: 648; 1983: 710, 741).



IhCw-1 Facing South. (Butler)

Soil sampling at IhCw-1 was conducted in the same manner as mentioned for HbCh-1. Since various phases of Inuit occupation are present at IhCw-1, houses representing early (15^{th}-17^{th} centuries), middle (18^{th} century), and late (19^{th} century) occupations were chosen for sampling. These were houses 9, 11, and 1 respectively.

House 9 is located at the east end of the site's northern house row, which consists of seven other dwellings. Its elliptical shape, interior area of 28 m^2, 9 m^2 rear sleeping platform, and 1 m by 5 m entrance tunnel suggest that it is an early Labrador Inuit dwelling. Moreover, European materials were absent in the associated test units, suggesting that the dwelling was occupied during the pre-contact period. Soil samples were recovered from the floor, sleeping platform, and entrance tunnel of this dwelling.

House 11 is dissociated from the rest of the dwellings at IhCw-1. Its sub-quadrilateral shape, size, and sleeping platform arrangement suggest that it is an 18^{th} century communal dwelling (Kaplan and Woollett 2000: 352). This house is rather large, having an interior area of 70 m^2. It also has three sleeping platforms: one at the rear and one on each side. The rear platform covers 9 m^2 and both side platforms measure 12 m^2 each. The entrance tunnel is 1 m wide, 4 m long, and opens northeast. Soil columns were taken from the floor, a possible lamp area, entrance tunnel, and each of the platforms.

Houses 1 and 2, which are located on the south-west portion of the site, represent the latest Inuit occupation of IhCw-1. The contents of test units associated with house 1, including banded annular wares, purple transfer printed wares, cartridge casings, rifle parts, and trapping equipment, suggests a 19^{th} century occupation. This house has a sub-quadrilateral shape, a total interior area of 40.5 m^2, and a single 9 m^2 rear sleeping platform. The lamp area is directly in front of the platform, roughly in the middle of the floor. House 1 also has a 6 m^2 alcove in its south-west corner. The entrance tunnel is 1.5 m wide, 8 m long, and opens to the southeast. Soil columns were removed from the floor, lamp area, sleeping platform, alcove, tunnel, and wall berm.

This fall, I processed fifty soil samples for x-ray fluorescence (XRF) and inductively coupled plasma –

mass spectroscopy (ICP-MS) analyses under the supervision of Pam King at the Memorial University Department of Earth Sciences Trace Element Laboratory. Sample processing and analyses were facilitated in accordance with procedures and standards discussed in Jenner et al. (1990), Longerich (1990; 1995), and Cook et al. (2004). In total, a suite of forty-three elements underwent measurement. XRF was used to measure sixteen common elements (Na, Al, Si, P, S, Cl, K, Ca, Mn, Fe, Ni, Cu, Zn, As, Ba, Pb) and ICP-MS was used to identify twenty-seven trace and rare-earth elements (Li, Rb, Sr, Y, Zr, Nb, Mo, Cs, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, Ti, Bi, Th).

Soils associated with particular dwelling spaces absorb liquid and particulate by-products from the tasks performed in them, which can be measured as elemental loadings such as increased concentrations of phosphorous. Essentially, the soilscape that specific cultural practices are enacted on serves as a chemical record for those practices, meaning that patterned elemental concentrations are reflections of socially structured behaviour. Thus far, partial results for house 9 at the Komaktorvik site are available. Compared to off-site control soil samples, soils from various spaces in this dwelling have significant increases in phosphorous, sulphur, scandium, copper, zinc, barium, and cerium, suggesting human sources. Once laboratory analysis is complete, I will identify the specific geochemical signatures of house floors, sleeping platforms, lamp areas, tunnels, and alcoves using multivariate statistics. Specifically, I will employ both correspondence and principle components analyses to determine the strength of association between elements and dwelling spaces, providing geoarchaeological insight into the spatial organization of Inuit households in northern Labrador.

	Control	Platform	Floor	Tunnel
Na_2O	2.44%	2.17%	1.67%	2.57%
MgO	4.27%	3.05%	2.41%	3.21%
Al_2O_3	12.70%	12.26%	10.44%	13.04%
P_2O_5	0.11%	0.47%	0.61%	0.29%
K_20	1.23%	1.27%	1.15%	1.43%
CaO	4.83%	4.26%	4.16%	4.36%
Fe_2O_3	6.88%	5.38%	5.14%	4.78%
S	469	1321	3860	1125
Cl	202	320	473	237
Sc	LD	15	16	LD
Cu	7.16	6.75	8.89	5.38
Zn	7.01	7.92	10.27	LD
Ga	15.54	15.85	14.59	15.93
Rb	22.74	23.83	21.59	27.30
Sr	275.30	281.48	262.81	300.32
Y	16.93	11.18	10.94	10.55
Zr	82.48	71.98	72.70	80.02
Ba	531.21	648.32	729.98	609.10
Ce	52.22	88	68	68.10

IhCw-1 House 9 Elemental Composition
(Oxides reported in % weight and elements in ppm). (Butler)

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PARKS CANADA ARCHAEOLOGICAL SURVEY AND EXCAVATIONS AT L'ANSE AUX MEADOWS, NATIONAL HISTORIC SITE OF CANADA

Todd Kristensen and Jenneth Curtis
Parks Canada and Memorial University

Parks Canada conducted archaeological excavations and survey work for three weeks in June at L'Anse aux Meadows, National Historic Site of Canada, on the northern tip of Newfoundland's Northern Peninsula. Two main components guided archaeological research at the site. The first component involved a renewed interest by Parks Canada and Memorial University of Newfoundland in the aboriginal occupations within the park boundaries of L'Anse aux Meadows National Historic Site (Figure 1). Though the Norse material earned the site its UNESCO status, a rich history of Native occupation exists including the Maritime Archaic, Groswater and Dorset Palaeoeskimo, and Recent Indian. New data from archaeological survey and targeted excavations of prehistoric Aboriginal occupation areas will be combined with existing information on Native occupations at the site (Wallace 1989, Wallace 2006) and incorporated in to the current body of archaeological knowledge of the National Historic Site and surrounding area. It is hoped that these efforts will result in a more complete and encompassing reconstruction of the prehistory and history of L'Anse aux Meadows.

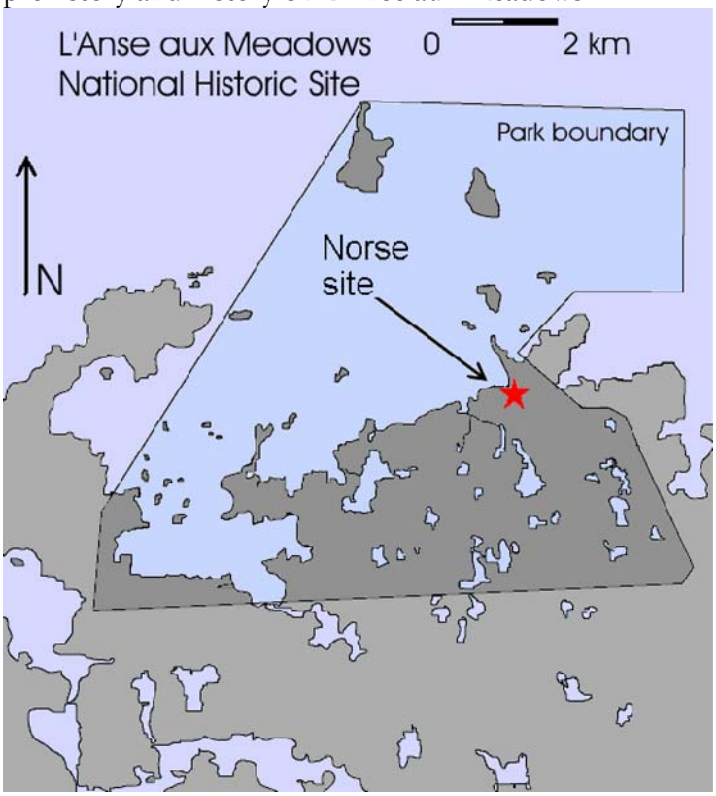

Figure 1: Park boundaries of L'Anse aux Meadows National Historic Site. (Kristensen and Curtis)

The second component of the 2007 fieldwork involved a number of small-scale excavation units in and adjacent to the Norse occupation area. The excavation of those units was motivated by: 1) a need to relocate Norse doorways in the reconstructed ruins, 2) a reassessment of previously determined cultural features near the shore of Epaves Bay, and 3) an independent research project that required sampling for invertebrate remains.

Fieldwork relating to the Aboriginal occupation was led by Parks Canada archaeologist Jenneth Curtis with assistance from Tony Adler (M.A. student at the University of Washington) and Todd Kristensen (M.A. student at Memorial University of Newfoundland). Excavations of the Norse structures were led by Birgitta Wallace (Archaeologist Emeritus, Parks Canada).

Aboriginal Occupations

Portions of the lower marine terrace west of Black Duck Brook and the Norse site were excavated in an effort to re-establish the site grid employed during previous Parks Canada excavations in the 1970s. The proper identification of previously determined Aboriginal occupation areas depended on the re-location of site benchmarks and excavated units.

Two permanent site benchmarks were identified and used to re-locate the site grid. Three 1 m² test units were then strategically placed to intersect the edges of previous excavation areas. One unit successfully encountered an excavation boundary while a second unit failed to detect any excavation areas or cultural material. A third unit encountered a previously undocumented cultural feature consisting of an arrangement of rock slabs. The stones likely represent a Dorset Palaeoeskimo axial feature (Figure 2). Further excavations are necessary to determine the feature's significance.

Figure 2: Possible Dorset Palaeoeskimo axial feature. (Kristensen and Curtis)

Old grid stakes and visible rectangular depressions from previous excavations were also identified. This information will be combined with data gathered from the three test units to guide future excavations on the lower terrace.

A random sampling strategy was employed in an archaeological survey of prehistoric sites west of Epaves Bay. Shovel tests were excavated on transects extending inland (south) from the shore. Test pits were dug at incremental distances from the current shoreline to ensure that a variety of landform types would be sampled. Additional shovel tests were placed in zones of high potential as determined by slope, aspect, view, proximity to freshwater, and landform type.

A number of depressions were also encountered though no cultural material was recovered from shovel tests placed in and around the depressions. One site was identified that consists of a rock feature visible on the surface. The nature of the rock feature and the depressions is unknown but may relate to historic cultivation and grazing in the cove.

One shovel test in the vicinity of the previously mentioned rock feature yielded a single flake of Ramah chert. In addition, a local resident of Ship Cove (approximately 8 km west of L'Anse aux Meadows) discovered a large biface of Ramah Chert in a backyard garden and permitted an inspection by Parks Canada staff during the 2007 field season (Figure 3). Ramah chert was recovered from excavations at L'Anse aux Meadows in association with Groswater, Dorset, and Recent Indian features (Wallace 1989). The fact that this material originates in northern Labrador suggests that the occupants of L'Anse aux Meadows were involved in widespread trade networks or were highly mobile (Gramly 1978, Hull 2002).

Figure 3: Ramah point found by landowner in Ship Cove. (Kristensen and Curtis)

Several areas of high potential were identified for continued survey in 2008 and will hopefully result in the identification of new prehistoric sites in the area of L'Anse aux Meadows.

Norse Occupations

Excavations within the Norse occupation site were led by Birgitta Wallace. Alterations of the existing Norse ruin reconstructions required the excavation of doorways in structures A, D, and F (Figure 4). All sediment was carefully excavated and screened despite the disturbed context (the remains of the Norse ruins were reconstructed after their excavation in the 1960s by the Ingstads and the 1970s by Parks Canada). The 2007 excavations did not proceed in to undisturbed contexts and no Norse or aboriginal artifacts were encountered.

Figure 4: Excavation of doorway in existing Norse ruin reconstruction. (Kristensen and Curtis)

Two small test pits were placed west of the Norse structures near the shore of Epaves Bay. The first was excavated within a series of shore features originally identified as Norse boat sheds during the 1960s excavations (Christensen 1985). Stratigraphic profiles and radiocarbon samples will be analysed to determine whether these features are cultural or were created naturally by storm waves.

The second unit along Epaves Bay (Figure 5) was excavated to collect shell samples as part of an ongoing research project led by John Chapman of Oregon State University. This unit and four other shovel test pits were examined for shell that could shed light on the source of a European introduced species of periwinkle (*Littorina littorea*) to North America.

Future Excavations

Survey work west of Epaves Bay will continue in 2008 in an effort to expand the prehistoric site inventory of L'Anse aux Meadows National Historic Site and surrounding area. A small scale excavation of a Recent Indian occupation area at L'Anse aux Meadows is also planned for 2008. It is hoped that excavations will enhance the understanding of a poorly understood phase on the Northern Peninsula. The resources exploited by Recent Indian occupants, specifically seabird colonies, will be the subject of Todd Kristensen's M.A. thesis at Memorial.

Figure 5: Collection of shell samples west of Norse site. (Kristensen and Curtis)

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APPLICATION OF POSTGLACIAL SEA-LEVEL HISTORY TO RECONSTRUCTION AND ASSESSMENT OF NEWFOUNDLAND'S COASTAL ARCHAEOLOGICAL HERITAGE

Dr. Kieran Westley, Dr. Trevor Bell, Dr. M.A.P. Renouf, and Dr. Lev Tarasov
Memorial University

Newfoundland's coastline has a long history of occupation, from Maritime Archaic hunter-gatherers to modern fishing communities. Archaeological investigation has demonstrated that coastal environments hold an immensely important record of people's long interaction with the sea, including the creation of cultural landscapes. They also indicate that our archaeological heritage is under constant threat of destruction from rising sea level and increased storminess. Our project has two main goals: i) to document the changing temporal and spatial distribution of critical coastal environments with high archaeological potential; and ii) to conduct a vulnerability assessment of coastal archaeological heritage. A pilot program will be undertaken in Notre Dame Bay.

Newfoundland's coastline is constantly evolving in response to changing relative sea level (RSL). The pattern of RSL change has been spatially and temporally complex, involving coastal submergence and emergence at different periods during the Holocene (last 10,000 years). Using output from geophysical modeling of RSL in combination with coastal and seabed topography we will pinpoint past coastal, estuarine and inter-tidal environments that have high archaeological potential. These locations occur both on the present landscape and on the shallow seabed offshore that was once dryland. Specific locations both onshore and offshore will be targeted for subsequent survey and testing.

Any survey of archaeological vulnerability in Newfoundland must be based upon a firm understanding of the long-term changes in sea level and coastal environment. In this way, areas of known archaeological value can be assessed in light of long-term coastal dynamics to identify those regions most at risk from destructive coastal changes. Through refinement of long-term trends in RSL and projected future rise in RSL, we will identify segments of the Newfoundland coast where archaeological heritage is most at risk over the next 50 to 100 years.

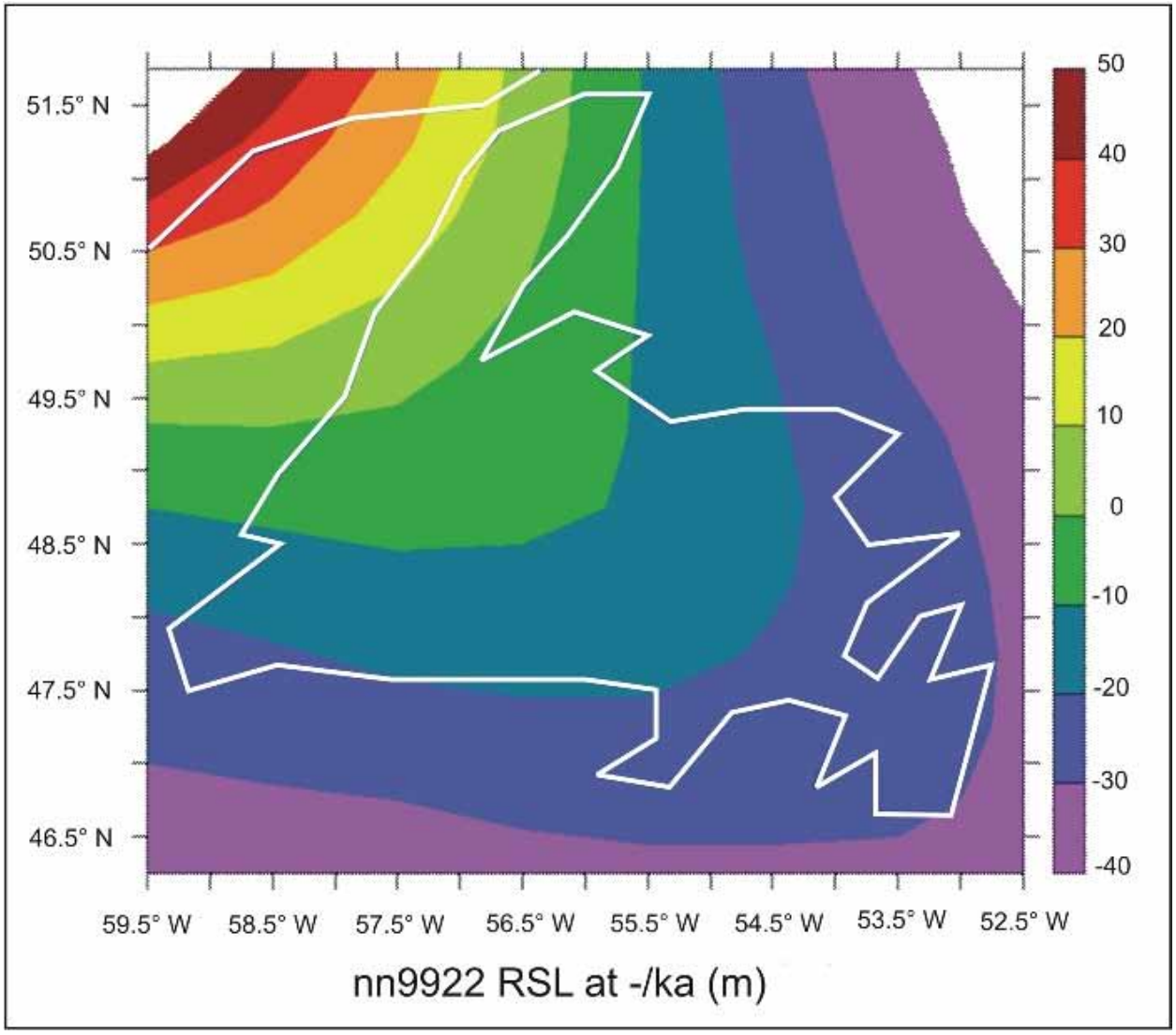

Figure 1: The plot shows the difference (metres) in relative sea-level (RSL) height between present-day and 7000 years ago around Newfoundland, from run nn9922 of the MUN/UofT Glacial Systems Model. As much as 40 m of RSL change has occurred across the island in the last 7000 years, resulting in significant shifts in coastline position and changes in coastal geography. In the northwest, former seabed has emerged from the sea to produce new dryland, whereas elsewhere the sea has submerged dryland, drowning ancient coastal landscapes and the archaeological sites preserved on them.

INTEGRATED COASTAL LANDSCAPE AND SEABED ARCHAEOLOGICAL SURVEY, BACK HARBOUR, TWILLINGATE

Dr. Trevor Bell, Memorial University
Dr. Rory Quinn, University of Ulster
Dr. M.A.P. Renouf, Memorial University
Dr. Kieran Westley, Memorial University

Ireland and Newfoundland share a similar potential for submerged archaeological resources in their inshore coastal waters, from historic shipwrecks to submerged prehistoric landscapes associated with lower sea levels during the postglacial period. Furthermore, both Ireland and Newfoundland now routinely exploit marine geophysical techniques to map the submerged cultural and natural landscapes, with a view to investigating and understanding past cultures and their exploitation of coastal resources within the context of environmental and sea-level changes (e.g. Submerged Landscapes Archaeological Network). This interdisciplinary research collaboration between Memorial University and the University of Ulster focuses on the identification and interpretation of the geophysical signatures of submerged archaeological sites, with emphasis on the research strategies, technologies, data integration and interpretation techniques used to acquire, process and analyse these data.

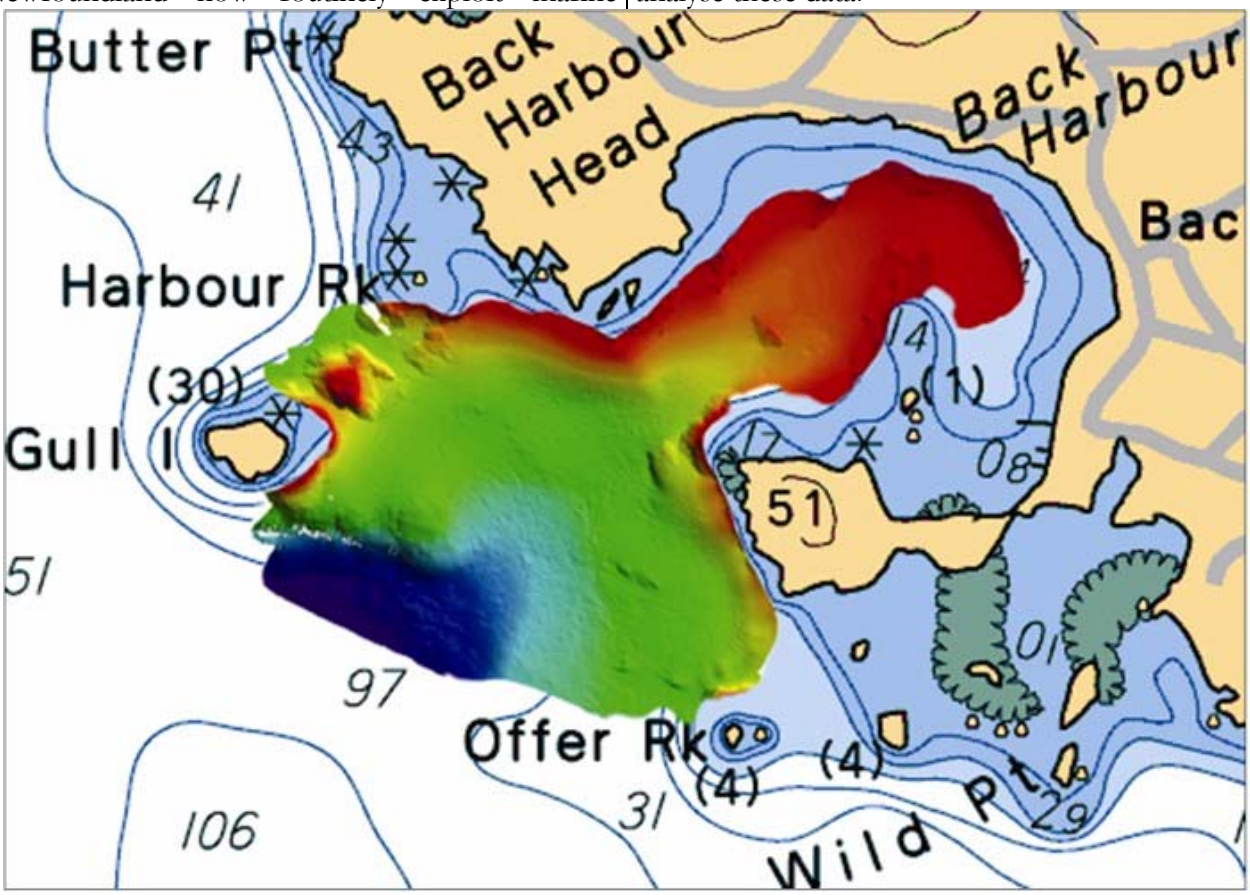

Figure 1: Colour coded bathymetry of Back Harbour and entrance way (red – shallow water, blue – deep water) overlain on top of the nautical chart for the area. The bathymetry was generated from multibeam sonar data collected by the Canadian Hydrographic Service (CCGS Matthew and launches; Chief hydrographer André Roy) in summer 2007. The data will be analysed in high resolution to detect and trace former shorelines and to assess the archaeological potential of the submerged landscapes of the inner harbour.

A specific goal of the field research in summer 2007 was to initiate the first integrated landscape/seabed archaeological survey in Newfoundland. The study location was Back Harbour, near Twillingate. The coastline in this region is submerging and therefore coastal prehistoric sites older than 5000 years are at or below sea level. Indeed many of the earliest artefacts found in Back Harbour have turned up in the inter-tidal zone.

Back Harbour was systematically surveyed by M.A.P. Renouf and Patty Wells for the month of June (see separate report) to establish the cultural and spatial parameters of known archaeological sites, to map exact site location, and to search for new sites. At the same time, in collaboration with the Canadian Hydrographic Service and Fisheries and Ocean Canada, seabed mapping of the harbour and nearshore areas was carried out under the direction of Bell and Quinn. This multibeam sonar survey produced a digital terrain model of the seabed, which is currently being analysed for submerged landscape features of archaeological

significance. Follow-up surveys and sampling of the seabed will take place in August 2008.

ARCHAEOLOGICAL ASSESSMENTS, 2007

Roy Skanes

On the Island, Roy Skanes completed Historic Resources Impact Assessments at Trinity, Trinity Bay, for an electrical services installation project, and at Southern Head and North Harbour, Placentia Bay, for a proposed oil refinery. At Trinity, no materials or sites of significance were located along the identified corridor from the Lester-Garland House to a recently constructed cooperage. At North Harbour, two sites dating to the late nineteenth or early twentieth century were located.

The trench dug for electrical services from the Lester-Garland House to a recently constructed cooperage. (Skanes)

Location of North Harbour 1 - arrow (ClAm-01). (Skanes)

North Harbour 1 (ClAm-01) is situated on a well-drained terrace measuring approximately 15 m x 10 m, and between 4 and 5 m above the beach. While not confirmed, the vegetation and topography suggest that the terrace had been farmed, and the quantity and range of artifacts unearthed could indicate it had been occupied over an extended period of time. Due to the overview nature of the Assessment, only limited testing was completed. Thus a thorough interpretation of the site is not possible at this point. Nevertheless, it is not unreasonable to assume that due to the site's proximity to the river, it's sheltered location, and the presence of a pebble beach on which small craft could easily land, there is a high probability that other, older remains are present. No direct interactions with the site as a result of construction of the oil refinery are expected.

North Harbour 2 (ClAm-02) is situated approximately 800 m to the south of North Harbour River on an open, sandy point referred to as Frenchman's Nook. Informant information suggests that in the early part of the 20th century (and possibly earlier) a large sawmill owned by a French-speaking family was in operation on the sandy flat. At present, the ends of numerous wooden posts used as supports for buildings are visible protruding above the sand. Shovel testing at the southwest end of the sandy area adjacent to the remains of a wharf resulted in the discovery of several fragments of domestic ceramics of late nineteenth or early twentieth century origin. Surface indications suggest a building had been present at this location. Because the access road to the refinery will be situated at least 350 m to the east of ClAm-02, no interaction with the site is anticipated.

Roy Skanes of Minaskuat Limited Partnership in Happy Valley-Goose Bay (HVGB) also completed two Stage 1 Historic Resources Impact Assessment in Labrador: one for the Iron Ore Company of Canada in Labrador City who is undertaking an expansion program to increase the annual production of iron ore concentrate; and another for the provincial Department of Transportation and Works who are overseeing the construction of various sections of the Trans Labrador Highway from Cartwright Junction to HVGB. During these assessments, no sites or materials of historic resources significance were identified and no further field investigation was recommended.

ARCHAEOLOGY IN PLACENTIA: THE 2007 SEASON

Submitted by Steve Mills and David Fry

Introduction

The year 2007 was an exciting one for archaeological investigations in Placentia. Starting the first of May with a College of the North Atlantic archaeological field school and continuing into the regular field program until the middle of October, this 24-week season uncovered some of the most exciting finds yet made in the town. Once again, the focus was on the Jerseyside section of town where French and British soldiers and engineers built significant fortifications between 1691 and the 1740s. Two water and sewer projects in the town were also closely monitored. A number of military features were exposed, including massive masonry defensive and domestic foundations. One of these features, the northeast bastion of the New Fort, turned out to be a burial ground. We also uncovered several rich cultural deposits containing domestic refuse dating back to the seventeenth century and possibly earlier. The 2007 archaeological investigations were supported by the Town of Placentia, Services Canada, the College of the North Atlantic (CNA), and the Province of Newfoundland and Labrador.

Historical Background

Placentia, or Plaisance as the French knew it, is among the earliest harbours in Newfoundland exploited by European migratory fishing crews. By the early seventeenth century it had become one of the major ports for crews from the Basque regions of France and Spain. Realizing the importance that England was placing on the Newfoundland fishery, with its permanent colonies and settlements along the Avalon Peninsula and northwards into Conception Bay, French authorities in Versailles chose to officially colonize Placentia in 1662. Although plagued by the same growing pains of most New World settlements, with shortages of food, defence, skilled labour and honest leadership, the French planters managed to construct several fortifications to protect their properties. The largest of these fortifications was Fort Louis, an irregular four-sided palisaded work on the low sandy beach on the Petite Grave (little beach) in what became know in the English era as Jerseyside (Figure 1).

Plaisance survived as a French colony until 1713 when it was turned over to England as a part of the terms of the Treaty of Utrecht at the end of the War of the Spanish Succession. When the British took over in 1714, its name changed to Placentia. Between 1714 and the 1740s, the British refurbished the French defences and built new fortifications in the town. Soldiers immediately occupied what was left of Fort Louis, the

French having done their best to pull down as much of the defences as possible before abandoning the town. In the early 1720s, Fort Frederick was completed on the south side of the Gut and the garrison moved into its new quarters across the Gut. In the 1740s they returned to the Petite Grave and began construction of another fort, called the New Fort (Figure 2). This fort was never completed.

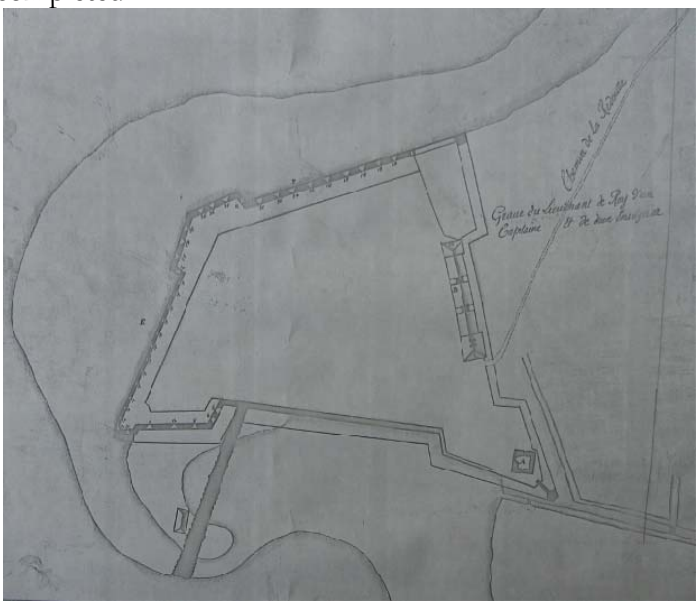

Figure 1: Fort Louis in 1706. North is to the right. (Mills & Fry)

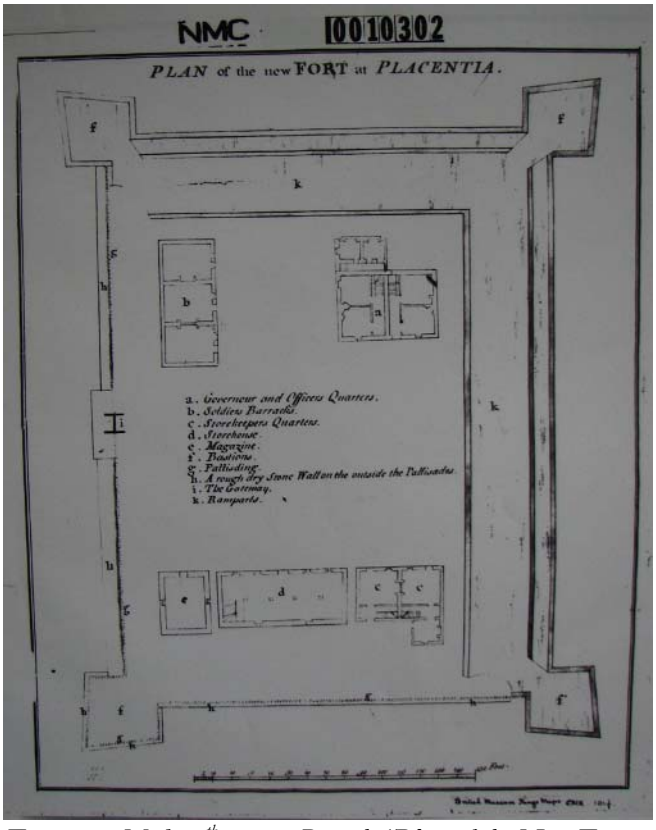

Figure 2: Mid-18th century British "Plan of the New Fort at Placentia" The northeast bastion is at bottom left and the dry rough wall connects the two bastions on the bottom. (Mills & Fry)

The CNA Archaeological Field Course

In the summer of 2006, representatives from the Town of Placentia, Services Canada and the College of the North Atlantic met to discuss the feasibility of a proposal to develop a heritage-related course at the local campus of the college. The thinking behind this proposal was to provide students with formal training in archaeological field and lab techniques, an understanding of cultural landscapes and associated topics to make them more employable in the heritage-related workforce. The Town of Placentia had supported archaeological research since 2001 and was keen to enhance the opportunities to develop their archaeological heritage. All parties worked together over the winter of 2006-07 and Steve Mills was hired to develop and teach the course. The class of nine students (Figure 3) were lectured on archaeological theory and field techniques, cultural landscapes, heritage architecture, artifact identification, dating techniques and several other related topics including tourism awareness and public speaking. Most of the course was spent in the field or in the field lab. The goal of the course was to train the students in archaeological field techniques and help them become "ambassadors" of their town and region. At the end of the program, the College hosted a graduation barbeque and all of the students were hired by the Town to become the field crew for the summer.

Figure 3: The graduating class from the Archaeological Field Assistant course at the College of the North Atlantic. Front row: Steve Mills (instructor), Janet Racine, Kelly Cheeseman, Ag King, Sharon Williams. Back Row: Scott Manning, Ron Bishop, John Goldsworthy, Clint Smith and Berkley Mulrooney. (Mills & Fry)

The Field Work

The 2007 season was spent excavating at the site of Fort Louis and the New Fort. Work at this site began in earnest in 2002 and with the exception of 2005,

continued into this season. Throughout the summer, test transects were placed throughout the site, extending northwards towards Castle Hill to the documented locations of the eighteenth-century French Officer's gardens. The objectives of this testing was to search for evidence of palisades and other features, that would determine the north perimeters of both Fort Louis and the New Fort. By testing inside the fort we had hoped to locate structures and defensive features located on maps of the two forts. Whenever masonry features were encountered the areas were opened up for further investigation. On the south end of the site we uncovered cultural deposits near the water table (1m below surface). To get a better look at these deposits, the trench was widened to 2m and the digging went down an equal depth. Each of the significant features and cultural deposits encountered in 2007 will be briefly described.

British Governor's House

The discovery of a section of the footings for the British Governor's House at the southwest corner of the site is the fifth structure thus far uncovered belonging to the New Fort. Only the Officers' Quarters (which is attached to the Governor's House), Soldiers' Barracks and Guard House remain to be discovered, and we're pretty sure we know where they should be located. The British Governor's House foundation is located inside the private property of Bernard and Madeline Penney's back yard. Mr. and Mrs. Penney kindly allowed the crew to expose a portion of the north wall foundation. It appears that this foundation may rest upon an earlier footing as there are two very different-looking styles of masonry construction evident. Further testing will be necessary to confirm this. Artifacts associated with this foundation include a nice collection of late eighteenth-century ceramics and a well-preserved brass spigot.

Fort Louis Palisade

The British Governor's House was apparently built directly over top of one of the Fort Louis palisade lines. Two parallel rows of posts, up to 8m in linear length, were discovered at a depth of nearly 1.4m below the surface. The first row of posts was discovered inside the foundation and further digging revealed a second, parallel row on the north of the foundation. We found nothing to suggest that these posts were associated with the foundation, and in fact, it appears that these posts go beneath it. Some of these 20cm (8 inch) wide posts were perfectly preserved in the aerobic peat deposits that surrounded them while other posts were little more than stains in the ground. Nevertheless, expert excavation by Ronny Bishop and Philip Viscount, often in less than ideal water-soaked conditions, allowed for their accurate mapping and photography. Historic records indicate that the palisades were so rotted that the French soldiers could easily pull them down in 1714. Artifacts found within the peat deposits surrounding the posts date this feature to the late-seventeenth century. Although shore erosion and modern development makes it difficult to precisely place the southwest corner of Fort Louis into the modern landscape, the discovery of these posts seems to indicate that it was near this part of the site. An overlapping arrangement of well-preserved sticks found just above these posts, but beneath the New Fort deposits, looks like the remains of a wattle-type fence feature. A similar and possibly related arrangement of sticks was found on the north side of the stone foundation. At this point it is not possible to determine whether this fence feature was associated with the palisade or if it was erected after the Fort Louis earthworks and palisades were abandoned.

The New Fort North East Bastion and Burial Ground

Test pits on the north east side of the site exposed the masonry foundation of the north east bastion (Figure 4). This feature is clearly labelled on plans of the New Fort (Figure 2). The fort had diamond-shaped bastions in each of the four corners. The one exposed this summer had 2m-wide mortared footings with evidence of palisades built on the interior face; a discovery that contradicted the engineer's plan that show the palisades on the interior of the bastion and rough dry wall. Another divergence from engineer's plan was that the bastion foundation was actually closed at the point facing into the fort parade instead of being opened as depicted on the plans.

Figure 4: The foundation of the New Fort north east bastion. (Mills & Fry)

The interior of the bastion had been filled with sands and rubble. In places, the bastion was built upon rubble (apparently fill) while in the northwest corner, it apparently rested on the ancient sandy beach. Because of the water table, the foundation footing was not reached. French ceramics and Dutch pipe fragments dating to the late-seventeenth century or early eighteenth century were found in the undisturbed beach sands beneath the British period fill deposits. As was expected, the fill deposits inside the bastion contained a mixture of seventeenth-, eighteenth- and nineteenth-century artifacts, including several fragments of Basque roof tiles. Very few nails were discovered in the bastion fill, suggesting that neither a wooden floor nor gun platforms were ever installed in this bastion. The "dry rough wall" shown on the engineer's plans (see below) was found to butt against the west and south sides of the bastion foundation and palisade posts were discovered at both junctions.

The foundations along the east and west sides of the bastion were nicely intact, but the south and north footings were heavily impacted by an intrusive feature. This intrusion turned out to be for a 10-inch cast iron water line (Figure 4). The water service was laid in 1958 and was still active in 2007. The discovery of this water pipe raised a serious concern as archaeological investigation on the site in 1972 discovered a human burial in association with a water line somewhere on the east side of the site. Photographs of this skeleton, truncated at the waist by a cast iron water line, were indecisive as to precisely where the burial was discovered onsite. Added to this confusion were the modern landscape alterations since 1972. Knowing that we would be excavating in the area near where the water line was suspected to be, steps were taken early in the field season to locate the service. Mr. Ken O'Keefe, foreman on the job in 1958, visited the site to try and identify the water line location and Town of Placentia maintenance crew was brought in with an electronic locator designed to trace underground utilities. As it turned out, it was not possible to locate this water line until it was found inside the north east bastion.

A week after the water line was discovered, Berkley Mulrooney found the first of four human burials inside the New Fort northeast bastion. This burial had been so heavily impacted by the water line that only the clavicles, thoracic vertebrae and head remained in situ. Scattered fragments of long bone were found in the water line trench backfill adjacent to this internment. The surviving bones were mapped and photographed in situ and removed to the lab for safe keeping and preliminary analysis. During the removal process it became clear that it would be impossible to keep the bones intact. It appeared that they were basically held together by the soil matrix. Immediately upon discovering the burial, provincial and municipal authorities, as well as the local detachment of the Royal Canadian Mounted Police, were notified of the discovery.

Over the next couple of weeks, remnants of three more burials were discovered along the west edge of the water line trench. Two of these had also been heavily disturbed by the water line intrusion and the third one was so impacted that it was represented by just a few fragments of cranial and long bones in the water pipe back fill. Maureen Neville discovered articulated foot bones just on the edge of the baulk inside the bastion. These turned out to belong to the only undisturbed grave (Burial 5) found this summer. As only Murphy's Law would have it, this burial lay directly beneath the only baulk inside the bastion with the head and feet extending from west and east sides respectively. Considering the extremely deteriorated condition of the other three sets of human remains, this internment location was recorded and left in the ground. All of the rest of the human bones found inside the bastion were mapped and photographed before being retrieved. They were briefly analysed at the lab and reburied within the bastion as the project neared its completion. Judging by the dentition, all of the human remains were adults, but because of their poor condition little else could be determined. The only artifact to be recovered in direct association with any of the human remains was a decorated mid nineteenth-century clay tobacco pipe (Figure 5), again found by Berkley, resting upon the chest of Burial # 4, right about where a shirt pocket would have been. It is clearly obvious that this chap was buried with his pipe!

Figure 5: Mid-nineteenth-century clay tobacco pipe from Burial # 4. (Mills & Fry)

Local residents always knew that an "old French Graveyard" existed somewhere in this vicinity and archaeological investigations on the site in 1972 uncovered a burial (Burial #1). That burial had been truncated by a water line as well. Interviews with elderly informants conducted at the time of the 1972 discovery suggest that the bodies were buried there in the mid-nineteenth century. One of these informants recalled that his grandmother had witnessed "dead soldiers" were taken from a ship and buried in the fort. Interviews conducted during the current investigations with additional local and former residents of Placentia determined that head stones were still visible on the site as recently as the 1950s, but these were removed when a softball field was built in the early 1960s. Fortunately Mr. Ken O'Keefe had two photographs of the area, taken around the turn of the twentieth century that show what appears to be upright stone grave markers inside what is clearly the foundations of the north east bastion of the New Fort (Figure 6). These photographs also clearly show the edges of the rubble fill upon which the New Fort was constructed in the 1740s.

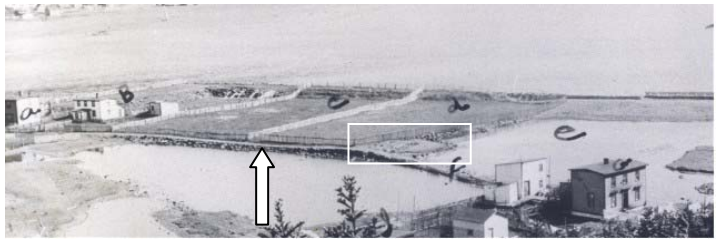

Figure 6: The New Fort location circa 1900. The northeast bastion in outlined by the box and the rubble fill is indicated by the arrow. (Mills & Fry)

Dry Rough Stone Wall

During the testing in the first week of the season the top of a massive masonry wall was uncovered in the northwest side of the site. This turned out to be the "dry rough stone wall" depicted along the north side of the New Fort on the mid eighteenth century plan (Figure 3). This massive 13 foot (3.9m) wide dry laid wall was not more than 60cm high and rested upon a single layer of beach cobbles (Figure 7). Over 20m of the wall was uncovered at the west side of the site and an additional 3m being exposed where it buts against the west face of the northeast bastion. A short section of a similar wall was found butting against the south face of the same bastion. Remnants of five posts that would have once supported the palisade were found adjacent to the exterior face of the dry rough wall. Three of these were found along the west side of the site and two were uncovered at the two intersections this wall made with the northeast bastion. As happens occasionally with historic engineering plans, what was found in the ground did not precisely match the plan. The engineer's plan (Figure 3) shows the palisade line on the interior face of the dry rough wall, but the archaeologists found the posts on the exterior face, which would be a more logical place to put the palisade.

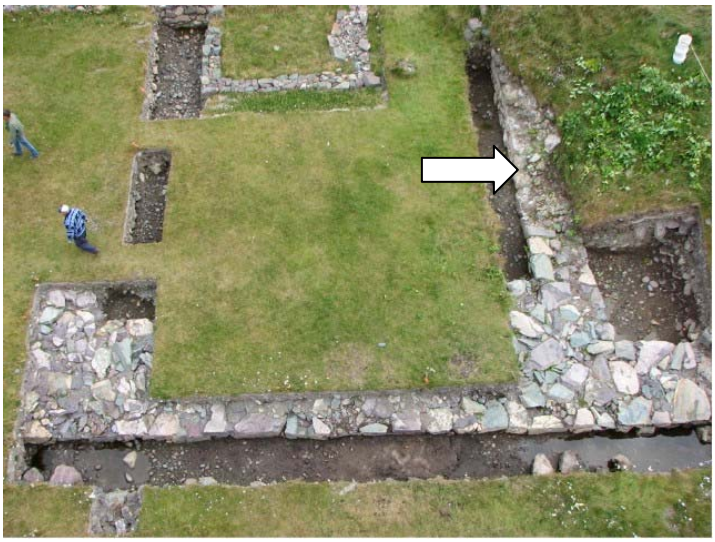

Figure 7: The partially exposed dry rough wall of the New Fort. The stone face of the rampart is indicated by the arrow. (Mills & Fry)

Cultural Deposits

As if the architectural features were not enough to make this an exciting summer, the first test trench placed in the interior of the fort uncovered several incredibly rich deposits of organic peat and sand containing thousands of artifacts from the French period and perhaps even the brief occupation of Fort Louis by British soldiers between 1714 and the early1720s. These deposits were capped by the New Fort rubble fill layer; therefore they must date before the early 1740s, the time when construction began on the New Fort. As these deposits consisted of waterlogged peat mixed with sand and beach cobbles, the organic preservation was remarkable. As the water soaking the peat and sand was from the nearby ocean, iron artifacts were practically non-existent. The few metal artifacts to survive in such a burial environment were made from silver or gold plated ferrous. Leather and wood artifacts were plentiful, including a collection of over 170 leather objects, many of them shoe parts including an impressive and varied array of soles. Hundreds of food bones from cows, pigs and fish were also present. Wooden pieces included fragments of staved containers and a most unusual find…the distal end of a stringed instrument. This rather delicate 9.3cm-long artifact has three small holes bored through it with one of them still holding a tuning peg (Figure 8). High status artifacts were also found including gold plated buttons, a silver boot buckle and a silver plated cutlery piece with an amorphous finial.

Figure 8: Stringed instrument fragment. (Mills & Fry)

Sherds from over 200 ceramic vessels were recovered as were pieces from numerous case and onion-style wine bottles. Along with the alcohol bottles we also found several delicate wine glass stems dating from the mid-seventeenth century to the early eighteenth century. Another unusual find was a sizeable fragment of the crest from a Beauvais medallion jug, a particular vessel that ceased to be produced after about 1570. Most of the ceramics were French or Iberian in origin, indicating that these, and many of the artifacts found in association with them were from the French period. Even more surprising was the discovery of several dozen fragments of Basque roof tiles. These sherds, some larger than a man's hand, are reminiscent of the thousands of roof tiles found at the Red Bay Labrador whaling site. Basque fishermen were among the first to catch cod off Placentia in the sixteenth century and there are many references, some not so complimentary, to Basque migratory crews vying with the French colonists for land in the seventeenth century. Although the Basques are well represented in the historic record, these tile fragments are the only indisputable physical evidence of the thousands of Basque fishers who lived and fished in Placentia. There were not enough roof tiles present to suggest that they were used as a building material, however, they are thought to represent ownership of the properties of Basque fishers or families. Incidentally, several slate roof tiles were also found, but again not in enough numbers to identify the locations of any buildings.

English ceramics from North Devon and possibly New England were also found in the seventeenth-century deposits. Trading ships from the English Shore of Newfoundland and Boston occasionally came to Placentia, despite the political differences between England and France. The local population would protest any attempts to ban these ships arguing that they were sometimes the only supply of valuable foodstuffs to reach the beleaguered colony. English ceramics were most prevalent in the deposits

dating after 1714 when the British soldiers are known to have lived in Fort Louis.

Finally, the site produced a small but impressive collection of marked clay tobacco pipes from Holland. Some of these specimens, including several complete pipe bowls were marked with unusual symbols such as swans and human figures. They apparently date to the last half of the seventeenth century. A most peculiar tobacco pipe was discovered by Scott Manning near the Fort Louis palisade posts. This nearly complete pipe (Figure 10), was made in West Africa and is one of just three found in seventeenth-century contexts in the Province and probably the country. All three are very similar in shape and decoration and came from deposits positively dated to the 1690s, one from the 1696 French destruction layer at Ferryland and the other off the British warship Saphire, sunk in Bay Bulls during the 1696 French attack on that harbour. They are the only ones of their type, date and provenance in Newfoundland and all three were found in association with either the occupation of Fort Louis (1690-1714) or the 1696 raids on the English Shore. There is probably a close connection between these three pipes that awaits discovery!

Figure 10: West African clay tobacco pipe. (Mills & Fry)

The Swans Road Sewer Project

In addition to investigating the Jerseyside forts, the authors also monitored two sewer/water line projects in downtown Placentia. As the excavations followed existing water and sewer lines, most of the digging was in disturbed corridors, however occasionally the trench cut a bit wider, exposing intact cultural deposits. This was most evident nearest the shoreline and in particular along a 100m stretch of Swans Road, near the historic O'Reilly House Museum, where historic features and artifacts were recovered. Some of these artifacts date to the French period (pre-1714) and early English period of Placentia's history. When one of the sewer trenches went close to the site of the British Fort Frederick on Orcan Drive it exposed, but did not damage, a section of a stone wall. Further research will hopefully determine whether this wall is related to the fort.

Conclusion

In conclusion, the 2007 archaeological season at Placentia produced a wealth of information from the late seventeenth-century and early eighteenth-century military forts. It also appears that we discovered evidence of the pre-military use of the Petite Grave. The domestic nature of many of the artifacts and the discovery of children's shoes from the deepest strata inside the fort(s) were probably deposited by families who occupied the Petite Grave prior to construction of Fort Louis in 1690. Research is in the early stages for this site and hopefully the future will bring many more discoveries.

ST. PAUL'S SITE RE-VISIT
PORT AU CHOIX ARCHAEOLOGY PROJECT

Dominique Lavers and M.A.P Renouf
Memorial University

In July of 2007, a member of the Port au Choix Archaeology Project conducted a surface survey and collection of a Recent Indian site, St. Paul's Bay-2 (DlBk-06) located in St. Paul's Inlet (Figure 1) on the west coast of the Northern Peninsula, Newfoundland. The aim of this survey was to assess the site for future archaeological potential and to surface collect any artifacts that may have been disturbed by recent development in the area (Figure 2). The findings of this survey led to the discovery of a large hearth feature, dated to 1390+/-70 BP (Beta 21132), a large quantity of cores and flakes and a few tools (Figure 3).

The history of archaeological research at this site has focused on testing the area for archaeological potential. In 1989 Gerry Penney discovered this site when testing the area for Newfoundland and Labrador Hydro (Penney 1989). Penney and his crew unearthed flakes, core material and charcoal.

Figure 1: Location of DlBk-06 in St. Paul's.

Figure 2: PAO assessing damage to site. (S. Hull)


Figure 3: Surface collected Recent Indian artifact. (Lavers)

The occupants of the site focused their economic activities on the procurement and production of stone tools, which can be inferred from the large amount of lithic debitage, including cores and flakes, that has been surface collected (approximately 20 pounds) as well as the site's proximity to an identified lithic source of Cow Head chert which runs along the southeast side of the site along the beach.

In July and August of 2008, Memorial University's Master's student Dominique Lavers, under the supervision of Dr. M.A.P Renouf, plans on returning to this site for further excavation. The overall purpose of this research will be to examine the lithic resource-use and waste material produced from the manufacture and reduction of stone tools. This will be achieved through the excavation and description of St. Paul's Bay-2 to which a comparison will be made to lithics from L'Anse aux Meadows, Gould and Spence sites (Port au Choix) and Cow Head. This research seeks to explain the land use and occupancy characteristics of the Recent Indian on the Northern Peninsula through the identification of a reduction sequence of lithics from St. Paul's as well as through the identification and sourcing of raw material to connect them to a source.

Penney, G.
1989 Annual Report of Archaeological Activities. Gerald Penney Associates Ltd. St. John's.

EXCAVATIONS AT THE HARE HARBOR BASQUE SITE (EdBt-3), PETIT MÉCATINA, QUEBEC, 2007

William Fitzhugh[1] and Erik Phaneuf[2]

Abstract

Excavations in August 2007 at a blacksmith shop on land and at four underwater midden units produced ceramic vessels, wood artifacts, glass, roof tiles, ballast rock and many other materials, including masses of wood and fish and whale faunal remains. Analysis of the fish remains reveal a cod fishery processed for the commercial market, and whale flippers discarded in the butchery process. Underwater stratigraphy indicates a sequence of activities beginning with construction of shore facilities producing woodworking debris followed by first whaling and then a cod fishery. Preliminary analysis of ballast rock suggests the site was used by up to 8 vessels over a period of a decade or more. Work at the blacksmith shop produced important new finds and evidence of multiple occupations, some with burn levels that may indicate political interference.

In 2006 the Smithsonian's St. Lawrence Gateways Project established a grid over a 50x70m square meter area of the underwater site at depths ranging from 10-60 feet; excavated a series of one meter square test pits along a transect from the shore to the lower limit of the site at ca 60 feet depth; acquired faunal and artifact samples; and created a map of the entire site area. At the land site, we excavated north of the blacksmith shop and discovered the paved floor of the shop interior. These results (Fitzhugh 2007; Fitzhugh, Phaneuf, and Leece 2007) included preliminary analysis of the underwater stratigraphy with distinct levels of wood debitage, whale, and faunal remains. The latter consisted of a thick lens of concentrated fish bones, mostly codfish, but also bird and seal remains. Significant artifact recoveries included part of a wood platter, shoe fragments, ceramic and tile fragments, and parts of barrel hoops and wedges. The primary objective of the 2007 field season was to expand tests of the underwater deposits and continue work on the blacksmith structure on land. We also planned to test a few other sites along the LNS between Harrington and Blanc Sablon.

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Background

In 2001, while conducting our first survey of Quebec's Lower North Shore, we discovered two sites with large concentrations of Basque roof tiles. We initially assumed these were 16th C. Basque occupations, but the finds included some North European stoneware, clay pipes, and beads dating 17-18th C and not present at Basque sites in the Strait of Belle Isle. Site locations were also anomalous; the LNS sites were in obscure locations along a navigationally-challenged coast full of islands and shoals, not out in prominent exposed settings like 16th century sites.

Hare Harbor (EdBt-3; Figure 1) is located in a small harbor at the southern tip of the Petit Mécatina peninsula ten kilometers east of the fishing village of Harrington Harbor (for regional and site maps and site overviews, see Fitzhugh 2007). A 150-meter high cliff shelters the site from northern gales, and its deep overhang offers protection from the elements. The harbor provides ready access to the outer coast environment and its productive fin and harp seal fishery and is frequented by seasonally whales. The site has an undisturbed single-component occupation of about 10,000 square meters extent. Two structures have been partially excavated on land: a cookhouse and a smithy. The cove adjacent to the site has a 4000 square meter stratified underwater midden covering the full period of the Basque occupation. To date, no shipwrecks, boat remains, or blubber ovens have been found (Fitzhugh 2005, 2006).

Figure 1: Hare Harbor Mecatina site (EdBt-3) overview from the east. (Fitzhugh & Phaneuf)

The Cookhouse

A 12x14m rectangular structure with a stone slab pavement and a large pit hearth at its southern end appears to have been used for domestic chores and cooking. Thick deposits of broken roof tile along its longer sides attest to the effects of annual frost damage and frequent re-tiling episodes. Architecture is similar to Basque structures shown in 16-17th C. map illustrations

and the structures interpreted at sites excavated by James Tuck at Red Bay. A peculiar feature was the presence of charred blubber stains found on the floor of the Hare Harbor cookhouse which are similar to those found on the floors of Labrador Dorset and Inuit sites. Discovery of broken pieces of a Labrador Inuit cooking pots and a lamp near these stains at Hare Harbor suggest that Inuit may have been employed as cooks and assistants, even though the location is far beyond the contemporary Labrador Inuit settlement range in the Strait of Belle Isle.

Material culture from the cookhouse include fragments of Iberian and Bergundian earthenwares, Normandy stoneware, a variety of glass bottles and fine glassware, large numbers of iron spikes and nails, charcoal, cork, flint, clay pipes, glass beads, and other materials. Anja Herzog at Laval University is conducting detailed studies of these materials. Neutron activation of the glass beads by Herzog and Moreau (2004) indicated a provisional dating envelope of 1680-1730, beginning one hundred years later than the termination of large-scale Basque operations in the Strait of Belle Isle.

The Midden

North of the cookhouse is an outdoor work area where we recovered tiles, ceramics, glass beads, iron spikes, and an iron oil lamp similar to one found from Red Bay [show lamp]. A bog east a few meters east of the midden produced tiles, nails, a few ceramics, and well-preserved wood including barrel parts, a wooden garment or bag pin, axe-cut brush, and an iron sledge hammer. The bog exhibits 8-10 stratified layers of compressed charcoal-stained peat alternating with clean peat, suggesting several discrete occupation episodes (Figure 2).

Figure 2: Compressed peat levels in a test pit excavated in the bog between the cookhouse and smithy by Yves Chrétien shows evidence of 8-10 occupation levels. (Fitzhugh & Phaneuf)

The Smithy

A stone pavement similar to that of the cookhouse marks the location of a blacksmith shop. Excavations here in 2006 produced above-floor deposits of lump charcoal and charcoal-stained soil, pieces of iron bar stock, a broken anchor fragment, clay pipe fragments, and iron spikes. This location has few tiles, ceramics, beads, glassware, or other household materials.

The Underwater Site

In 2004 we located Basque tiles, ceramic vessel fragments, large linear piles of rocks, and whalebones on the bottom of the cove adjacent to the land site. Underwater surveys, mapping, and test excavations in 2006 revealed Basque material spread over an area of about 4000 square meters from the shore to a depth of 30 meters. In addition to tiles we mapped twelve piles of ballast rocks, mostly of limestone that has been provisionally identified as coming from the French or Spanish Basque region. Test pits along a transect through the middle of the site from shore to 30m depth revealed 20-100cm deep midden deposits with discrete stratigraphic units containing wood debris and fish and faunal remains, with tiles, ceramics, and other materials found spread throughout the sequence (see illustrations in Fitzhugh 2007).

2007 Research

Research under Quebec permit 06-FITZ-01 was conducted at Hare Harbor for over a three-week period in August by Americans and Canadian personnel (Figure 3). The Canadian team consisted of underwater archaeologists from the University of Montreal, which is partnering with the Smithsonian in the underwater portion of the project by supplying personnel, equipment, and other assistance (Figure 4).

Figure 3: The 2007 dive team at Hare Harbor (l-r): Perry Colbourne, Christy Leece, Frederic Simard, Vincent Delmas, Marilyn Girard-Rheault, Eric Phaneuf, and Bill Fitzhugh. (Will Richard).

Figure 4: Marilyn, Eric, Josh, and Perry marveling at the dredge apparatus Eric and Frederic had just assembled (with no parts missing!) on the Harrington dock. (Fitzhugh & Phaneuf)

Smithy Excavations

Unlike the wet conditions of the previous year, this season's work on land was facilitated by a drier climate that made excavations at the smithy more manageable. We were able to expand the excavations by two meters beyond the stone pavement on the west, north, east, and south sides of the structure. The eastern squares took us off the stone-paved floor onto a pavement of small spruce poles that had been laid down on top of the wet peat to expand the structure's work area. Here we found a flint-lock mechanism and French and English gunflints (Figure 5), lead musket balls, barrel staves and bottoms, a feature including a large number of nails and slag materials (Figure 6), and parts of a wood spoon or ladle. The northern tier of squares abutted the rising hillside leading to the rock-shelter above the structure, and here we recovered thick deposits of charcoal, a few iron artifacts, and remains of a mustard-colored glazed platter or plate. Rock clusters in situ above these squares (Figure 7) suggest the possibility of furnace features on the lower slopes of the hills. West of the floor there was a pathway one meter wide paved with broken roof tiles leading across the marshy ground from the smithy to the midden/work area (Figure 8).

Figure 5: Gun part and French spall found at the smithy excavation in Hare Harbor. (Fitzhugh & Phaneuf)

Figure 6: Feature of iron nails and encrusted slag-like material from the midden south of the smithy (Will Richard).

Figure 7: The northwest corner of the smithy and unexcavated hillside to the north, where rocks and charcoal suggest charcoal furnaces may exist. (Fitzhugh & Phaneuf)

Figure 8: The southwest corner of the smithy, looking northeast, showing tile-paved walk-way. (Fitzhugh & Phaneuf)

Figure 9: The northeast corner of the smithy where a lower wood floor and beams were found below the upper rock pavement. (Fitzhugh & Phaneuf)

While draining water from the smithy floor we discovered a charred plank wood floor beneath the paving slabs (Figure 9). Probing deeper, we found this floor to be supported by a series of unburned planks and beams (Figure 10). Between the stone pavement and the wood floor we found more objects, including a lead sounding weight with the remains of a small iron tube molded into its side whose bottom was level with the base of the weight (Figure 11). The tube appears to have been a coring device used in addition to the wax applied to the hollowed base of the weight, to obtain a small sample of sediments from the bottom, giving mariners an addition means of determining bottom type for navigation and anchoring purposes. The charred floor timbers extend to the margins of the stone floor, where we had previously observed charred timbers. It would thus appear that an earlier wood-floored structure on this location had burned to the ground before the laying of the final stone floor pavement. A similar type of rough stone pavement is present in the cookhouse. To date we have not explored beneath the cookhouse pavement to see if this structure also has an early wood floor and evidence of burning. If so this may indicate that the site was systematically torched rather than suffering an accidental conflagration, as might easily happen at a smithy.

Figure 10: Exposed unburned planking in water-saturated peat below the stone floor. (Fitzhugh & Phaneuf)

Figure 11: A lead sounding weight with corroded remains of an iron coring tube molded into its base (Will Richard).

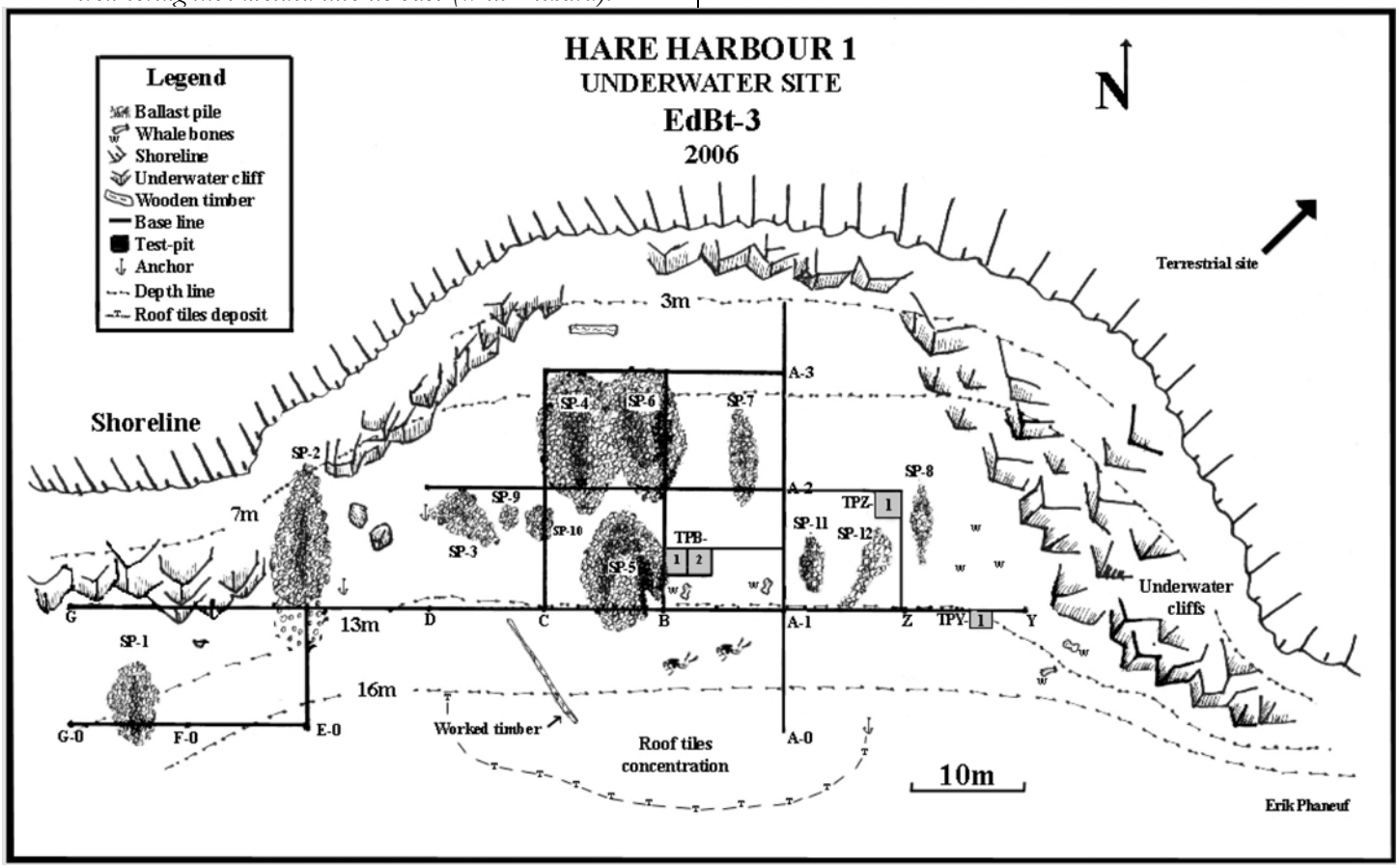

Figure 12: Map of the underwater excavation area with several newly-discovered ballast piles and the 2007 excavation units. (Phaneuf)

Underwater excavations

Last year's research with a make-shift dredge revealed extensive midden deposits in the central portion of the cove site between 30-60 feet of water (Figure 12). This year, with two excellent dredges and pumps supplied by the University of Montreal, we opened up four 2x2m squares on either side of our north-south baseline. The eastern units (TPZ-1 and TPY-1) were in the area where we had observed whale bones on the surface of the sediments; the western units (TPB-1 and 2) were in the center of the tile distribution east of Ballast Pile 5. The TPB-1 and 2 excavations produced several nearly complete ceramic vessels (Figures 13, 14), some with makers or shop-marks (Figure 15) which should enable identification of their place of manufacture, which on general inspection appears to be southwestern France (Brad Loewen, pers. comm. September 2007). Rope (Figure 16), pieces of glass, and large amounts of faunal remains were recovered in the two units. Nearby on the surface of the sediment we

recovered a small porringer bowl of similar design (Figure 17), though different interior decoration, to one found in the Red Bay excavations.

Figure 13: A glazed earthenware vessel recovered from the TPB-1/2 area. (Will Richard)

Figure 14: Another glazed earthenware vessel showing a decorative vertical motif, from TPB-1/2. (Will Richard)

Figure 15: Spruce-like maker or factory mark on a vessel rim. (Will Richard)

Figure 16: A wide variety of rope sizes was recovered from the TPB-1/2 area. (Fitzhugh & Phaneuf)

Figure 17: A small porringer with a light blue glaze over the interior and dark blue-green design motifs, found by Frederic Simard partially buried at the surface. The underneath side has a clear glaze over the earthenware body. A vessel of this exact shape but with a more complicated design was recovered from Red Bay. (: Will Richard)

Two units excavated along the base of the shore cliff at the east edge of the cove produced midden and whale remains, several bones of which were partly exposed at the surface. One of these units (TPZ-1; Figure 18), at a depth of ca.10 meters, contained the articulated remains of a whole whale flipper, along with other whale bones. Above the bone level there were many broken tile fragments. In TPY-1 at 13m, whale bones, loose peat, wood chips and wood fragments, were found in an initial cultural layer with whale bones. This initial occupation level was followed by a compact silty layer with roof tiles, and above this was a compacted layer containing almost nothing but fish bone (Figure 19). It appears that this region of the cove was used for butchering whales that had been towed up to the edge of the cliff where it was deep enough for the whale and a vessel to tied on outboard of the carcass in order to butcher it. Flipper bones and loose phalanges were found here, suggesting that these parts were removed and dropped to the bottom more of less intact. The absence of tail, large vertebrae, ribs or head parts suggests that the bulkier parts of the whale were towed off for disposal elsewhere after butchering was completed.

These excavations reveal a consistent picture of the underwater stratigraphy. The lowest levels of the deposit contain peat mixed with tiles. This level is overlain respectively by layers of axe-cut wood chips, followed be a layer containing whalebones; then codfish bones with some other fish, seal bones, and bird bones; and finally upper levels of sandy silt, ballast rock, and tile. Tiles, ceramic vessels, and other materials are also found more of less throughout the entire sequence.

Faunal Analysis

A small sample of the 2006 fish remains analyzed by Sophia Perdikaris shows them to be composed almost exclusively of large codfish processed for market rather than for local on-site consumption, since the remains consist almost exclusively of heads and few tail parts. Small amounts of waterfowl and seal bones yet to be identified are also present. Comparison with fish remains from other sites in the North Atlantic region

participating in the NABO Program shows Hare Harbor fits squarely in the 'market fishing' category of sites dating to post-medieval times.

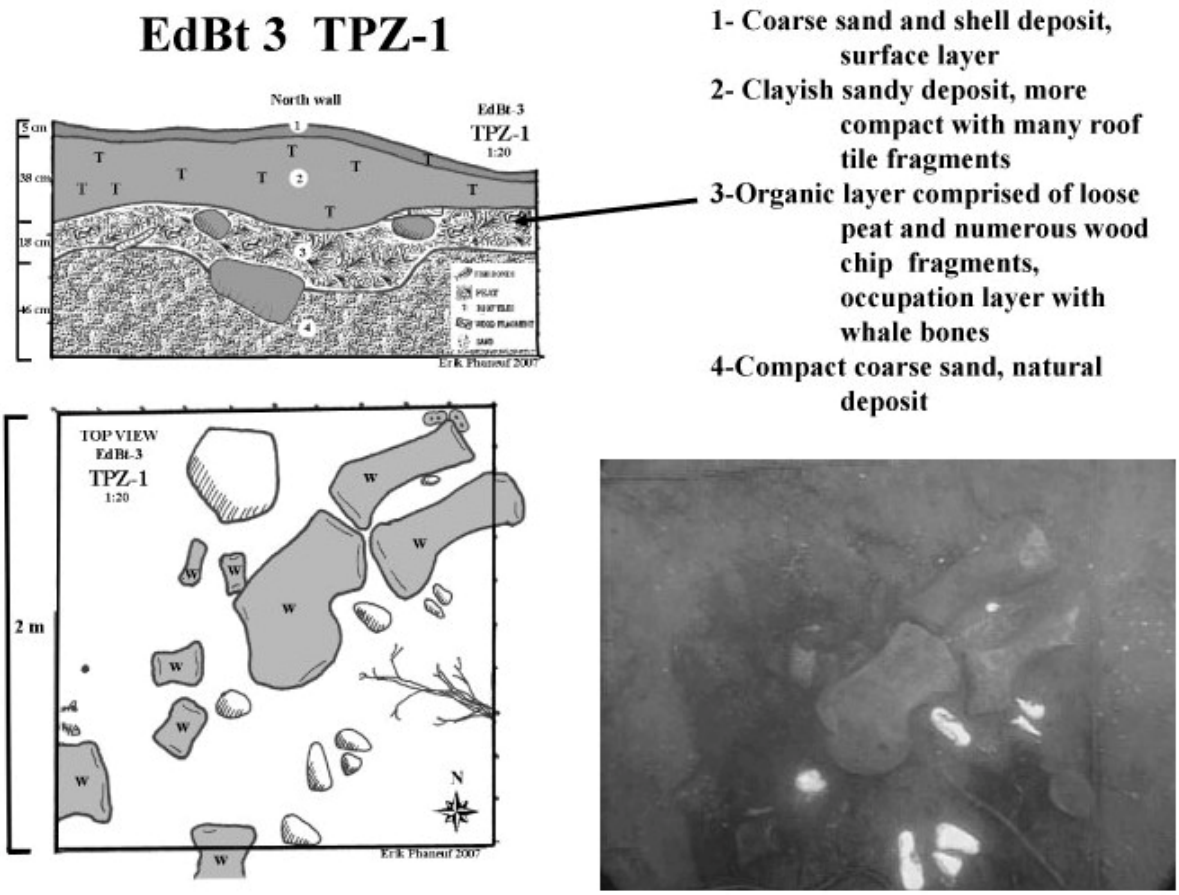

Figure 18: Documentation and profile of the TPZ-1 excavation unit in which an articulated whale fin was found. (Erik Phaneuf)

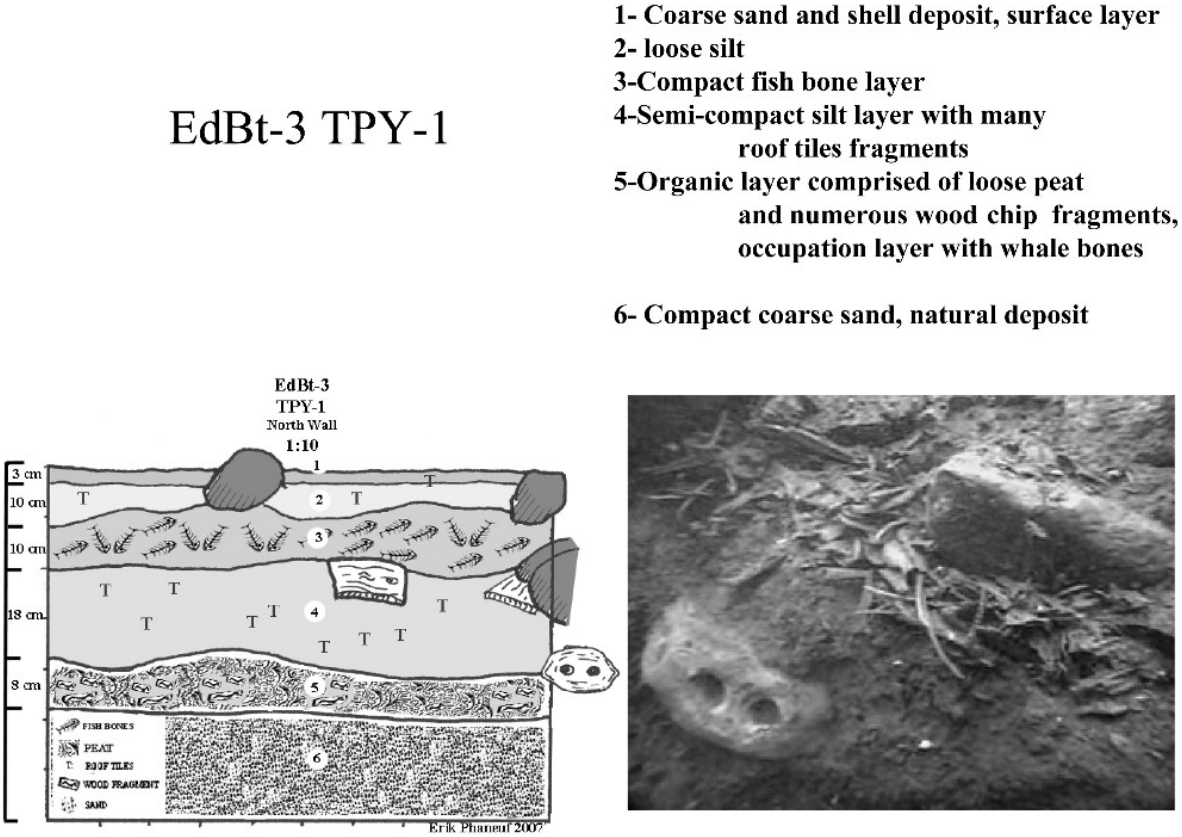

Figure 19: Documentation and profile of the TBY-1 excavation unit showing a whale vertebra overlain by fishbone midden. (Erik Phaneuf)

Analysis of whale remains from 2007 is not yet complete. However DNA studies by Brenda McLeod of about a dozen whalebone samples from previous years reveal them to be humpbacks and bowheads, not Atlantic right whales. The DNA results represent many different individuals and not the remains of just a few whales; so Mecatina Basques were whaling on a regular basis, not just taking the odd passing animal. Absence of shore-based try-works indicates that rending must have taken place aboard ship, not on land as at 16th century sites. Absence of harp many seal bones in the midden levels suggests the crews returned to Europe before the late fall harp seal migration. A curious feature of the larger whale phalanges and flipper parts recovered is that most have been sawn through along their longitudinal axis. Was this part of the butchery process, or to facilitate extraction of oil?

Site History

As noted above, stratified peat layers in the land bog between the cookhouse and smithy reveal a sequence of 8-10 re-occupations, with sufficient lapse intervals for vegetation re-growth. While this sequence tells us much about duration of site occupation, possibly spanning one or more decades, the underwater stratigraphy gives a more detailed picture of the sequence of activities taking place over the occupation span. The initial occupation involved site clearance and timber and wood-working activities such as construction of shore facilities and perhaps piers or even boat-building. This was followed by a period of whaling, followed after an interval by market-oriented cod-fish production. Throughout this period ballast piles accumulated, ceramic vessels were lost or discarded, along with shoes, leather garments, glass, and other materials. Tiles were discarded throughout the sequence, and their broken state suggests they were discarded upon arrival after braking during the outward voyage. The formation of the twelve ballast piles suggests that multiple vessels used the anchorage cove, moored perpendicular to the shore, 'Mediterranean style,' with a line ashore and an anchor to sea. The larger central piles indicate preferred mooring location; but on occasions when several vessels were present, less desirable berths were taken, resulting in smaller outboard ballast piles. Closer study of these ballast pile materials during the coming year should indicate the homeports of these vessels, and possibly their tonnage, based on estimates of the total volume of ballast rock in individual piles.

Today, Hare Harbor is known locally as 'Eskimo Bay,' and historical records mention Petit Mecatina as a location where an Inuit (Eskimo) family was murdered by Indians in the 18th century. This may explain the presence of Labrador Inuit soapstone vessels in the cookhouse. If so, they may have been living here year-round to guard the Basque facilities. Service employment may have been an important factor in the expansion of Inuit settlement south of Labrador and along the LNS, into traditional Indian territory.

However, conflict with European interests was probably the more serious issue for the Mecatina Basques. The late 17th and early 18th centuries were a time of conflict between European powers along the LNS, and records indicate that jurisdiction for this region flip-flopped back and forth between the French and English (Belvin 2006). American privateers were also plundering here for fur and fish. It is probably only because of the region's topographic complexity and navigational difficulties that Basques were able to exploit loopholes in French and English naval power.

Finally, one of the interesting issues raised by the diversity and widespread sources of Mecatina finds is the question of 'Basque' attribution itself: how do we identify the regional, ethnic, or political affiliation of an archaeological site of this type, given the multi-national and increasingly 'globalized' nature of late 17th C. European ventures in the northwest Atlantic? Many of the finds are of Iberian and Bergundian origin, and the ballast appears specifically from the Basque country. But other materials have a north European origin. I believe that the voyages originated and were financed in the Basque country, but by the late 17th C Basques were participating in the wider globalizing economy of Europe.

Figure 20: Labrador Inuit houses found by Dumais and Poirier (1994) at Belles Amour Peninsula. View to north. (Fitzhugh & Phaneuf)

Elsewhere, our surveys along the Lower North Shore produced information that reinforces this view of the region as a cultural and economic frontier. Continued testing at the Boulet Tickle site between Mutton Bay and La Tabatiere allowed us to localize a Basque component

that should provide interesting counterpoint to Mecatina. Our visit to Belles Amours Point, where we visited for the first time the two sod houses reported in 1994 by Dumais and Poirier (EiBi-12), confirmed their conclusion that these are typical Labrador Inuit winter houses (Figure 20), and in addition we located an Inuit cairn grave (Figure 21). The occupation of this 'communal house' settlement, with entrance passages and raised rear sleeping platforms, however, appears to have been brief and perhaps only a single season. The date suggested by the architecture and European finds is probably ca. early 18th C. Our tests at the nearby Hart chalet site (EiBh-47) originally explored by René Levesque in the 1960-70s, revealed evidence of Inuit occupation dating to the 16-early 17th C., based on the presence of stone beads, an iron point, and a whalebone sled-runner (Figure 22), and early Inuit ivory needlecase fragment (Figure 23). This settlement is much earlier than the Belles Amour occupation. The extensive sea mammal and caribou faunal remains and presence of iron nails, European ceramics, and tiles suggests an occupation by Inuit who camped here in the 16th century to utilize materials salvaged from the Basque site René Levesque identified at this location (Figure 24).

Figure 21: An Inuit stone cairn grave associated with the communal houses at Belle Amours. (Fitzhugh & Phaneuf)

Figure 22: Test pit at the Hart Chalet site revealing an Inuit occupation level with whalebone sled runner, iron point, stone tubular bead, and harp seal bones found above a level with Basque tiles. (Fitzhugh & Phaneuf)

Figure 23: Fragment of a Thule-type walrus ivory needlecase recovered from a test pit at the Harp Chalet site. (Fitzhugh & Phaneuf)

Figure 24: Stratigraphy of a test pit at the Hart Chalet site showing dark organic bands with Basque (lower) and Thule (upper) occupations separated by a sand level. (Fitzhugh & Phaneuf)

Summary

The 2007 Gateways Project produced exciting new results that substantially advance our knowledge of the early history of the Lower North Shore. The expanded underwater excavation completed four 2x2 meter pits with careful documentation and stratigraphic control. In addition to recovering a number of ceramic vessels, including a fine decorated faience porringer bowl and several large storage jars, we discovered whalebones that could be stratigraphically linked to the early occupation of the site. Flint, molded glass and other remains were also recovered. We now have evidence of spatial distinctions at the underwater site representing, at least, localization of whale butchery, fish processing, and wood-working activities in different areas of the site. Profiles of the deposits have allowed us to refine the sequence established last year, to wit: (1) initial occupation; (2) site preparation represented by extensive wood-working and timber processing; (3) whaling and related activities; (4) a hiatus period; (5) and an extensive cod fish processing enterprise with evidence of local bird and animals (especially seal) procurement. An almost identical sequence of deposits was found in the shore trench excavated at the Red Bay 'San Juan' excavation site. Tiles are present throughout the sequence. The storage jars appear to be coming from southwest France; the faience from the Iberian Peninsula; and the limestone ballast is almost certain of Biscayan origin.

These finds suggest a more complex history for the Petit Mécatina site than we previously envisioned. In addition to Inuit presence we have evidence of multiple European occupations, most of which appear to be Basque-related, but with a wide range of European products and technology present. Further, evidence of extensive burning suggests that the site was occasionally

– if not repeatedly – sacked, and may have changed hands. While historical research on the Lower North Shore is still in its infancy, there is growing evidence that the LNS during the 16-18th C. was a frontier zone utilized by a variety of groups for extracting resources, including whales and seal mammal products, fish, furs, and timber. Further archival and archaeological research may provide information to clarify the complex economic and social history that is beginning to be revealed at Mecatina.

Finally, in addition to evidence of Labrador Inuit found previously at Mecatina and Jacques Cartier Bay, 16th century Basque and Thule/Labrador Inuit sites at the Hart Chalet and 18th century Belles Amours Inuit houses and associated graves, not previously reported, provide new opportunities for understanding the southern margin of Inuit occupations and their complex relationships with early Europeans between the 16-18th century.

In Memory of René Levesque

The 2007 St. Lawrence Gateways Project was dedicated to the memory of René Levesque who died in Quebec City on 14 February 2007. René was a long-time friend and colleague who for many years urged me to extend my archaeological work into 'the other Labrador' along Quebec's Lower North Shore. I did so in 2001 and had the pleasure for René's company on board *Pitsiulak* for several days during our initial exploration of the region. A truly unique personality as well as a perceptive anthropologist and historian with an indescribable personal style and linguistic flair, René trained many first generation Quebecois archaeologists. Soon, however, the discipline passed him by, leaving him custodian of a large body of archaeological evidence that he found difficult to systematize and present professionally. Fortunately during his last few years he was able to complete a manuscript on this material. Fairly criticized for his often destructive field methods and for his failure to fully publish many of his projects, René nevertheless deserves credit for his pioneering contributions to the training of an early generation of Quebec archaeologists, for initiating a Quebec archaeological perspective, and in particular for initiating archaeological and ethnohistorical research on the Upper and Lower North Shore. I hope history will be as kind to him as he was dedicated to it.

Acknowledgments

The 2008 Gateways Project was supported financially by the National Museum of Natural History (Bateman Fund) and donations from General and Mrs. Raymond Mason and Mr. Robert Malott, and by a substantial donation of travel, personnel, and equipment resources from the Marine Archaeology Program of the University of Montreal directed by Dr. Brad Loewen. UM provided support for students Frederic Simard, Marilyn Girard-Rheault, and Vincent Delmas; loan of pumps and dredges, and cameras; and Dr. Loewen has provided assistance in a variety of areas. Frederic Simard directed part of the underwater excavations and produced video documentation, and Vincent and Marilyn provided support for the underwater and land excavations. Erik Phaneuf once again directed the underwater work. Sophia Perdikaris kindly analyzed the fish remains from the 2006 season and made those results available for this report. Anja Herzog catalogued and identified the artifact collections, and Reginald Auger provided financial support for artifact preservation, carried out by the Quebec Ministry's Conservation center. This year's archaeology permit was coordinated by Gilles Samson and Frank Rochfort, and records management by Claudine Giroux and Frederic Simard. Christie Leece from the Smithsonian joined the project for a fifth year, diving and helping with land excavations and helped produce the 2005 field report. Smithsonian Research Collaborator Wilfred Richards provide professional photographic documentation and assisted with excavations together with my brother Josh (John Hardy Fitzhugh), who made his first trip into the north. As always, the project could never have taken place were it not for our skipper, Perry Colbourne.

I would like to express my appreciation for the support and assistance provided my many individuals and communities we worked and visited with during the course of the project: Greg Wood and Joanne Farrell; Kelly and Robert Linfield; Dennis and Stephen Colbourne and the Long Island Ferry crew; Louise Colbourne, Boyce Roberts, Gina and Adrian Noordhof, Christine and Wilson Evans, Helen and Miles Evans, the Harrington Community Seafood Corporative, the Harrington Medical Center, Paul and Cynthia Rowsell, the Philip Vatchers of Mutton Bay, Clifford and Florence Hart of Brador, and the towns of Harrington Harbor, La Tabatiere, and Lushes Bight. All helped make the 2007 Gateways Project enjoyable, safe, and productive.

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BACCALIEU TRAIL ARCHAEOLOGY, 2007

William Gilbert
Baccalieu Trail Heritage Corporation

Field work began this year on May 22 and continued until November 2. During the first week (May 22-25) we undertook some improvement work at the Beothuk site at Russell's Point, repairing and painting the fence and planting trees around the boundary of the site, and did some further testing at the Custer's Head site in Hant's Harbour. The Custer's Head site was first discovered in 2004 and has both a Recent Indian and a late 17th/early18th century component. In 2005 we uncovered the footing of what appears to be a late 17th century house. In May we returned and did some more digging in an attempt to determine the dimensions of this structure.

Uncovering a Bellarmine base at Custer's Head, Hant's Harbour. May 2007. (Gilbert)

Dildo Island

Between May 28 and July 27 we conducted more survey work and excavations on Dildo Island. There is a large Dorset Eskimo site on the Island and excavations were conducted there between 1996 and 1999. Radiocarbon samples recovered from the Palaeoeskimo site indicate that it was occupied between AD 70 and AD 720.

Over the past six years we have discovered that there is also a large Indian site on the Island. We began work on the Indian site in 2001 and between then and 2004 we uncovered a Recent Indian dwelling, a stone feature that appears to be a sweat lodge, and a five metre long Recent Indian fireplace. Radiocarbon samples from the fireplace show that the site was occupied around AD 800 and an analysis of the bones from the fireplace indicate that it was a base camp occupied during the spring and summer months.

We returned in 2007 and conducted more survey work in an effort to locate more Indian material. Four more Recent Indian fireplaces were uncovered all dating from roughly AD 800. We also discovered another Indian camp farther south that appears to date from about AD 1200 or 1300.

Uncovering Hearth 5 in Area C on Dildo Island. (Gilbert)

A Recent Indian Biface found in Hearth 5. (Gilbert)

New Perlican

The Hefford Plantation in New Perlican was discovered during an archaeological survey of that town in 2001 and excavations have been conducted at the site every year since then. The site was first settled by William Hefford and his family in 1675 and appears to have been occupied continually since that time. Over the past six years we have dug in five different areas on the site and uncovered over 20,000 artifacts and the remains of one structure that was destroyed by fire sometime late in the seventeenth century.

This season we concentrated our work on Area E located in a grassy meadow at the north end of the site. Excavations here produced evidence of an occupation during the late 17th and early 18th century. A large number of animal bones, teeth and jaw fragments were recovered suggesting that this may have been a place where animals were butchered. The remains of a post found in the last few days of the excavation may be part of a structure that once stood in Area E: possibly a barn.

Excavating Operations 19 and 20 in Area E, New Perlican. August 2007. (Gilbert)

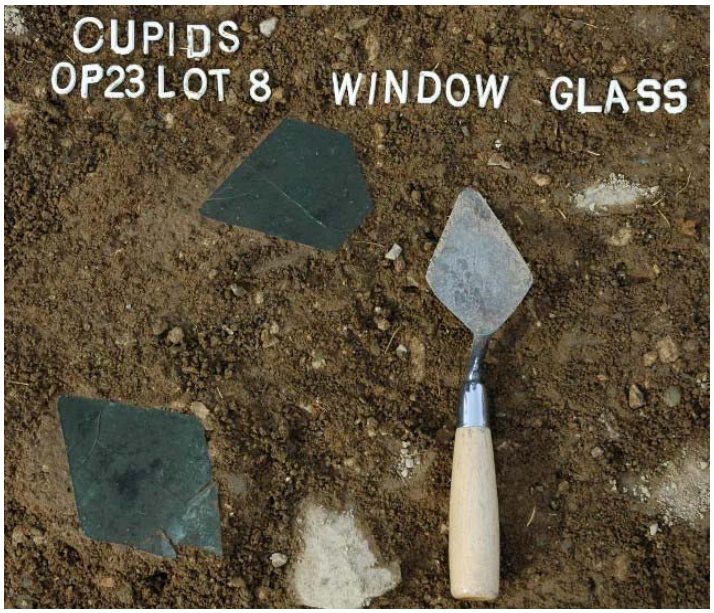
Cupids

Cupids is the site of the first English settlement in Canada established by the London and Bristol Company of Merchant Venturers in 1610. The site was discovered in 1995 and excavations have been ongoing at the site every year since then. Over that time we have uncovered the remains of four buildings, including the dwelling house and storehouse erected by the colony's first governor, John Guy, in 1610, a number of related features, and over 122,000 artifacts.

This year the site at Cupids was open to visitors seven days a week from June 9 until October 12 and excavations were conducted between September 24 and November 2. During this period the excavation was extended south in an effort to uncover more evidence of the enclosure erected by John Guy in 1610. As well, the excavation of a building (Structure 2) first discovered in 1999 was completed.

The early 18th century headstone found at Cupids. (Gilbert)

Structure 2 was a small building (9ft x 15ft) located just three feet south of and parallel to the storehouse erected by John Guy in 1610. Although small, Structure 2 obviously had glazed windows. Numerous fragments of light-green, seventeenth-century window glass have been recovered from the building including two complete panes, or 'quarries' found in the northwest corner of the building. A number of these quarries would have been fitted together with lead strips, sometimes referred to as 'cames', anchored to iron frames and fitted into wooden casements to form a window.



Two 17th century window panes, or quarries, from Structure 2 in Cupids. *(Gilbert)*

Large numbers of wrought iron nails that must have originally been used in the construction of the building were also found. Other artifacts recovered from Structure 2 include shards from various types of coarse-earthenware vessels and fragments of seventeenth-century case bottles and shaft and globe bottles. Several trade beads have also been recovered.

One of the most exciting discoveries at Cupids this season was also the most unexpected. While moving some wood next to the back dirt pile, we uncovered a six ft. (1.83m) long and 27 ½ inches (69.8cm) wide headstone. At least two lines of a well-weathered inscription are visible although it has yet to be deciphered. According to Dr. Jerry Pocius, the stone likely dates from the early 18th century and was probably carved in Dorset, England. We do not know whether the stone marks a solitary grave or is part of a larger cemetery but next season we will open up more of this area and see if we can uncover any other evidence of burials.

Once field work was completed cataloguing, conservation and analysis continue at the lab in Cupids until December 21. Report writing will be ongoing throughout the winter and the site, lab and museum will open to visitors again early in June 2008.

PROVINCIAL ARCHAEOLOGY OFFICE 2007 FIELDWORK

Blair Temple, Stephen Hull, Delphina Mercer & Ken Reynolds
Government of Newfoundland and Labrador

In May 2007, Blair Temple and Stephen Hull of the Provincial Archaeology Office (PAO), with the assistance of Rob Anstey, a local archaeology student, conducted a Historic Resources Impact Assessment at Back Harbour, Twillingate. A local resident had proposed to construct a rental cabin in the vicinity of DjAq-7, an archaeological site first identified by Donald MacLeod of the National Museum of Man (now the Canadian Museum of Civilization) in the late 1960s. It was suspected to contain one or more Maritime Archaic Indian burials. The main project area measured approximately 45 by 20 metres in size, and is located on a long grassy field in the southwest end of the community, just metres east of the shoreline.

A total of forty-nine 0.5x0.5 metre test pits were excavated throughout the length of the project area. The northern portion of the project area is known to have been heavily damaged by heavy equipment during the 1960s, and this was confirmed by test pitting. Despite the apparently extensive prehistoric occupation throughout the entire Back Harbour area, relatively little pre-contact cultural material was recovered. Some somewhat diagnostic artifacts were recovered near the area bulldozed in the 1960s – the same area determined by MacLeod to contain the burials – such as a small scrap of mica and an ochre-stained tip from a woodworking tool. A quantity of historic material was recovered, suggesting that a possible early nineteenth century context did exist at the site before it was destroyed by 19th – 20th century gardening.

In addition to this area, a smaller cabin was also slated to be constructed to the south of the main project area. The location for the cabin was also tested, but no significant cultural remains were found.

Area Tested at Back Harbour, Twillingate. (Temple)

Twillingate & Donald MacLeod

From November 2006 to May 2007, Blair Temple conducted research into the archaeological activities of Don MacLeod at Back Harbour, Twillingate, Newfoundland, which occurred during the late 1960s, in an attempt to better explain a poorly understood but significant collection of archaeological material.

In 1966, Donald MacLeod traveled to Back Harbour, to examine recent finds in the community. Local residents, Frank and Stanley Curtis, had recently discovered stone tools and other artifacts in their garden while digging a hole for an outhouse. Provincial authorities were informed, who in turn contacted the National Museum of Man. MacLeod arrived in Back Harbour expecting to see a Beothuk burial, probably destroyed by souvenir hunters. Instead he quickly determined the site to be a relatively intact "Moorhead Phase" (later renamed Maritime Archaic Indian) burial site. This would be the first of four visits Don MacLeod would make to Back Harbour during the late 1960s.

Don Macleod left the National Museum in 1970, and the reports and related paperwork on the Back Harbour sites were never completed. It was known that nine archaeological sites had been discovered and registered, but little else was known about most of the sites. In 2006 the PAO became aware that local individuals had been discovering material culture throughout the community for years, and it was then determined that further research should be carried out with respect to the MacLeod excavations and the material discovered. In November of 2006, Ken Reynolds and Blair Temple of the PAO, accompanied by Dr. Priscilla Renouf and Patty Wells of the Archaeology Unit, Memorial University, traveled to Back Harbour to investigate the area and better locate the sites MacLeod was said to have discovered. In late February/early March 2007, Blair Temple traveled to the Canadian Museum of Civilization to examine the collections excavated by MacLeod during the late 1960s, and to search the CMC archives for further field notes and related documentation. Eventually, all nine sites were located and named, and a much better understanding of the culture and significance of each determined. As well, the numerous pre-contact and historic sites discovered by local people were recorded during the process.

Most of the sites discovered by MacLeod have either Maritime Archaic Indian or Dorset Paleoeskimo affiliations (in some sites, both). Two Maritime Archaic burials are known (DjAq-1 and 7), as well as several large woodworking sites (DjAq-4 and 5). Some interesting discoveries in the CMC collections include the presence

of two Groswater-variant endblade bases from DjAq-8, and the fact that just one site had unquestionable Recent Indian or Beothuk material (DjAq-6). Overall, while scant and sporadic, pre-contact material culture has been discovered virtually everywhere around the harbour, not to mention the tremendous number of nineteenth- and early twentieth-century cellar pits and foundations that dot much of the landscape.

Foxtrap 2, Delaney's Road

Late in 2006 the PAO was contacted about the possibility of having several historic graves removed from private property in Conception Bay South. This site is located on Delaney's Road in Foxtrap, Conception Bay South. In 1998 the site was reported by the current landowner. At the time he wanted to buy the land and have the burials removed; he eventually bought the land and agreed to fence off the burials. Drs. Jerkic and Pastore from Memorial University's Archaeology Unit visited the site in June of 1998. They recorded what they believed to be between six and eight broken slate headstones and a lot of undulating ground in the area; they thought there could be 20-30 burials. The sister of the original land owner reported that there were no burials placed there during her father's or grandfather's time, so the existing burials likely date before 1860.

Blair Temple and Stephen Hull inspected the site in January of 2007. They found that the burials are now located on a man-made 'island' of original land – all the land around them has been cleared using a tractor leaving the burials completely isolated. The 'island' is ~11m x 14m in size.

Man-made island that contains the burials. (Hull)

There is one headstone with mostly illegible writing that is badly broken into 4-5 large pieces. It is possible that the stone once read: "Sacred to the Memory of" and the name of the deceased and the date he/she died. There was at least one more formal headstone which also was broken into pieces. However, unlike the other formal stone this; it had no writing on it. Also found at the site were several (5-10) small vertical slate slabs in the ground. Based on prior experience at similar historic grave yards visited by PAO staff (Portugal Cove, Tors Cove and Colliers) it is very likely these stones also mark graves. It is not clear if these stones mark both the head and foot of a grave or just the head. Given this uncertainty, as well as the presence of other stones that may mark graves, and the undulating surface of the area, it is difficult to arrive at an exact number of burials at the site.

A broken headstone with text. (Hull)

Five of the small vertical slate stones that may mark graves. (Hull)

Vertical stone grave markers at Tors Cove. (Hull)

Burin Peninsula

In 2006 the Provincial Archaeology Office (PAO) hired a contractor to conduct a heritage inventory on the Burin Peninsula. Prior to this project just 19 archaeological sites had been registered on the peninsula and only four archaeologists had conducted work there. Each of those projects was limited, short term survey or monitoring work.

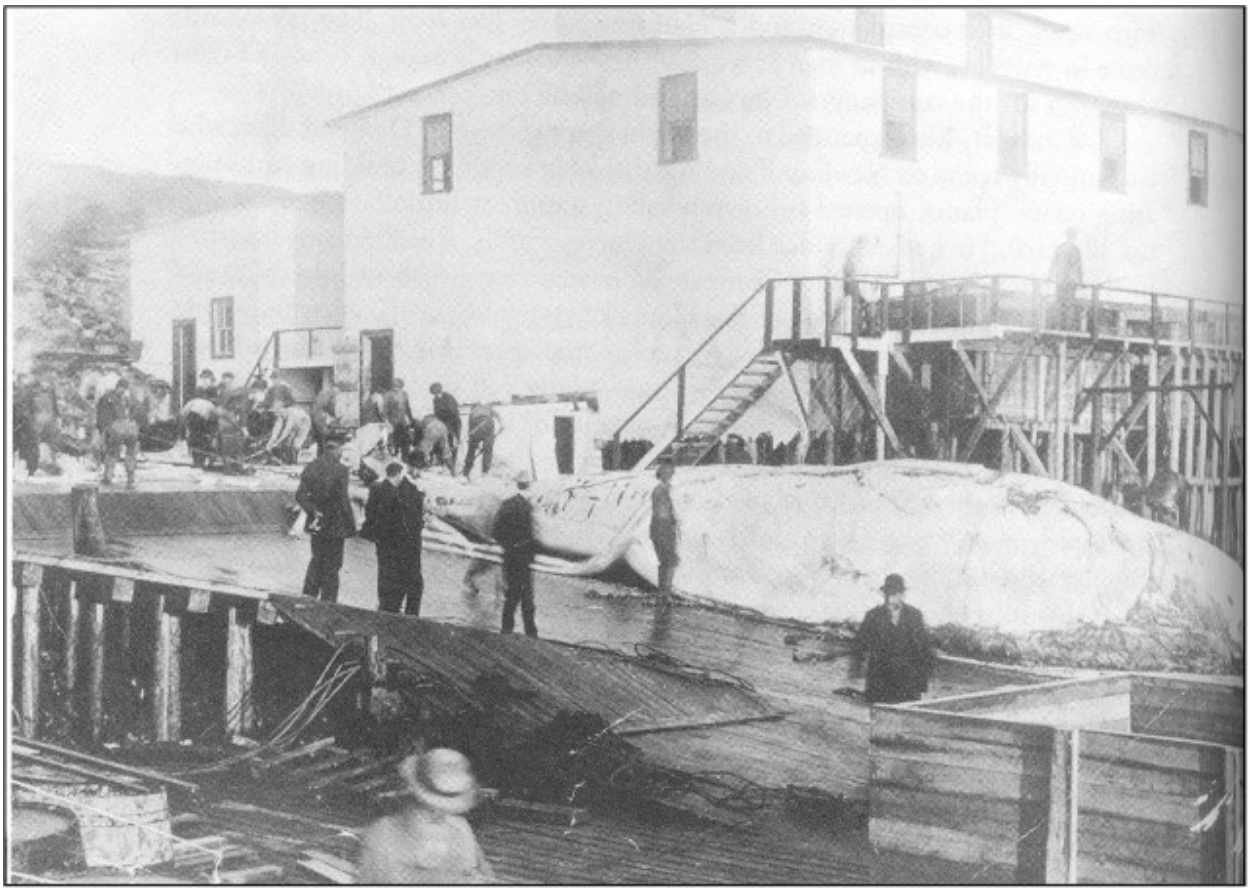
PAO staff carried out field work in 2007 that was based on the recommendations in the 2006 heritage inventory report. Areas investigated included: Little St. Lawrence; Burin and Little Mortier Bay. The following discussion details the results of the assessment of these areas in 2007.

The first place surveyed was in Little St. Lawrence. Local reports indicate that the western side of Little St. Lawrence Harbour was suspected of having once had a historic whaling facility – those same reports suggested the facility was either Basque or French.

Searching along the western shore of Little St. Lawrence Harbour we encountered what we believe is the source of the local reports for a whaling facility. In two areas we noted several large crumbling concrete blocks with large pieces of rebar protruding. The blocks are in poor condition.

Crumbling concrete blocks on the western shore of Little St. Lawrence Harbour. (Hull)

Contrary to what local reports suggested as recorded in the 2006 heritage inventory, these concrete blocks are not related to early historic period Basque or French occupants. In fact, according to *Twentieth-Century Shore-Station Whaling in Newfoundland and Labrador* by Anthony B. Dickinson and Chesley Sanger (2005) a whaling facility was constructed at Little St. Lawrence in 1903 and operated until 1907. It was owned by Dr. Ludwig Rissmüller.



Flensing a whale at the Little St. Lawrence Whaling facility in 1906 (Dickinson and Sanger 2005: 58).

The second place surveyed was on the eastern shore of Little St. Lawrence where there was reported to be another historic whaling facility as well as a fortification. Based on local reports these occupations were supposed to have been on the large island on the eastern shore of Little St. Lawrence Harbour. This island is connected to the mainland by a tombolo storm beach. There is an old pathway that completely encircles the entire island which was walked and searched for hints of past occupations. Nothing of significance was found until we reached the north-western side of the island.

While we found no evidence of a historic whaling facility or fortification, this island does contain an extensive 19th century European occupation on its north-western end. It is likely that the stories about the whaling facility in this location were meant to reference the facility on the western shore of Little St. Lawrence Harbour. The 19th century European occupation contained several cellar pits and the outline of several buildings along the shoreline.

While no evidence of a fortification was found, the local stories may have some glimmer of truth to them. Early in September of 1702 Sir John Leake, admiral of the fleet, commodore of the Newfoundland convoy and temporary governor, sailed in to Little St. Lawrence and burnt two vessels and destroyed all the houses, boats and stages of the French people living there. Unfortunately, the references to this attack don't say where in Little St. Lawrence these attacks occurred or how many houses, boats and stages were destroyed. (p.348, Encyclopedia of Newfoundland and Labrador, Dictionary of Canadian Biography Online). It is possible that through the passage of time this story has been altered to include the fortification that was referenced in the 2006 heritage inventory.

The next place surveyed was in Burin. In 2006 the archaeology survey team visited private property, with the land holders' permission, that was reported to contain the remains of a 19th century Jersey occupation. At that time the team was told the site was for 'processing green fish'. They noted that the site contained several foundations, rock walls, and remnants of stages and wharves.

This site appears to be well understood by the local museum and we were thoroughly informed of its past by Ken Armstong of Burin. The site contains two extensive and well-made stone walls, a stage structure with a large area that we were told functioned as a wharf, an extensive cobblestone bawn, house foundations and a single grey-white headstone.

Portion of the stone wall at the Jersey site in Burin. (Hull)

Wharf and stage area at the Jersey site, Burin. The former wharf is in the foreground while the stage area is in the background. (Hull)

While we were in the Little Mortier Bay area an attempt was made to locate a possible European fortification that was reported in the 2006 Heritage Inventory. It was recorded as a European fortification based on the presence of a cannon which was photographed in 2006. Unfortunately, after more than 2 hours of searching in some very difficult conditions, we were unable to relocate the cannon and test for the presence of a fortification. However, this cannon is already part of a recognized archaeological site, CgAs-01, Little Mortier Guns. In 1982, the Newfoundland Marine Archaeology Society searched the area of water below where the cannon on the hill is located. They had been informed of several other cannons in the water. They were able to locate three cannons but no trace of a shipwreck. Upon learning of the fourth cannon on land, which is likely the one photographed in 2006, they speculated that the three under water were part of a gun battery that once protected the entrance to Mortier.

Cannon on the hill near Mortier, part of archaeological site CgAs-01, Little Mortier Guns. Photo from 2006.

Colonial Building

Monitoring of the installation of a new oil tank and line and the removal of the old tank at the Colonial Building occurred over a three day period from July 24th to the 26th, 2007. Most of the ground disturbance occurred on the 26th and was monitored by Ken Reynolds and Stephen Hull.

No features were present and mainly 20th century artifacts were found, none of which were *in situ*, including window glass (main artifact in frequency), green, white and brown bottle glass, a small piece of white tile, shoe leather (?), modern pipe stem and red brick. A nail, kaolin pipe stem fragment and a couple sherds of ceramic are likely dated to middle to late 19th C in age. Two 10oz Pepsi bottles were located in the road gravel on top of the old fuel tank. Presumably they were thrown into the fill by the workers when the asphalt was laid down (mid to late 1970's?).

Assorted 20th century artifacts found during monitoring at the Colonial Building. (Reynolds)

Royal Newfoundland Constabulary Stables

On July 12, 2007 Delphina Mercer and Stephen Hull tested the location for the new Royal Newfoundland Constabulary (RNC) Stables, which are to be on the Government House property.

We met briefly with Mr. Ron Ershler who works at Government House and two RNC officers from the Mounted Unit. Mr. Ershler pointed out the area to be used for the new stables and confirmed that there had never been another building on the area. He also showed us property plans dating back to the early 1800s showing the area was and still is used as a garden. He also told us that the area had been used to occasionally dump household garbage.

We dug seven testpits down to sterile subsoil ranging from 15 to 45 cm deep. Recent cultural material (100-150 years old) in a disturbed context was recovered in several testpits. The material included animal bone, glass, ceramics, iron and smoking pipe fragments. All of the material was consistent with recent historic household rubbish having been badly broken and then discarded in an area of gardening where the artifacts were further disturbed and broken. No intact features were seen in any of the testpits.

Testing the area to be used for the new RNC Stables on the Government House property. (Hull)

Catalina, Fogo & Glenwood

The *Historic Resources Act* includes provisions for the protection of fossil sites. The purpose of the trip to Catalina was to get GPS readings and photograph the general vicinity of fossil beds located in the area.

One of the fossil localities in Little Catalina. (Hull)

The first fossil bed was located on the west shore of Little Catalina Harbour; others were located on the south side of Catalina Harbour. The location of the first fossil bed along the east shoreline Catalina Harbour is near a small abandoned community known as Murphy's Cove. Our brief survey of the cove revealed house/building foundations, stone walls and probable root cellars. These features will be recorded as DdAg-02. According to the website:

www.thediscoverytrail.org/english/hikediscovery/murphy.html :

> Murphy's Cove is also known on maps as Southeast Cove, and in 1918, it was home to two families who fished, farmed, and raised livestock. The settlement was abandoned in the 1960s, because the neighbouring communities of Port Union and Catalina had more to offer. The road to Murphy's Cove was constructed entirely by the men of the small settlement and now serves as part of the Murphy's Cove and Lodge's Pond Trail.

The stone walls at Murphy's Cove. (Hull)

After briefly exploring Murphy's Cove we walked out to another fossil location. Being at the head of Burnt Point on the south shore of Catalina Harbour, this location is the most exposed of the sites we visited.

The fossil beds at Burnt Point. (Hull)

(John Erwin's report on his 2007 Fogo survey, included in this document, is a continuation of this survey.) On August 13th we travelled to Fogo Island to meet with the Town Mayor, Andrew Shea, and investigate a stone feature he reported to the PAO.

The stone feature which Mr. Shea found is located on the eastern shore of Seal Cove, about one kilometre south of the centre of the Town of Fogo. Seal Cove itself has been the location of previous archaeological activity. In 1887, Thomas Farrell discovered a human burial while doing construction work in the area. Farrell described the burial feature as 30 inches deep and wide, and six or seven feet long, with large flat stones and birch bark enveloping the pit. A skull, some other bones, seal skin (apparently wrapped around the body), and two blades were found inside. This burial was attributed to the Beothuk. However, there is no mention of red ochre in the description of the burial which the Beothuk are so famous for using.

The stone feature appears to be made of locally available stone slabs which range in size from approximately 10-15 cm thick, and in some cases, up to a metre in length. They are neatly stacked in several organized tiers in an oblong fashion resulting in an approximately 2 m x 3 m stone feature (outside dimensions). As this was only meant to be a cursory investigation the size of the inside of the feature was not ascertained. In many ways the feature looks like a stone

food cache found in numerous places along the Labrador coast. However, such features are pretty much absent from the archaeological record on the island.

Seal Cove stone feature. (Hull)

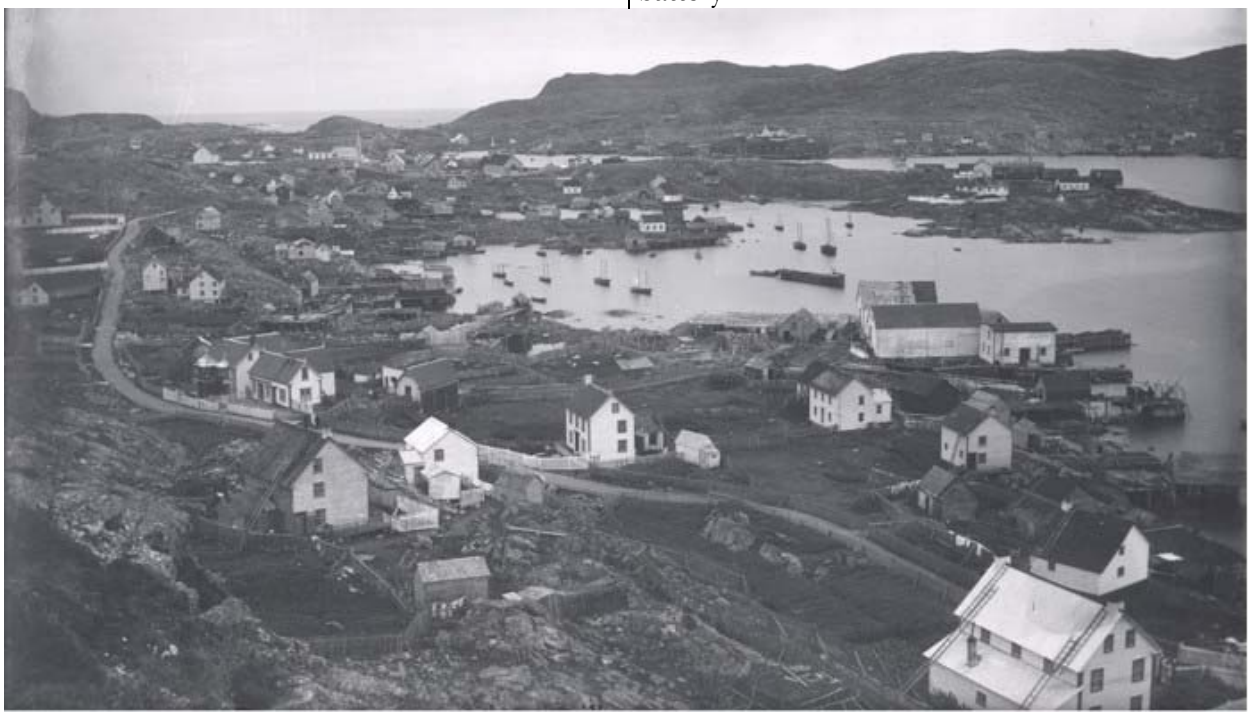
Upon completion of the examination of the stone feature and test pitting Mr. Shea took us to a cemetery in town to show us a headstone that dated to 1749 which the town wanted to remove in order to protect it. The headstone is for "Mary Osborn, Daughter of Waddam & Mary Osborn, Dyed August the 14 1749." It is made of pink soft stone, likely some form of sandstone and is the earliest dated headstone in the cemetery. There are also several small stones protruding from the ground in an open area of the cemetery which are likely head/foot markers for more graves, similar to those seen at Wester Point (CjAf-08) and Tors Cove (ChAf-01). Since the cemetery was being maintained by the town and church no Borden number was issued, despite the age of the Osborn headstone and likely related age of the cemetery.

Osborn headstone in Fogo. (Hull)

We briefly explored Fogo Harbour looking for the two historic gun batteries in the area. Both batteries, one at Wigwam Point, the other at Garrison Point, were erected in the late 18th century and were in and out of use until just after the War of 1812.

Wigwam Point has been heavily altered by later European activities that likely have impacted, if not destroyed, the gun battery. Historically, it appears as though the point was used for several houses. More recently, along with still being used for houses, the point has had a fish plant built on it which has done a lot of damage to the area.

Garrison Point, on the other hand, does not seem to have been as heavily impacted, historically. More recently the point has been occupied by numerous houses. Despite this there are still several large open places that may have been the location of the gun battery.



View of the community of Fogo, ca.1900. Wigwam Point is the large point of land in the far right area of the photo. Photographer: Holloway. www.library.mun.ca/qeii/cns/photos/index.html

The fish plant in Fogo on Wigwam Point. (Hull)

North side of Fogo, looking toward Garrison Point at the top left. www.library.mun.ca/qeii/cns/photos/index.html

Garrison Point in Fogo. (Hull)

The trip concluded with a brief visit to Glenwood where an attempt was made to look for a small archaeological site that may be impacted upon by a proposed housing subdivision. The Gander River 2 site

(DfAr-01) was found in 1979 by Pastore and Evans during a canoe survey of the river. The site consisted of a small cobble hearth, roughly 75 cm in diameter, and 10 metres from the present high water mark. Part of a unifacial tool and a flake of Ramah chert were also recovered.

There are several dirt roads in the area near the site. At the end of one road we came to a gated fence and an unwelcome sign. We travelled down another road for several kilometres. Despite the distance travelled, accessing the site would have still meant going through just less than one kilometre of dense bush. Unfortunately, without the proper gear (hip waders or a canoe) there is little possibility of reaching this site.

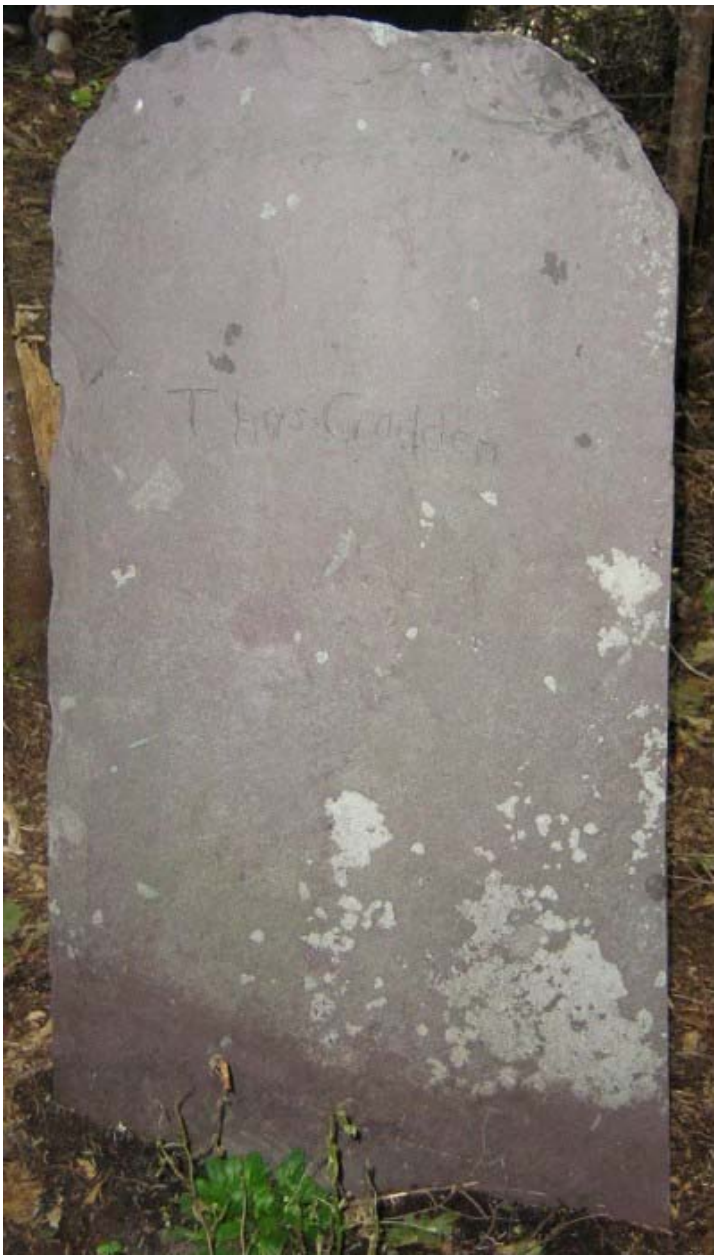
The end of the road in Glenwood. (Hull)

Shoal Harbour

The archaeological site at Shoal Harbour, Shoal Harbour Methodist Cemetery DbAl-02, was brought to the attention of the Provincial Archaeology Office (PAO) in 2006 through a term paper given to the PAO by an archaeology student. Knowing that it was an abandoned cemetery, a Borden number was issued and the site fell under the protection of the Historic Resources Act.

The PAO was contacted in 2007 by the local Heritage Society who were concerned that a housing development might impact the cemetery which contains some of the town's first settlers. As a result of this contact, Stephen Hull made a brief visit to the cemetery to assess its size and situation. Immediately recognizable were the headstones and a wire fence. The area was searched for other less recognizable signs of graves such as depressions or small stones that would denote burials such as those seen at Wester Point or Tors Cove. An extensive eroding bank that is just southeast of the burials was also searched for signs of more burials through erosion. No evidence of unmarked burials was found. After this brief inspection the PAO believes that all of the burials at the cemetery are contained inside the fence. Each of the headstones was also inspected. With the exception of two stones with biblical verses which were definitely moved, and possibly a large square slate headstone, all seem to be in their original place marking a burial.

Three of the headstones have legible text. Two made of rough marble or quartzite are broken and out of their original context (but, still within the cemetery). Both are missing their top half which would have had the deceased names and dates, but on their bottom halves there are biblical scriptures present. One of the large slate headstones has the name 'Thos Godden' or 'Gadden' inscribed in a rough informal hand written script. According to the local Heritage Society, Thomas Godden came to Shoal Harbour in the mid-nineteenth century with Scholar John Tilley and worked for him as an overseer in the mill and lumber business. It is thought that Godden was originally from England and fought in the Battle of Trafalgar under Lord Nelson. Scholar John Tilley, who died in 1871, is also thought to be buried at the cemetery.



Headstone of 'Thos Godden'. (Hull)

Blackhead

In October, the PAO visited the tip of Blackhead which is on the southern shore of St. John's Bay and 2km northwest of Cape Spear. An internet image showing stonewalls just off the East Coast Hiking Trail on Blackhead prompted the PAO's visit. When we arrived we found two circular stone features.

Initially we were puzzled as to what these features were, although we did speculate that they were related to the military. After some basic research we believe the features were dummy or decoy World War II batteries. This was confirmed by a Parks Canada employee who provided a photograph of one of the 'guns' and also suggested they were constructed around 1942. We were also able to locate a few brief references to them on the internet:

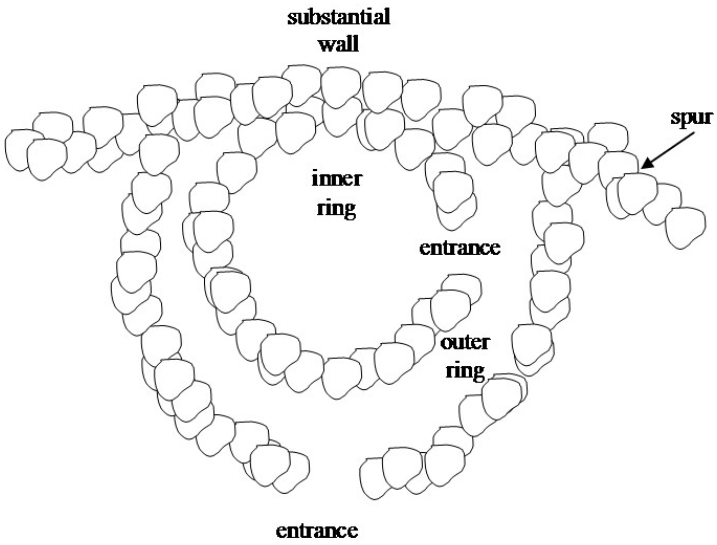
> **Blackhead Dummy Battery** *(1940's),Blackhead*
> A dummy (decoy) battery was located here, a few miles west of Cape Spear.
> http://www.geocities.com/naforts/nf.html
> During World War II there was a decoy built at this site a dummy fort, constructed to confuse any German planes that might make their way across the ocean. The sites were once equipped with fake guns and skeleton buildings.
> http://www.trailpeak.com/index.jsp?cat=hike&con=trail&val=1343

We were also able to find a reference to a similar type battery in New Brunswick:

> Sheldon Point, located between Saints Rest Beach and Dufferin Battery, was the site of a dummy gun battery. A dummy gun position had 2 purposes: to discourage attack by making defences appear more formidable; and to draw enemy fire in the event of an attack. The dummy gun was usually a simple tar paper construction (Plate 4).
> http://www.saintjohn.nbcc.nb.ca/heritage/Fortress/SheldonPoint.htm

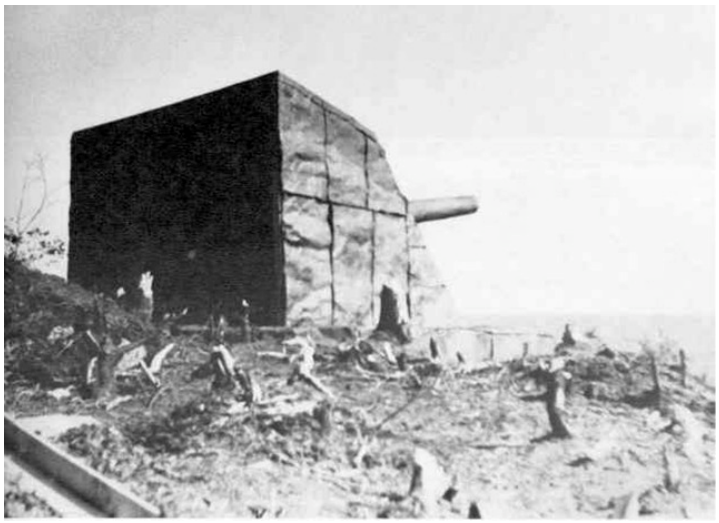
One of the two circular stone features at Blackhead. (Hull)

Dummy battery at Blackhead in the early 1940s. (Parks Canada)



Approximate plan map for both features showing main characteristics. (Hull)

Both stone features are very similar in their construction and measurement. Each has an internal ring made of 4 or 5 courses of dry laid stones which are ~50 cm high. They both have a more substantial wall on one side of their internal rings made of 8 to 10 courses of dry laid stones that is ~1.40m high. Each feature has an entrance in both their external and internal rings. The width of the interior ring for both features is ~5.50 m by ~6 m. The distance between the interior ring and exterior ring in both features varied between ~1.5 and ~2.5m. Both features had two spurs that protruded from each side of the substantial wall. On the Blackhead 1 feature these were ~4.50m long while on the Blackhead 2 feature one spur was ~4.20m long and the other was just 2m long.



Dummy battery at Saints Rest Beach in New Brunswick.

Grand Lake

Over a two day period last July the shoreline of North Harbour on Grand Lake from Howley to the main dam at Junction Brook was walked. Water levels were low, however they are still many meters above pre-flooding levels and as a consequence no sites were located.

Low water levels on North Harbour, Grand Lake in July. (Reynolds)

Northern Bay, Cod Looter Pond

In June of 2007 the Provincial Archaeology Office (PAO) was notified of a possible archaeological site located approximately 4.5 kilometers inland from Northern Bay, Conception Bay. The informants had discovered the site, which they said consisted of a four-sided rock foundation, while fishing at Cod Looter Pond during the May 24th weekend.

On the morning of November 1st, 2007 Ken Reynolds and Stephen Hull from the PAO accompanied archaeologist Gerry Penney and two Northern Bay residents to the Cod Looter Pond site to photograph and measure the feature.

The site is at approximately 210 masl and about 60 meters south of Cod Looter Pond. It is constructed of dry laid, medium to large, lichen covered, flat and rounded field stones. Rectangular in shape, the exterior measurements of the feature were 5m north-south by 4.20m east-west. The interior dimensions were 2.94m north-south by 2.27m east-west, giving a living space of about 6.67m^2. The interior is oval in shape and may have been covered either by skins or canvas depending on the site's age. The walls are not typical as "hold-down-stones" as they are several tiers high, approximately 40 cm in height and about a meter in width. Vegetation in and around the feature consists of caribou moss

Cod Looter Pond four-sided rock foundation. (Hull)

(*Cladonia rangiferina*), berry bushes and stunted alders and juniper. Below the ground cover small to medium sized rocks made up the living floor of the majority of the interior. However, there were a couple of quite large stones which appeared to be *in situ*. Some of the smaller to medium sized rocks located in the northern quadrants of the feature had been removed by pot hunters who had discarded them on top of the wall; these were replaced as best as possible at the end of our investigation. Other rocks appear to have slumped from the walls both to the inside and outside of the feature. Our turning over of stones near the center of the structure uncovered charcoal flecks and possible fire-cracked rocks, some of which were quartz, which is common throughout the area. Our informants noted that a forest fire had gone through the region in the early 1960's, though the presence of fire-cracked rocks could point to human activity being responsible for the charcoal. If so, the dating of the structure is a possibility. A possible exterior feature was noted at the north-west corner of the feature where a partially buried, upright stone surrounded by at least four other flat laying stones was observed. This of course could be a natural event, though the appearance of the stone as a post support deserves comment.

The four-sided rock foundation appears to be a habitation structure and most closely resembles examples found in Southern Labrador around the Cartwright area (Stopp & Reynolds, 1992). It is presumed that the structure was used as a caribou hunting base camp during the fall and winter.

The short appraisal of the Cod Looter Pond feature disclosed that it is definitely man-made, though by whom and how long ago could not be determined. It is surmised that the structure may have been used as a caribou hunting base camp which, if correct, could suggest a terminal date of occupation somewhere from the mid to late 19th century. This is dependant of course on the exact date when the Bay de Verde Peninsula's caribou herd collapsed.

The lichen growth on the stones also would seem to indicate some age to the structure and therefore perhaps the collection of a charcoal sample could be recovered for dating purposes. If nothing else a date could possibly tell us whether we are dealing with a historic or precontact age structure. However, as stated earlier, a forest fire went through the area in the early 1960's, which could interfere with the dating results. Presumably this was just one instance of many fires that have gone through the area over the centuries.

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If you have any comments or suggestions for the next Archaeology Review please contact Stephen Hull.
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