



Provincial Archaeology Office Annual Review

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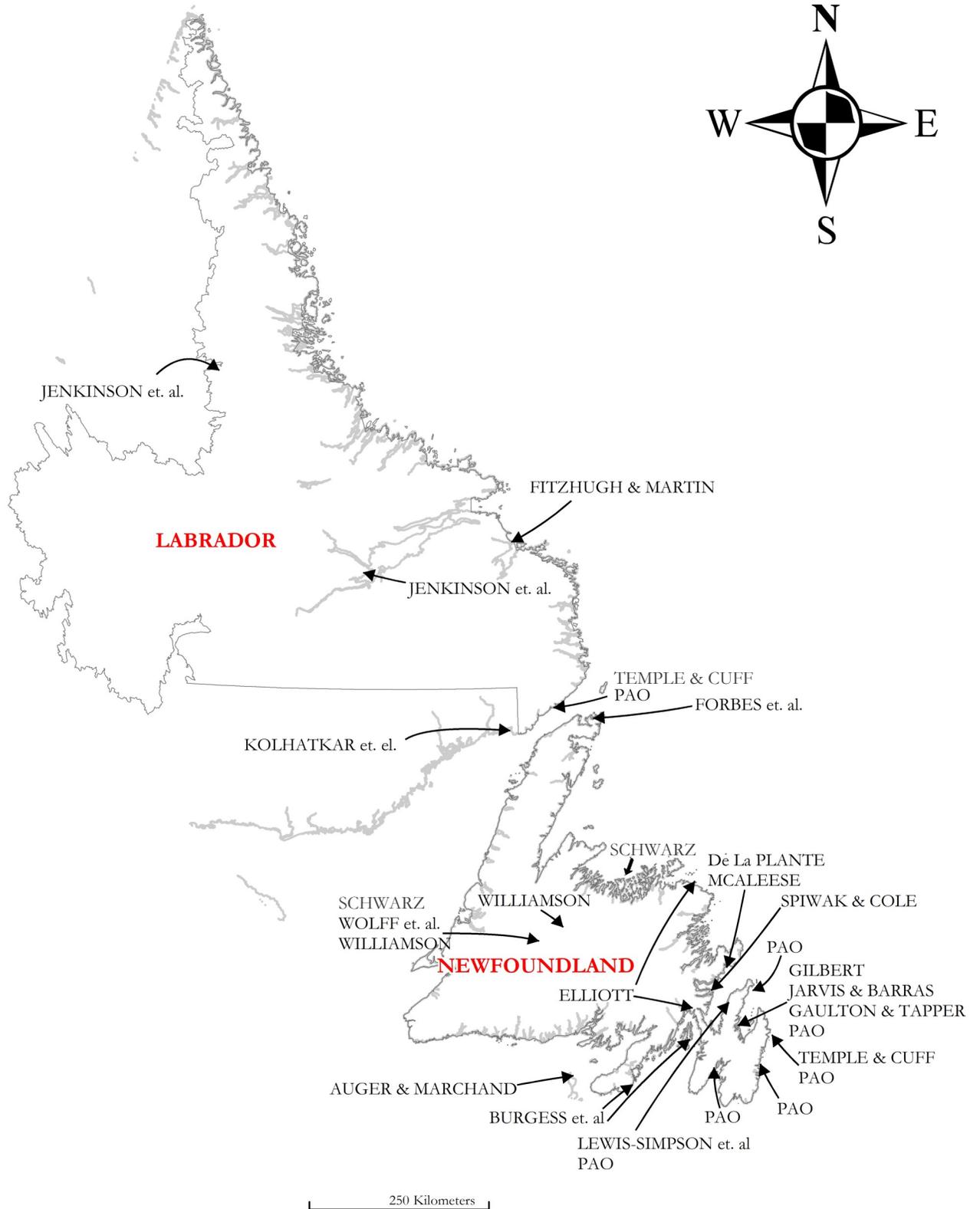


Cover: Large gearwheel on USS Pollux wreck.
See Burgess, Neil M., Ken W. Keeping & Kirk Regular, this volume
photo: Christopher Power, @CJPowerPhotos

Stephen Hull
Delphina Mercer
Editors

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ARCHAEOLOGY IN NEWFOUNDLAND AND LABRADOR 2020



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Summary of the 2019 archaeological interventions at Saint-Pierre et Miquelon

Réginald Auger & Grégor Marchand
 Université Laval & Université de Rennes

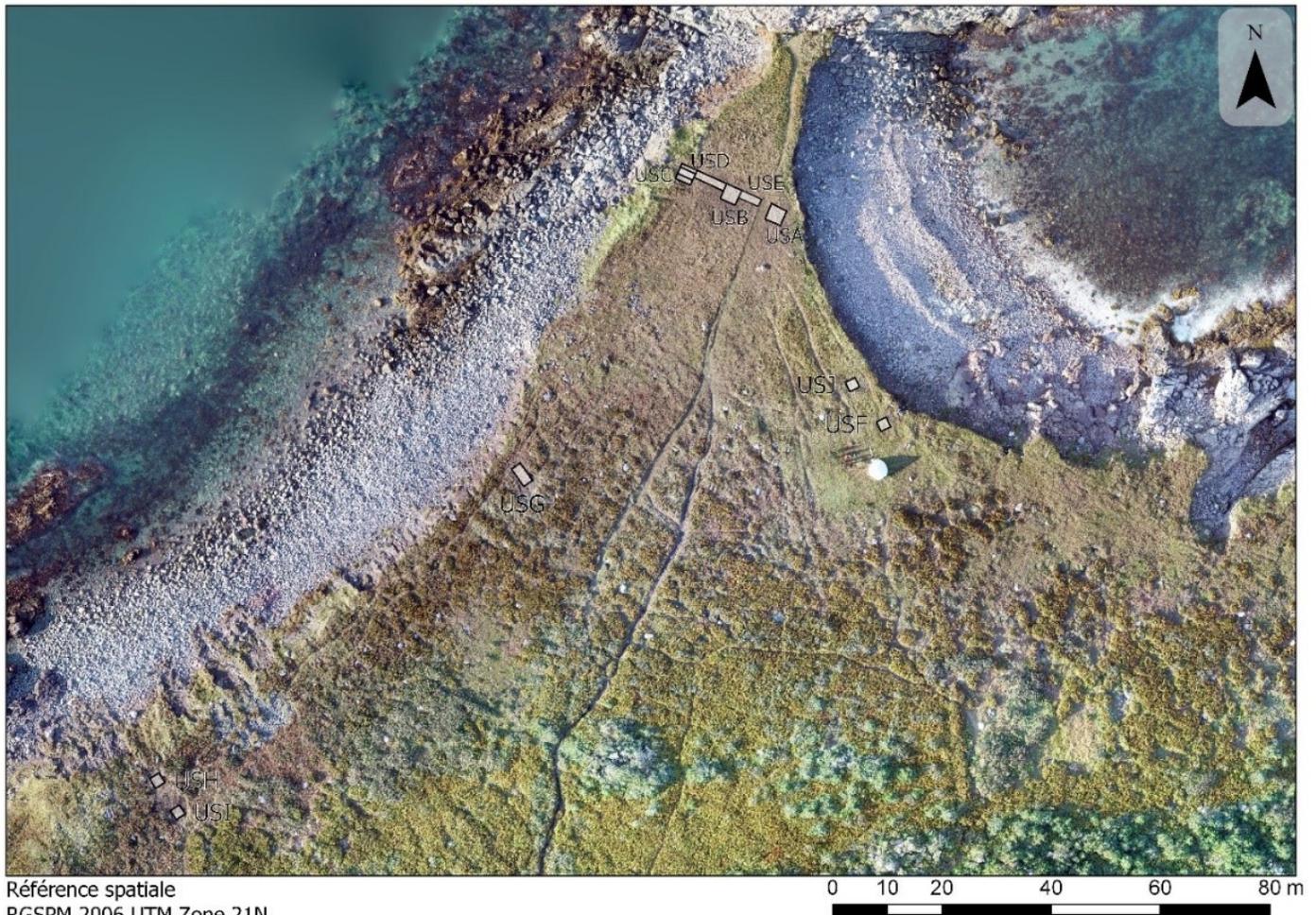


Figure 1: Aerial view of the Anse à Henry site with the location of test units.

Our first year was an exciting year and our team made of ten people, half-and-half from France and Quebec worked for five weeks; the last being plagued with poor weather conditions, we devoted most of that week to cleaning, classifying and analysing the material, which, we left in storage at Musée l'Arche in Saint-Pierre.

Our interventions focused on the areas of the site that are most threatened by coastal erosion, namely, the narrow isthmus near the Rocher de la

Vierge and the area between the isthmus and the brook that comes out at the west end of the site where Sylvie Leblanc had concentrated most of her collection (Figure 1, bottom left). It was not easy to come after the four years that Leblanc spent at the site and link our intervention to her interpretations. Nonetheless, we managed to develop our understanding of the Anse à Henry site history. Due to the dynamics of the site formation and the length of time the site was occupied, we had difficulty to grasp all its complexity.



Figure 2: Flat stone feature at Anse à Henry site interpreted as *grave* (fish flakes).

As for the planned archaeological prospecting for new sites, we could not go to Miquelon as much as we wanted, however, a few sites were discovered on Miquelon and an important quarry was located on Saint-Pierre.

Highlights of the 2019 season

1 - In the lower part of the Anse à Henry site, immediately to the south of the Rocher de la Vierge, we discovered an extensive feature made out of flat rocks all assembled in a leveled surface. The artefacts found at the surface of that feature indicate that it dates from the historical period (19th century). It seems to be what is called locally a *grave* (fish flake), a *grave* is used for drying cod and unlike the flakes made of wood that we find in Newfoundland, in Saint-Pierre they used flat rocks. That *grave* (Figure 2) was built on an old layer of dead vegetation about 15 cm thick.

The 15 cm thick decomposed sod layer on which the *grave* was built covered an ancient archaeological level incredibly well preserved with lithic flakes, finished tools and charcoal. Our initial assessment of the lithic assemblage suggests that we have a Palaeoeskimo Groswater component (-800 to -100

BC). Three charcoal samples were submitted for radiocarbon dating.

2 – The other sub-operations located in the west part of the site were opened near the excavations carried out by S. LeBlanc and J.-L. Rabottin at the beginning of the 2000s. The pits that we opened show the active geomorphological dynamics of the slope where the site sits. The colluvium weathering - and especially the action of “ploughing boulders” – that are on the slope have largely degraded the prehistoric habitats which yielded an abundant lithic assemblage. We recovered from that part of the site material culture from several groups including the Maritime Archaic, the ancestors of the Beothuk as well as the middle Dorset (Figure 3).

3 – We set up a three-year component for the monitoring of coastal erosion under the supervision of Pierre Stéphan (University of Brest) and Maureen Le Doaré (geographer). We secure the collaboration of the DTAM, which will do a LiDAR coverage of the site three times a year to follow the evolution of erosion. DTAM’s contribution will provide a precise and quantitative assessment of the ero-

sion rate, including the strong colluvium dynamics on the west part of the site.

4 - Prospections to find sources of raw materials and new historic sites were carried out throughout the project, by Cédric Borthaire, Max Pallares, Maureen Le Doaré, Gregor Marchand and Réginald Auger. Two lithic sources have been identified, including that of Bois Brûlé on the northwest shore of Saint-Pierre. It is a major quarry site, littered with thousands of lithic debris and rough bifacial blanks. A large number of the stone tools found at the Anse à Henry site could originate from that source. Two one-day visits to Miquelon confirmed the presence of four shell middens located on the northern part of the Grand Barachois (Figure 4), an old farm on Pointe aux Cacaouis and fishing facilities at a place called Le Boyau located north-west of the village of Miquelon. Surveys in Miquelon were based on



Figure 3: A selection of artefacts from the Anse à Henry site.

Maureen Le Doaré's analysis of LiDAR data.

Prospective

Our priority for 2021 will be to excavate a large area in the lower zone of the Anse à Henry site to better understand the nature of the modern occupation by fishermen and explore the well-preserved Palaeoeskimo (Groswater) component underneath. In addition to the salvage of an area that is bound to disappear in a near future due to erosion caused by storm waves, a research based on the principles of paleo ethnography

Figure 4: Shell middens located on the north shore of the Grand Barachois.



would be original for the North American continent. The shallowness of the occupation layer will make this excavation relatively easy once the coriaceous surface turf is removed. We also plan to go back to the western part of the site affected by surface erosion, however, it will be necessary to identify and focus on areas that have been spared from the geomorphological processes at work.

In addition to the pursuit of excavation at the Anse à Henry site, we will also continue to survey for new sites on the archipelago in order to document the history of peopling of Saint-Pierre et Miquelon.

Should that aspect of the project interest you, namely, the Mi'kmaq presence in Miquelon, we would be willing to look for money to hire a person to do oral history research.

References

2020 « Prospection et inventaire de l'archipel Saint-Pierre et Miquelon 2019 », Rapport déposé au Service régional de l'archéologie de la Bretagne, France, Auteurs : Réginald Auger, Grégor Marchand et Maureen Le Doaré

2020 « Rapport final d'opération de fouilles programmée : Le site de l'Anse-à-Henry, Saint-Pierre, Saint-Pierre et Miquelon », Rapport déposé au Service régional de l'archéologie de la Bretagne, France, Auteurs : Réginald Auger, Grégor Marchand et Lolita Rousseau avec les collaborations de Alexandre Naud, Maureen Le Doaré, Laurent Quesnel et Pierre Stéphan.

Publication:

2020 Grégor Marchand, Réginald Auger, Maureen Le Doaré, Lolita Rousseau, Pierre Stéphan, « Préhistoire de l'archipel de Saint-Pierre et Miquelon : les occupations humaines de l'Anse-à-Henry à l'épreuve de l'érosion littorale », *Bulletin de la Société préhistorique française*, Tome 117, numéro 2, 349-351.



Provincial Archaeology Office Fieldwork 2020

Jamie Brake, John Erwin, Stephen Hull & Delphina Mercer
 Provincial Archaeology Office

Despite the logistical challenges presented by Covid-19, which included working from home, the Provincial Archaeology Office (PAO) reviewed 1865 land use applications, issued 34 archaeological permits and four Palaeontological permit applications in 2020. For a breakdown of the numbers over the last 10 years, see the table below. The PAO also supported ten Directed Research Projects in 2020. These included: drone mapping of the Sunnyside Cable Station (Elliot this volume), and Heart’s Content shore end cables; the creation of a database of Underwater Historic Resources around the Island of Newfoundland; archaeological field surveys of Costigan Pond and Charles Brook Pond (Schwarz this volume); the testing of a bone midden on South Penguin Island (Elliot this volume), a review of research potential of the Saddle Island West Recent Period Indigenous collection; and desktop surveys of Hare Bay on the Northern Peninsula, and the South Coast of the Island of Newfoundland.

Policy Update

Our office also reviewed some of its procedures and policies regarding permitting and regulations. In this regard, the PAO would like Permit Holders to be aware that we will be enforcing requirements of the Permit Regulations relating to the submission of field notes and photographs, electronic copies of both will be sufficient. These records provide important information for understanding and managing Newfoundland and Labrador’s historic resources. The office will

also be requiring the submission of a conservation plan for any project involving excavations that are likely to result in large amounts of iron requiring conservation. Finally, graduate students should be aware that any equipment purchased with funding issued through the PAO Research Grant program is to be returned to the PAO upon completion of the research project.

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## PAO Fieldwork

Despite a late and somewhat restricted start to field activities due to Covid-19, the PAO conducted several field surveys and preliminary assessments. This work was conducted in Southern Labrador, St. Mary’s Bay, Gander Bay, Heart’s Content, Brigus South, Harbour Grace, Lower Island Cove, Blackhead and Brigus.

### Southern Labrador 20.20

#### Background

On July 30<sup>th</sup>, 2020, the PAO was contacted about ground disturbing activities taking place in Red Bay which were having an impact on known historic resources at the Red Bay East archaeological site (EkBc-17). Red Bay East has Basque, French and Indigenous components and was a highly important whale processing site throughout the entire period of Basque whaling activities in Labrador (Tuck 2005). Concerned residents of Red Bay contacted the archaeology office to inform us that heavy equipment was being used to move a shed at the site and to prepare land at the waters edge there for the construc-

2020 Referrals

| Type of Land Use Applications by year    | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| Crown Land                               | 1559 | 2046 | 2178 | 1818 | 1774 | 1466 | 2542 | 1813 | 1605 | 1217 |
| Environmental Assessment                 | 27   | 60   | 51   | 40   | 54   | 48   | 73   | 48   | 68   | 51   |
| Mineral Exploration                      | 214  | 288  | 213  | 301  | 285  | 339  | 355  | 354  | 371  | 380  |
| Quarry                                   | 242  | 243  | 217  | 306  | 455  | 618  | 207  | 150  | 120  | 131  |
| Aquaculture                              | 7    | 10   | 10   | 7    | 8    | 1    | 1    | 23   | 4    | 10   |
| ILUC                                     | 44   | 60   | 39   | 38   | 45   | 71   | 51   | 33   | 30   | 44   |
| TCAR/ACOA Proposals                      | 3    | 6    | 3    | 2    | 5    | 3    | 1    | 0    | 2    | 21   |
| Roads & Water and Sewer Plans            | 33   | 20   | 21   | 35   | 13   | 9    | 36   | 29   | 16   | 1    |
| Other Projects                           | 20   | 17   | 15   | 10   | 10   | 8    | 7    | 2    | 0    | 4    |
| Zoning Regulations (Service NL)          | 0    | 0    | 0    | 0    | 4    | 2    | 0    | 0    |      | 4    |
| Atlantic Canada Certified Sites Programs |      |      |      |      |      |      |      |      |      | 2    |
| Total                                    | 2149 | 2750 | 2747 | 2557 | 2653 | 2565 | 3273 | 2452 | 2216 | 1865 |

tion of a wharf. Photos were provided via email showing disturbed areas at the site and visible artifacts that had been impacted by heavy equipment, particularly red Basque roofing tile in the area that the shed had been moved from which was being prepared for the installation of wharf cribbing. No information on these developments had been provided to the PAO through the Town of Red Bay or any other agency.

Because of the correspondence from concerned community members a stop-work order was issued, communication with the developer and the Town of Red Bay was initiated, and an emergency

Canada archaeologist John Higdon who happened to be visiting Red Bay for other reasons in late September.

**Field Results**

Fieldwork took place in southern Labrador on August 18<sup>th</sup> and 19<sup>th</sup> and involved visits to two known archaeological sites in Red Bay, as well as assessments of two additional areas within the community where historic resources were not found. It also involved meetings with the proponent, the Red Bay Town Council and Parks Canada to discuss the situation. Extensive impacts were documented in the area adjacent to and around the shed, and along the shore at

**Figure 1: Impacts of earth moving at Red Bay East in 2020. The Basque whaling harpoon head, inset at right. The artifact is 160 mm long, and 82 mm wide.**



visit was undertaken to assess damage to the site and to determine next steps. During that visit, the PAO was assured that no further ground disturbing activities would be undertaken at the site, and methods for moving the shed and completing the wharf without affecting the ground, perhaps by using fill around the site were suggested. However, on September 9<sup>th</sup> we were contacted by the developer who indicated that he had uncovered a Basque whaling harpoon head (Figure 1) while digging postholes for his shed. He agreed not to do any further digging and arrangements were made for a second assessment by Parks

the location of the proposed wharf development (Figure 1). Impacts of coastal erosion on Basque try-works that had been exposed at the site by archaeologists in the 1980s were also recorded. The developer, who was present throughout the visit, insisted that no archaeological testing be undertaken because no further ground disturbance would be taking place at the site.

A site known as ‘Cemetery’ (EkBc-03), an early Maritime Archaic site on a raised beach terrace on the north end of Red Bay, was visited first. The purpose of this visit was to assess site condition, as it

had not been visited since 2003 when salvage excavation was undertaken because of the impacts that all-terrain vehicles were having on it. Surface inspection indicated that EkBc-03 remains in the same condition as it was when last visited by archaeologists, and ATV use there does not seem to have gone beyond the trail where mitigation measures have already been undertaken.

Despite the importance of Red Bay East, no site plan identifying the locations of previous survey work, testing, or the locations of known features were found in records from previous work at the site. Photos of features that had been previously excavated at the site are available, however, documentation showing their locations within the site or in relation to each other have not been found so far. The August 2020 site visit provided an opportunity to walk the site with two local Parks Canada staff members who had been on the 1980s excavation teams there and to create a site plan based on surface indications of archaeological features, personal recollections of fieldwork at the site, and on recently disturbed archaeological materials. It also allowed for the documentation of remediation work, which involved the use of sods and fill, but which had not previously been mapped. That work was done in 2009 to slow the impacts of coastal erosion at the site. The creation of this basic record of the site itself and of previous work and disturbance is essential for understanding and managing historic resources at Red Bay East. This information also greatly simplified preparations for John Higdon's September assessment.

During the September site visit, Higdon excavated 2 test pits in the vicinity of the proponent's shed, one adjacent to the post hole from which the Basque harpoon head had been collected, and one near the west end of the shed. The purpose of this work was to determine whether undisturbed archaeological stratigraphy was present in this part of the site. The work demonstrated significant soil disturbance associated with archaeological excavations that took place in the 1980s and the mixture of cultural materials from different times. However, this did not eliminate concerns for historic resources because of the significance of some of the material culture known to be present (like the Basque harpoon head), as well as the likelihood of intact archaeological features that may have been exposed but not dismantled in the

1980s. Considering the recognized universal significance and world heritage status of the Red Bay archaeological site complex, all stakeholders need to work together to effectively ensure that the integrity of the archaeological record is maintained, as outlined in the Red Bay UNESCO World Heritage Site Management Plan.

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St. Mary's Bay 20.22

Background

St. Mary's Bay was used and occupied by Europeans since the early 16th century, and questions remain about Indigenous use of the bay. Some researchers, for example, have argued that the Beothuk did not use the area; however, they are known to have been present historically in adjacent regions, including Trinity Bay, Placentia Bay and in Ferryland. Indigenous artifacts were also apparently found at or near the mouth of the Colinet River, according to a passing 19th century reference by Howley (1915; Penney 2007).

There has been relatively little archaeological survey work conducted in St. Mary's Bay, in fact large areas have never been visited by archaeologists and much of the human history of the area has not yet been the subject of scholarly attention. In 2007, the PAO had a desktop assessment conducted of the archaeological potential of the area through its Directed Research Program (GPA 2007). Prior to that, archaeological activity in that bay was limited to an underwater salvage project led by Roy Skanes at Point Lance (Skanes 1990), an investigation of the St. Mary's Battery and the recording of a nearby shipwreck (PAO Archaeology Sites inventory). Since 2007 Gerald Penney conducted a survey near the mouth of the Colinet River (GPA 2009), Anatolijs Venovcevs completed graduate research on 19th century European sites on the east side of the bay (Venovcevs 2017), and Robyn Fleming has recovered a large Indigenous chert core from the shore of a saltwater pond on the east side of the bay.

In the late summer and fall of 2020, Jamie Brake acquired a permit to undertake archaeological survey work near North Harbour.

Field Results

Field activity took place on August 25th and involved a visit to Cape Dog Cove, southwest of North Harbour, via a very challenging trail through forests and

over marshes. Only the east side of the cove was surveyed. About half of the approximately 7 kilometer trip from the highway to the cape was undertaken by dual-purpose motorcycle, the machine eventually being parked because of difficult conditions, and the remainder of the journey was done on foot. Although the distance was not great, the difficult trail took more than an hour and a half of travel time in each direction on a dry and sunny day, even using the motorcycle for half of it. In very wet conditions, it may be difficult or impossible to reach the cape by this route.

A pretty beach at Cape Dog Cove is sandy along the eastern side and a cobble barachois along

finned earthenware.

A stone foundation was recorded about 115 metres further along the shore on a high bank overlooking the cove. No material culture was observed on the surface, but a piece of stoneware was found on the eroding bank directly in front of the archaeological feature and less than 3 meters away.

Historical records for Cape Dog show that immigrants from Ireland settled the area in the early 19th century. James P. Howley, who first visited the cove in 1868 on a geological expedition, stayed with an elderly man named Tom Ryan, who had come from Waterford and knew Howley's father and other relatives (Howley 2009:85). Census records provide



Figure 2: Looking east at Cape Dog Cove.

the centre of the cove separates the ocean from brackish pools fed by brooks flowing into the area from the north. The east side of the cove shows signs of human occupation that are obvious even from a distance, the main one being a large grassy meadow produced by forest clearing and probably cultivation (Figure 2). The meadow contains at least one archaeological feature that is visible from the surface: a shallow depression, roughly 20-30 cm in depth, with a roughly circular surface expression measuring approximately 4 meters in diameter. A test pit in the center of the depression produced small square nails, green bottle glass fragments and four sherds of re-

data from 1835, 1845, and 1921 though the information from 1835 combines North Harbour and Cape Dog making it impossible to say with certainty how many people and how many dwellings were located within the study area at that time. In 1845, it is clear that there were 17 people living in two dwellings at Cape Dog. By 1921 there were just two people living there (GPA 2007:22). Gerald Penney Associates Ltd. states that "Three structures on the east side of the cove can be located with precision" (2007:22), presumably because they are shown on a British Admiralty survey undertaken in that year which informed subsequent charts that are frequently refer-

enced in the GPA report. Archaeological evidence recorded at Cape Dog Cove in 2020 fits with a 19th century occupation and it is likely that the features recorded in 2020 relate to the use of this area by Irish Settlers and their descendants, some of who continue to live in North Harbour today.

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## **Gander Bay Permit 20.11**

### **Background**

Historical references and oral history indicating a Beothuk presence in the Gander Bay region persisting well into the early 19<sup>th</sup> century provided the impetus for Jamie Brake to spend some holiday time conducting surveys with his parents who live in the area and know it very well. Previous Beothuk-related archaeological activity in the area is quite limited. Helen Devereux tested one possible Beothuk site in Gander Bay in 1965 and Ralph Pastore and Clifford Evans surveyed portions of Gander River and Gander Bay in 1979. Pastore later visited a site near the mouth of Gander River where a Federal Department of Fisheries and Oceans officer had collected artifacts in 1998, and in 2009, Ken Reynolds briefly revisited the site that Devereux had tested years earlier.

Devereux's field activity in the area took place in 1965 and was limited to testing a single circular depression measuring about 20 feet in diameter on the property of Arthur Hodder, then in his 80s, who believed the feature was a Beothuk housepit based on family tradition. The Hodder family has been in possession of this land as well as nearby Salt Island for more than two centuries because of an 18<sup>th</sup> century land grant (Devereux 1965). Testing produced only European materials and Devereux concluded that the site was not Beothuk, and that it had "...no potential for archaeological investigation" (1965:9). However, a handwritten note, initialed by Devereux at the end of the section dealing with this site in her report states "In light of subsequent experience, I am inclined to think this may be a housepit" (1965:9). Detailed work on the housepit has not been conducted since then, though Ken Reynolds did briefly visit the site without testing it in 2009 and was unsure if the feature had been destroyed by recent house construction (Reynolds 2009).

Ralph Pastore and Clifford Evans surveyed Gander River from Gander Lake to Gander Bay, as well the east side of Gander Bay as far as Frederick-

ton in 1979. Nearly a week was spent on the river, but the survey in Gander Bay, including work on three islands, was all done in one day. Based on this work the two authors wrote "...we wish (rather tentatively) to state that we do not believe the Gander River to be very promising for future archaeological investigation" (1979:9). Included in their report is a map showing surveyed areas, however, a fisheries officer later brought an important 18<sup>th</sup> century site near the mouth of the river (see below) within their survey area to the attention of the PAO. This demonstrated that the river does have potential for significant historic resources.

Based on their work in the bay, Pastore and Evans concluded that "It may well be that the majority of Gander Bay's aboriginal sites have been destroyed by white settlement. If this is the case, then Gander Bay also does not appear promising for further archaeological work" (1979:10). However, it is important to note that this conclusion was based on a survey of a vast area (all of the east side of Gander Bay, including 3 islands) in the space of a single day. Furthermore, the authors were clearly aware of Helen Devereux's work in the area but did not mention the Arthur Hodder site or its research potential. It is possible that they were not aware of Devereux's later thoughts on that site, but in any case, they did not mention it or explain why it is not considered.

In 1998, a DFO official made collections at a site near the mouth of Gander River at a place known locally as Summer Houses. The site is known to residents of the area as a historic salmon fishing station and the remains of rack works used to corral fish, still referred to by people from the area as 'the works', are visible in the river adjacent to the terrestrial site. A skeletal record for this site was included in the PAO archaeological sites database, but there were numerous problems with it. For example, the location was incorrect; putting it on the wrong side of the river, and it was unclear whether archaeologists had ever visited the site.

Communication with Lori Temple at the Rooms led to some clarification on the early history of research at Summer Houses. Catalogue records there show that Pastore did some testing at the site in 1998 and collected artifacts at that time. In early December of 2020 an envelope was found amongst Pastore's records at the PAO that contains an archaeolo-

gy permit that he held in 1998 (98.30), as well as some correspondence between Reynolds and Pastore from 2000. The latter includes an indication that the site had not yet been registered, as well as a request for information on the location of the site. The envelope also contains a few photos of historic artifacts, presumably taken by Pastore that show material from Summer Houses. The site was subsequently registered, but the location was incorrect, as mentioned above.

Using the permit number we were able to

Pastore also indicated that he wished to visit the site in early September of 1998 and he applied for, and received, a permit to do so.

Additional information was discovered in a box of Pastore's papers at the PAO in mid-December which contained a few pages of field notes from his 1998 site visit, as well as a site plan and photo descriptions. These notes, along with the records discussed above have provided us with a clear understanding of the earliest professional archaeological activity at this important site. We now know that Pas-



Figure 3: Looking northeast at Salt Island from the Gander Bay causeway.

track down some relevant correspondence from late August and Early September of 1998, which includes remarks that Pastore made about artifacts from the site after viewing the artifacts collected by the DFO official: “They are clearly late 17<sup>th</sup>/early 18<sup>th</sup> century European and the bones are pig. From the location and the date of the artifacts, this site could well be a salmon-fishing premises owned by George Skeffington in 1718-1719” (Permit file 98.30, PAO, September 1<sup>st</sup> email from Ralph Pastore to Martha Drake).

tore tested the site and excavated a 4 x 4 meter area there on September 13<sup>th</sup>, 1998. He also drafted budgets for the cost of fully excavating the site, which suggests that he thought it was important.

Historic records and oral tradition suggest a Beothuk connection to Summer Houses. In the late 1970s, Brett Saunders, who was in his 80s at the time, told the following story, as documented by his son Gary:

“My mother told me the story more than



**Figure 4: A Brett Saunders photo of ‘the works’ published in Gary Saunders’ book *Rattles and Steadies* (1986:129). The caption reads: “At tidewater on the Gander River is this place called ‘the works’. During low water like this you can see traces of a ‘rakeworks’ or rock barrier built from shore to shore with a gap through which the migrating salmon passed. It is likely the Beothuk constructed it for a spearing place. The settlers took it over and added a pound and gate so they could dipnet the fish into their punts. One day while doing this Robert Gillingham Sr. and his men were ambushed by the Beothuk and one of the crew was beheaded” (Saunders 1986:129).**

once. Her great-grandfather Robert Gillingham Sr. and a crew of fishermen had been dipping salmon out of their “rakeworks” or rock weir near the mouth of the Gander River, when a party of Beothuk braves burst out of the woods and attacked them, killed one of the men, and ran away with his head” (Saunders 1986:21-22).

In light of post-1979 discoveries of historic resources on Gander River by members of the public, Devereux’s belief that the pit feature at the Arthur Hodder site may be a Beothuk dwelling, and the significance of Summer Houses and the works, additional survey of Gander River and Gander Bay is certainly warranted.

### **Field Results**

Salt Island was visited on June 24<sup>th</sup> and at that time the historic cemetery and the original Hodder homestead were recorded. Most of the island was walked over and cultural materials and features were recorded using a digital camera and a handheld GPS (Figure 3). Old family photos show a house owned by the Hodder family built in the early 19<sup>th</sup> century still standing on the island in the 1970s. The house appar-

ently burned in the 1980s. The island was granted to the Hodders, along with adjacent land on the east side of the bay in the 1700s. The Arthur Hodder site is within this parcel, which is still owned by the Hodders to this day.

A review of photos taken by Ken Reynolds in 2009 at the Arthur Hodder site, and a comparison of those images with a site plan made by Devereux in 1965 seem to indicate that the possible Beothuk housepit there has not been impacted by recent house construction, despite Reynolds’ belief that it was “probably destroyed” (Reynolds 2009:1).

Allan and Joycianne Brake visited the Arthur Hodder site in July of 2020 with descendants of Arthur Hodder who live there today. One family member was a young child when Devereux visited this property and was actually present when she tested the pit feature. He was able to immediately point out its location, and though the feature itself was not obvious, an adjacent mound, possibly a back-dirt pile, was clearly visible. The pit was apparently carefully avoided over many years during vegetable gardening and house construction. If the remains of a Beothuk dwelling have survived in the archaeological record

here, it is due to the efforts of the Hodder family who have protected it for generations, despite being told more than 50 years ago by an archaeologist that it was not a Beothuk structure. For this, the Hodder family deserves recognition and gratitude. We hope to return to the site in 2021 to conduct archaeological testing.

In September of 2020 Allan Brake and Jamie Brake visited Summer Houses via canoe from Gander Bay, paddling and hand-lining around Casey’s Island and then quickly crossing the river just south of Summer Houses, landing at ‘the works’ (Figure 4). According to local people, the works are historic rack works, and visual inspection supports this tradition. The local story is that there was originally a Beothuk fish weir at this location that was taken over and added to by Europeans (Saunders 1986: 129). Whether or not this part of the story is accurate could probably be tested archaeologically.

We initially tested the obvious clearing a little to the north of the site and found nothing but very recent trash. Then, working in an older, largely overgrown clearing closer to the works we found rich archaeological deposits in the two test pits we dug there, and recorded low mounds, likely indicating walls of structures. The test pits produced faunal remains, botanical material, kaolin pipe fragments and square nails and revealed some sheet metal, all in undisturbed contexts (Figure 5). Large square nails and

charcoal were observed in a tree throw there as well.

Using a metal detector, we estimated the size of the site at 35 m e-w x about 50 m n-s. We also recorded three evenly spaced old square holes in a row that had been re-sodded, which correspond with Pastore’s 1998 test pits. We were unaware of his 4 x 4 meter excavation area during the time of our visit and fallen trees and new growth obscured our view of that part of the site. With his site plan and photos in hand, it should be no problem to relocate the 1998 excavation area.

Two nails that we found, one without a head, have flattened tips that we initially thought might have been modified, potentially by the Beothuk. However, we have since noted that nails, some headless, were made with flattened tips like this (see Hume 1991:253), and we now assume that they were probably like this when they were originally brought to the site.

Based on our 2020 site visit we have concluded that Summer Houses is in good condition and has excellent research potential.

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Heart’s Content Cable Station

17.34, 20.19 & 20.34

Introduction

The first permanent transatlantic cable telegraph was established in 1866 between Heart’s Content, New-

Figure 5: Artifacts, faunal and botanical material found in Test Pit 1 at Summer Houses.





Figure 6: Exposed cable locations and ruin features.

foundland and Valentia Island, Ireland. As a hub of international communication, the Heart's Content Cable Station operated until 1965, after which the cable station building (constructed in 1875 and extended in 1918) was designated a Provincial Historic Site (PHS) and has operated as a museum and interpretation center since 1974. Added to Canada's tentative list of UNESCO World Heritage Sites in 2017, the Heart's Content/Valentia Cable Station ensemble is also part of a continuing trans-national effort to add the Valentia Island cable story to Ireland's World Heritage List, and to seek UNESCO World Heritage status.

Since 2017, the Provincial Archaeology Office (PAO) has conducted surveys under permit Nos. 17.34, 20.19 and 20.34 of the adjacent shoreline, where partially buried sections of remnant cables and stone ruins are preserved (see Figure 6). While the location of the cables associated with the 1875 Station (at Location 1) was previously well known, the cables associated with the earlier 1866 station came to light in 2017 and in 2020 at Locations 2 and 3 respectively. This report is a summary of the PAO's work at

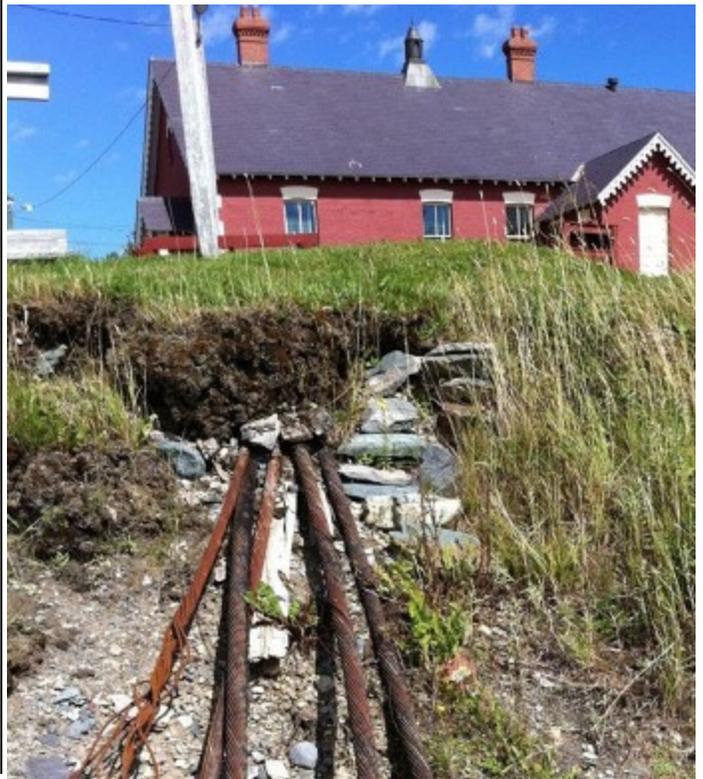
Heart's Content since 2017, and serves as background for the archaeological site designation (CIAi-13).

In summary, investigations by the PAO in 2017 under 17.34 consisted of the documentation of a portion of exposed cables at Location 2. This work consisted of metal detection and the excavation of test pits to locate the extent and direction of the buried portions of the cables. The cables at Location 2 appear to be disturbed by road construction and re-buried along the roadside. In August 2020, the PAO returned under Permit 20.19 to document the location of another cable location found by PHS staff at Location 3. Based on preliminary observations of the cables at Location 2, it was concluded that they were part of the same cables documented in 2017 at Location 2, and relate to the original 1866 cable station. In November 2020, the PAO returned to document recent shoreline erosion and stabilization efforts by PHS staff at Location 1. This work included drone mapping conducted by Deirdre Elliot and Corey Hutchings in concert with PAO under permit 20.34.

History of Transatlantic Submarine Cables from 1857 to 1875¹

1857 Cable - Valentia, Ireland to Bay Bull Arm, Trinity Bay, Newfoundland. 385 nautical miles of cable laid before the expedition failed.

Figure 7: Exposed cables at location 1.



¹Adapted from: <https://atlantic-cable.com/Cables/CableTimeLine/atlantic.htm>

1858 Cable - Valentia, Ireland to Bay Bull Arm, Trinity Bay, Newfoundland. 2200 nautical miles of cable consisting of seven strands of copper wire (six wrapped around the seventh). Cable armouring consisting of 18 strands. The cable transmitted the first “official” transatlantic message between Valentia and Bay of Bulls, Trinity Bay (now known as the community of Sunnyside). The cable failed and was abandoned within three months of its completion.

1865 Cable – Valentia, Ireland to Heart’s Content, Newfoundland. 1896 nautical miles of cable consisting of one copper conductor comprising seven strands, six wrapped around the seventh. Armouring cable with ten iron wires wrapped in five strands. The shore end had 12 strands. Cable initially lost 600 nautical miles from Newfoundland. The “lost” cable end was retrieved after the successful laying of the 1866 cable.

1866 Cable – Valentia, Ireland to Heart’s Content, Newfoundland. 1852 nautical miles consisting of one copper conductor consisting of seven strands (six wrapped around the seventh). Armouring consisted of ten galvanized iron wires. The shore end had 12 strands. The 1866 cable was abandoned in

1872.

1873 Valentia, Ireland to Heart’s Content, Newfoundland. 1877 nautical miles of cable consisting of one copper conductor comprising seven strands (six wrapped around the seventh). Armouring cable with ten wires. Intermediate cable with 12 strands, second intermediate with 15 strands. Shore ends had twelve strands.

1874 Valentia, Ireland to Heart’s Content, Newfoundland. The cable used on this route is identical to the 1873 cable.

1880 Valentia, Ireland to Heart’s Content, Newfoundland. The 1880 cable replaced the 1866 cable, except that it utilized the same shore ends.

1894 Valentia, Ireland to Heart’s Content, Newfoundland. No details currently available.

Surviving Cable Fragments at Heart’s Content

The PAO has documented transatlantic submarine cables at three locations in Heart’s Content. The first is situated adjacent the 1875 Cable Station at Location 1 (see Figure 7). This location presumably contains the shore end cables for the 1873, 1874, 1880 and 1894 cables based on Bill Glover’s historical chronology of transatlantic cables. As the photo illustrates, there are five shore ends, suggesting that the fifth was for the 1866 cable (reportedly abandoned in 1872 – three years prior to the new station).

Initially documented in 2017, the cables at Location 2 were found lying partially exposed (see orange arrow in Figure 8). In an effort to determine the extent and direction of the cables, the PAO undertook a series of shovel tests with the aid of a metal detector. This resulted in the discovery of two cables buried parallel to the road at the bottom of an embankment.

The shovel tests also revealed that the depth of the buried cables at this location increased toward Location 3,

Figure 8: Cables at location 2.





Figure 9: Exposed and buried cables at location 2.

and that they lay too far below the surface to be reached by hand in the most southerly of the seven excavated test pits. See Figure 9 (A - exposed cables and B – Excavated buried cables)

Based on these initial observations, it is presumed that these two cables were the shore ends for the original 1865 and 1866 cables based on their location. While the burial alongside the road embankment was not clearly understood, it was suspected that they

were related to the road construction and the engineered embankment. A closer look at the one exposed cable at this location revealed a 12 stranded armouring, which is consistent with Bill Glover’s summary description for the 1865 and 1866 shore end cables (see Figure 10). It is noted that the Main Cables consisted of 10 stranded armouring wires according to both Glover’s “Atlantic Cables: 1856-2018” summary and Rowe (2009:32).

In 2020, PHS staff reported finding additional cables coming out of the eroding shoreline somewhere between Location 1 and Location 2. Under permit 20.19, PAO staff relocated these cables with the assistance of PHS staff at Location 3, approximately 60m south of Location 2.

As illustrated in Figure 10, there are two large armoured shore ends comparable to the 1865/66 cables alongside two smaller diameter cables. While these cables have yet to be positively identified, the larger of the two appears to be the same 12 stranded cables buried at Location 2, and as such seem to represent the location where the 1865/66 cables came ashore. However, their association with the buried cables at Location 2 remains to be verified.

Associated Structures and the Cable Terrace

In addition to the 1875 Cable Station (see Figure 11 area 12), a number of structures had been constructed that related to the Transatlantic Cable in Heart’s Con-

Figure 10: Cables at location 3.



tent, including The Cable Terrace and the Anglo-American Coal Shed (see Figure 11 areas “c” and “d” respectively). A number of other company houses were constructed over the years (see HFNL 2017 for a complete description of existing heritage structures). For the purpose of this review, only the cable terrace and the Coal Shed are discussed relative to their archaeological potential.

The Cable Terrace

Designed by a Dublin architect, and constructed in 1868-69, the Cable Terrace was a multi-unit housing block situated in front of the Anglo-American company office and served as permanent living quarters for the cable station’s staff (Rowe 2009:51). Located where the Royal Bank is currently situated. All that remains above ground is a stone wall adjacent to the Anglican cemetery (HFNL 2017:74). To-date, no archaeological investigations have been undertaken to determine, what if any, architectural remains (other than the adjacent retaining wall) or related historic resources may be preserved. Any future redevelopment of the lands that require disturbance of the lands should be subject to a historic resource impact assessment, and/or archaeological monitoring.

Anglo-American Coal Shed

Though the age of the Coal Shed is unknown, the structure is said to have been used to store coal that was shipped from North Sydney for houses of the “company men” (HFNL 2017:75). Currently still standing, the HFNL has recognized its significance in its 2017 Archaeological Inventory of Heart’s Content Heritage District. Apart from the cultural and/or architectural significance of the structure, there are like-

ly archaeological resources associated with its construction and use that lay buried beneath or in the surrounding area. As with the Cable Terrace location, any redevelopment of this structure or the nearby property should be subject to archaeological assessment and/or monitoring.

Other Observations

During the 2017 and 2020 investigations, the PAO also noted a great deal of debris along the embankment below Areas 2 and 3. While some of this material, such as asphalt looks to be related to road reconstruction, other more industrial-looking items may be related to activities related to the Coal Shed. Likewise, the PAO noted that some in-situ stone constructions eroding from the bank along the water’s edge. Although there were no obvious signs of associated cultural materials, future testing and recording of these remains should be undertaken.

Conclusions

Up until 2017, no archaeological investigations had been undertaken with regard to the Heart’s Content Cable Station and the associated properties. As a result of this preliminary work, the shoreline in the vicinity of the remnant cables has been designated

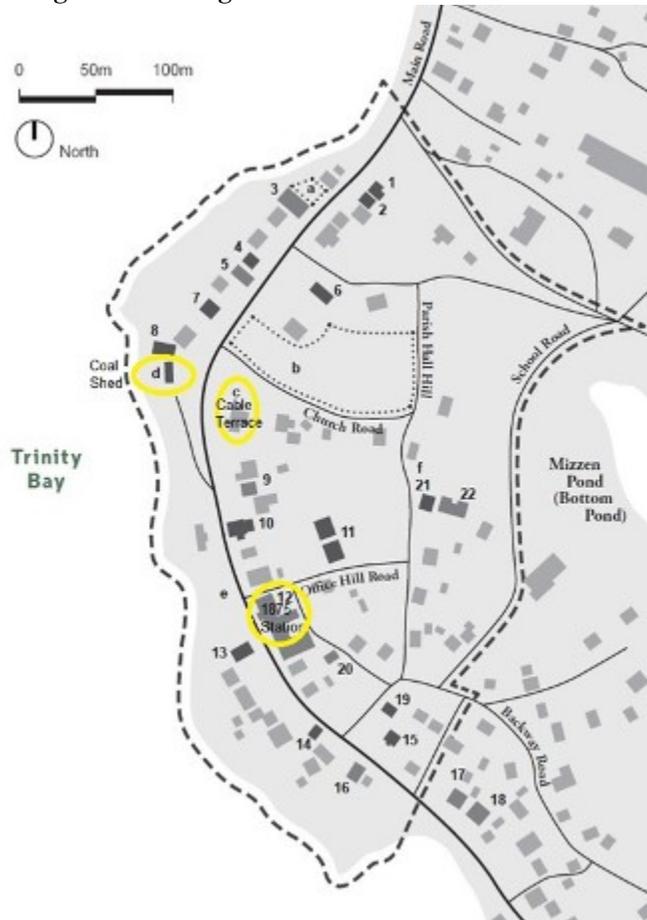
“Heart’s Content Shore End Cable” (CIAi-13).



Two New Beothuk Sites on Red Indian Lake

Two previously unidentified Beothuk sites: Sandy Point (DeBd-14) and Warford’s Brook (DeBd-15) have been added to the Provincial Archaeological Site Inventory subsequent to the discovery of a map of Red Indian Lake with annotations made by C.T. Yates (c.1968) indicating that Beothuk artifacts had been found at the mouth of Warford’s Brook and at

Figure 11: Heritage structures in Heart’s Content.



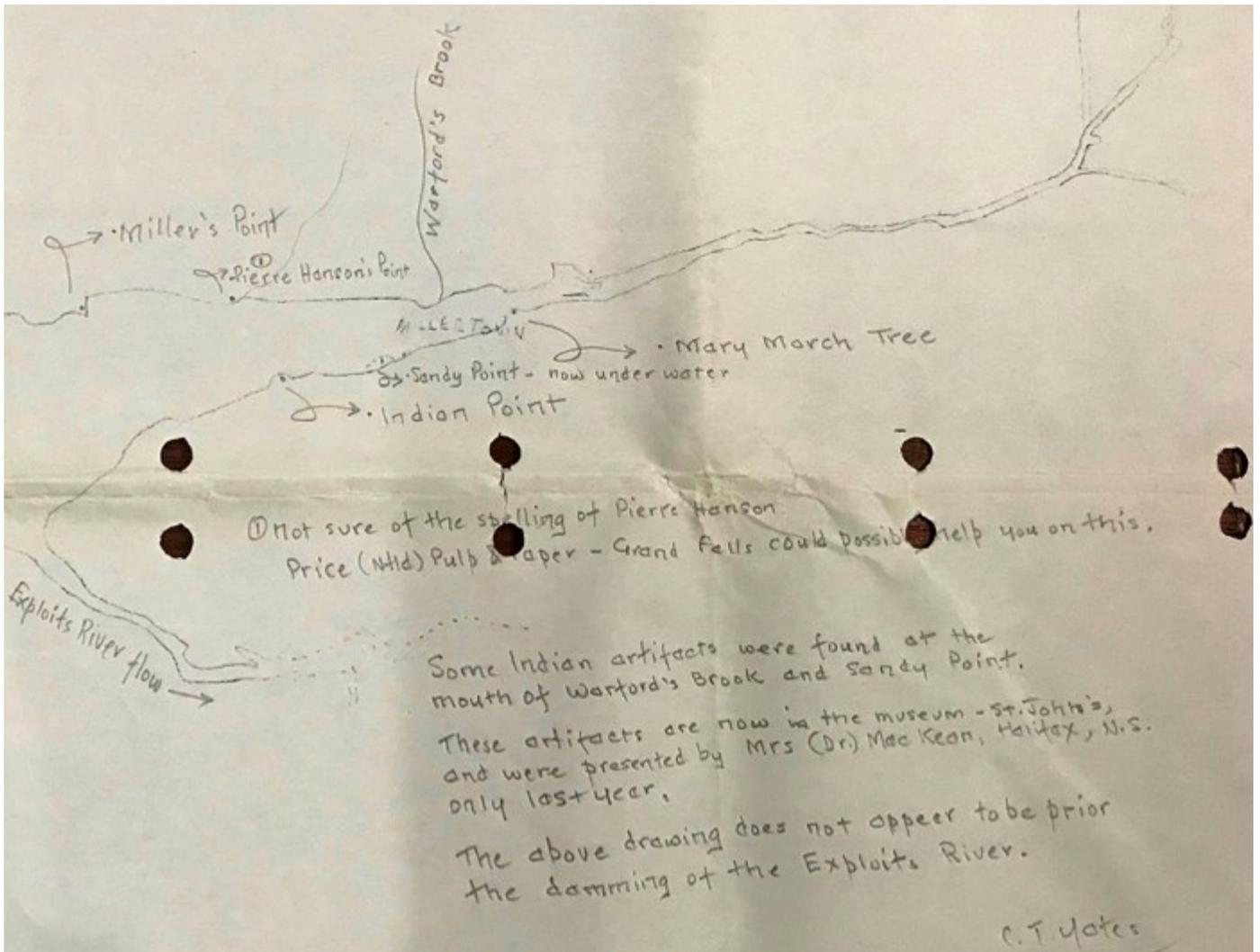


Figure 12: Map of Red Indian Lake with annotations made by C.T. Yates.

Sandy Point (Figure 12). While both of these sites have been lost due to fluctuating lake levels and the subsequent erosion, the identification of their locations is important.

Although there is no encampment explicitly identified along the north side of Red Indian Lake at the mouth of Warford's Brook by Shanawdithit's drawings, Demasduit's and Nonosabasut's Burial hut was located in the vicinity (west of Warford's Brook). While it is not believed that these objects were related to the burial, their location in this general area is not surprising in view of the Beothuk use of this end of the lake. Unfortunately, severe erosional events have taken away much of the shoreline in the vicinity of Warford's Brook leaving no doubt that this site has long been lost (Figure 13).

The area labelled Sandy Point on the Yates map generally corresponds to the general area of the

three Wigwams identified by Shanawdithit's on Drawing No. I (see below) as "Nancy's Father's Wigwam", "Mary March's Fathers Wigwam" and "Nancy's Uncle's Wigwam" (Figure 14). As the Yates map suggests, Sandy Point was underwater by the 1960s, and as such, it is unlikely that anything remains of this site. Despite the loss of both of these sites, the fact that the locations were documented is important relative to understanding Beothuk settlement patterning and the use of the interior of the Island during the later years.

The artifacts, which total 18 in number, were donated to the Newfoundland Museum in 1966 by a Mrs. McKean of Halifax who collected these objects while a resident of Millertown some years earlier (Figure 15). Her donation was made in response to an article about Shanawdithit in the *Atlantic Advocate* written by, Allan Fraser (a former Provincial Archivist



Figure 13: Erosion at the mouth of Warford’s Brook 2019.

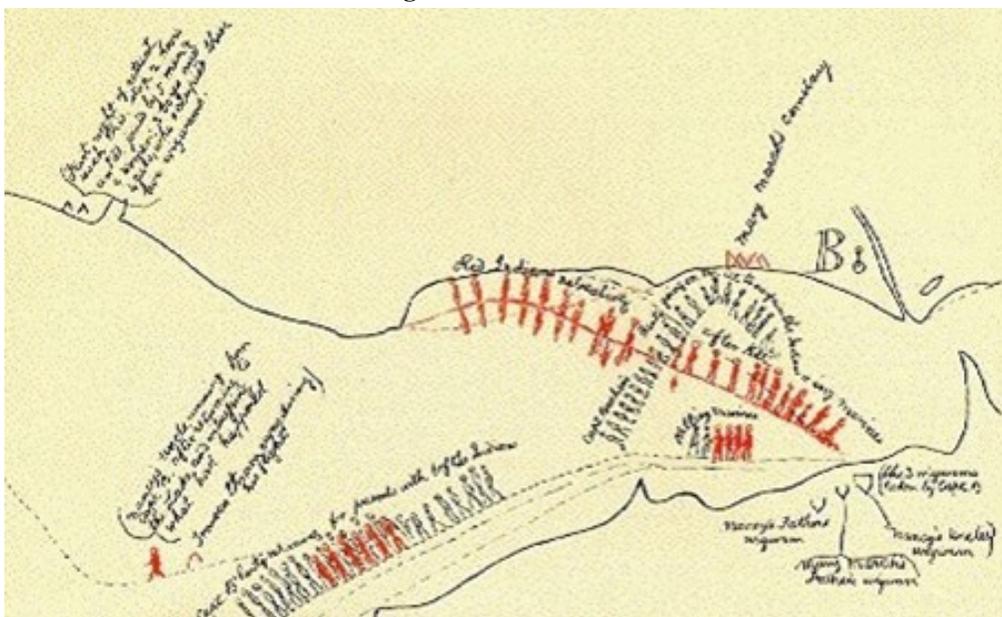


Figure 14: Excerpt of Shanawdithit drawing (Howley 1915).

Numbers as VIIIA-71 through 88, can now (after more than fifty years) be tentatively linked to two specific sites. Although we may never say for certain, which of the artifacts came from which site, (unless further provenience information is found), the new site locations add to our understanding of the Beothuk settlement in the interior during their final years of occupation around the Great Lake.

Who was Mrs. McKean?

The Yates map and the artifact accession records associated with this donation un-

and Curator of the Newfoundland Museum). In a letter dated 31 January 1966 to Mrs. McKean, Fraser noted that the artifacts had arrived safely and that in addition to being an important addition to the Museum’s Beothuk Collection, that her generous gift and her interest in the work of the Newfoundland Museum was deeply appreciated.

Collected long before there was any provincial heritage legislation, we were fortunate that Mrs. McKean made the collection, but utility of simple historic object is severely limited without exact provenance within a site. Considered as part of the General Collection from Red Indian Lake, these objects (all modified iron artifacts identified by their Accessions

fortunately do not provide much information on Mrs. McKean, other than she was married to Dr. Howard McKean, and at the time of the donation, she was living in Truro Nova Scotia. From some preliminary internet searches we believe that she and her husband had lived in Millertown sometime after 1934 –after her husband (Dr. Howard McKean) had graduated from Dalhousie University. Clues as to their association with Millertown were found in the "Personal Interest Notes" of a number of Nova Scotia Medical Bulletins (NSMB), including:

“Dr. H. R. and Mrs. McKean of Millertown, Newfoundland, are visiting Nova Scotia as part of their honeymoon...For the past num-



Figure 15: Sample of artifacts donated by Mrs. McKean.

ber of years he has been with the Anglo-Newfoundland Development Company at Millertown” (NSMB 1936:634).

“Dr. W. E. Pollett of New Germany has planned an extended postgraduate course in the Old Country...In the meantime his practice at New Germany will be taken care of by Dr. McKean, formerly practising in Newfoundland” (NSMB 1938:636).

“Dr. H.R. McKean who has been practising in Truro, has enlisted in the R.C.A.M.C. Mrs. McKean and little daughter are leaving for the former's home in Newfoundland, where they will remain for the duration of the war” (NSMB 1943:265).

“Dr. H.R. McKean, Dal.'34, and Mrs. McKean and their little daughter, Elizabeth Anne, have returned from England where Dr. McKean has been on active service with the medical corps for two years, and have taken up residence in Truro, where he will establish a practice” (NSMB 1942:139).

From publically available records we know that Dr. McKean was born in Toney Mills, Pictou County, in 1910 and that together with his wife lived in Millertown after 1934 up until at least 1938. It re-

mains uncertain, however, whether Mrs. McKean was originally from Millertown, and at what time she made the collection of Beothuk artifacts. Initial inquiries with local residents of Millertown have yet to reveal more about the McKean's connection with the community and their story.

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### Brigus South 20.13

In July, two members of the PAO spent a few hours exploring the harbour area in Brigus South, just north of Cape Broyle on the Avalon Peninsula. Earlier in 2020, members of the Brigus South Heritage group/committee contacted Heritage Founda-

tion of Newfoundland and Labrador regarding protection of stonelined roadways, old building foundations and an old cemetery in the community. The Heritage Foundation alerted the PAO to the existence of these features. A field trip to Brigus South was arranged where we met with members of each group near the entrance of the cemetery.

Since our visit, we have come to learn that former MUN Prof Gerald Pocius had recorded many of the headstones in the cemetery as part of his 1975 MUN Master's Thesis. During our brief visit, we saw many of the same headstones that Pocius noted and discussed in his thesis. He records the oldest headstone as dating to June 14, 1750 and belongs to a man

Figure 16: June 14, 1750 Yetman headstone (Pocius 1975 ) & PAO 2020 photo of the same stone.





Figure 17: August 30, 1838 Norris headstone (Pocius 1975) & PAO 2020 photo of the same stone.



Figure 18: November 1, 1778 Mary Malaly headstone (Pocius 1975) & PAO 2020 photo of the same stone.

named Yetman. We were able to see the same stone but the name was not legible (Figure 16).

Pocius also recorded the presence of three stones belonging to the Norris family. He believed the name was English and the people were Protestant



Figure 19: March 9, 1810 Elanor & Margaret Dunphy headstone (Pocius 1975) & PAO 2020 photo of the same stone.

because of text on the stone and the absence of typical Catholic decorations. Unfortunately, he only included a photo of one of the Norris stones (Figure 17).

Pocius records that the earliest Irish catholic headstone in the cemetery dates to November 1, 1778 and belongs to that of Mary Malaly (Figure 18).

Finally, Pocius noted the headstone of two children, Eleanor and Margaret Dunphy who died March 9, 1810. Based on the inscription on the stone he believed the girls were Catholic (Figure 19).

We believe the cemetery is in much the same condition as noted by Pocius in the early 1970s. The major difference is that many of the stones are now nearly illegible. The cemetery is about 60 m long by 18 m wide. We were able to count at least 18 headstones in various states from standing upright to collapsed, broken and almost completely overgrown

Figure 20: Stacked stone walls that formed the foundations of an historic road that was visible in several places in the community.





**Figure 21:** The former school is in the centre of the photo on the left. The concrete foundation of that structure is clearly visible, as is the stone wall foundation of the previous school that can be seen below the concrete (Brigus South Facebook page). The concrete foundation of the second school and the stone wall foundation of the first school can be seen in the PAO photo on the right.

with grass and shrubs. Some were formal headstones with inscribed text while others were small roughly cut pieces of stone lacking inscribed text. It is very difficult to estimate a number of burials because the ground is very uneven throughout the area. Many of these undulations could be graves with missing or buried headstones. As photographed above the oldest legible stone dates to 1750; the most recent stones date to the very early 20<sup>th</sup> century. (CgAf-22)

After the cemetery, we explored the area on the western side of the harbour where a Brigus South Heritage group member pointed out numerous areas where remnants of an historic road were visible (Figure 20). In some places, it ran through or near personal property and in other areas it clearly ran parallel to the existing road. Some portions of this road were part of the original road/path that would have

went from Brigus South to a small community to the south called Admiral's Cove. Other portions of the road were more recent having been clearly paved many years ago. We were also shown the concrete foundation of a mid-20<sup>th</sup> century school that was built over an earlier school. Part of a stone retaining wall from the earlier school is very clear. Other foundations including a potentially collapsed root cellar were noted. All of these features were in an area nearly 300 m long that ran along the western shore of the harbour stretching from the northern tip of the harbour to the main wharf (Figure 21). (01N/02 Ethno 01)

While observing the various foundations and the exposed areas of the road on the west side of the harbour, we noted a large exposed eroding bank on the south side of the harbour (Figure 22). Before leaving Brigus South, we spent a few minutes investi-

**Figure 22:** Eroding bank is visible on the right side of the photo.





Figure 23: Some of the artifacts found eroding from the bank.

Figure 24: Historic photo of the area showing it covered in flakes, stages and fishing rooms (Brigus South FB page).





Figure 25: Some of the headstones at the Bennetts Lane Cemetery, Harbour Grace.

gating this bank. We saw several pieces of iron, smoking pipe bowl and stem fragments, plenty of fish bones and ceramic fragments (Figure 23). All of the material looked to be 19<sup>th</sup> century or maybe even 20<sup>th</sup> century. No features were visible; however, the land behind this bank certainly has high archaeological potential. We believe this land may be private property so we did not access it. After returning to St. John's we found a historic photo of the area on a Brigus South Facebook page showing it covered in flakes, stages and fishing rooms (Figure 24). (CgAf-23)

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Harbour Grace 20.18

In August, a member of the PAO made a very brief visit to the Roman Catholic Cemetery on Bennetts Lane in Harbour Grace. As this was part of a personal trip the work was limited to noting the cemetery location in the town, walking through the cemetery and photographing some of the headstones.

Based on information from the town's website, it is the oldest Catholic graveyard in Harbour Grace and the oldest known gravestone dates to 1802, though there are very likely 18th century burials. During our brief walkover, we noted that the cemetery is about 30 m long by 30 m wide. We counted more than two dozen headstones, and like at Brigus South, they were in various states of preservation from standing upright to fallen, broken and almost overgrown with grass and shrubs (Although I believe in normal years the town does regularly trim the grass and shrubs) (Figure 25). Like at Brigus South there

were formal headstones with inscribed text, and in this case, visible decorations, while others were small roughly cut pieces of stone without inscribed text. It is very difficult to estimate a number of burials because the ground is very uneven throughout the area. Many of these undulations could be graves with missing or buried headstones (CkAh-44).

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**Lower Island Cove, Conception Bay Permit 20.21**

A couple who wants historic cemeteries in the town of Lower Island Cove, Conception Bay designated with Heritage Status contacted the PAO in the spring. The couple grew up in Lower Island Cove and is currently living in Mount Pearl. We explained that the PAO does not assign Heritage Status but under the Historic Resources act we can protect abandoned historic cemeteries that are no longer in use or maintained by a church. In August, we finally went to Lower Island Cove and spent part of a day exploring the area with the couple who maintained and monitored the cemeteries.

The first place they took us was to an old United Church cemetery located just off Main Street in Lower Island Cove. This cemetery was in better condition than the cemeteries in either Brigus South or Harbour Grace. It was trapezoidal in shape and approximately 40 m long and nearly 12 m wide at its top and 30m wide at its base. There were approximately 30 standing headstones dating from the late 18<sup>th</sup> century to the early 20<sup>th</sup> century; most of these had legible text. There were also several small roughly cut pieces of stone without inscribed text. As is typi-



Figure 26: Lower Island Cove cemetery on the left of the photo, the rubble pile on the right is the former building.



Figure 27: The ‘M’ & ‘N’ headstone, Lower Island Cove.

cal of older cemeteries, it is very difficult to estimate a number of burials because the ground is very uneven throughout the area. Many of these undulations could be graves with missing or buried headstones.

Just to the west, bordering the top of the trapezoidal cemetery we noted concrete walls, scattered bricks, ceramic fragments, pieces of metal and felt roofing material. We suspect that this was either a former home or maybe a church. Either way, both the material culture and concrete foundations appear to have been from the 20<sup>th</sup> century (Figure 26). (CIAf-01)

While we were recording the above cemetery, our informants told us about a single standing headstone in a grassy area ~200 m NNE of the centre of the cemetery we were standing in. The stone was a little hard to find as it is not very big and at the time of our August visit, the grass was quite high. At some point in the past the stone was broken but it is inscribed with the date of 1793 and there is some text above the date that looks like the letters ‘M’ and ‘N’ and below the date the stone reads aged 57 years.

There does not appear to be any other burials nearby (Figure 27). (DaAf-01)

After recording the ‘M’ and ‘N’ headstone our informants took us to yet another abandoned burial site ~370 m south (Figure 28). With the aid of our informants, Dale Jarvis of the Heritage Foundation of Newfoundland and Labrador had visited this small cemetery in 2018. Dale wrote an [Intangible Cultural Heritage blog post](#) about his visit describing the cemetery as:

“The cemetery sits in a windswept, barren spot, overlooking the community, and wild grasses have largely obscured the majority of the rough-stone grave markers. There is only one visible carved tombstone, marking the grave of Judy's fourth-great-grandfather, Phillip Louis. The inscription reads:

Figure 28: Phillip Louis headstone, Lower Island Cove.



08/18/2020



Figure 29: Blackhead One Room School and Church Museum

small field stone walls and structural foundations. None of these are particularly old, perhaps late 19<sup>th</sup> or early 20<sup>th</sup> century. (CIAf-02)

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Blackhead Permit 20.25

Late in August, the chair of the Blackhead Museum Board contacted the PAO regarding pending improvements, including potential ground disturbance, to the grounds of the one room school (now museum) built in 1879 (Figure 29). The Museum Board was concerned that those improvements may affect the former Star of the Sea church (built in 1861) in Blackhead, which was believed to be adjacent to the one room school site. They asked the PAO to help determine the footprint of the former church in order to help protect the site. Our search for this foundation became the basis for an [Inside Newfoundland and Labrador Archaeology](#) blog post.

In the second half of the 19th century, Bishop John Thomas Mullock had five stone churches built in Ferryland, Torbay, Kilbride, St. Kyran’s, and Blackhead. According to an article in an 1862 edition of *The Record* a newspaper published in St. John’s, Mullock attended the one-year anniversary of the dedication of the church in Blackhead in August 1862. Archaeological testing was conducted in October in Blackhead, between St. John’s and Cape Spear, at the location of what was thought to be the stone church dedicated by Mullock in 1861 (Figure 30).

The PAO found photos of the other Mullock churches in St. Kyran’s, Torbay, Ferryland, and Kilbride online (see below Figure 31). A similar construction style using almost all stone on the exterior is visible in each photo. Based on measurements in Google Earth, the church in Ferryland is approximately 35m by 12 m. The quantity of stone and mortar for each construction must have been considerable. Our limited testing in Blackhead uncovered jumbled stones, a few bricks, and some window

IN
 MEMORY OF
 PHILLIP LOUIS
 A NATIVE
 OF THE ISLAND OF JERSEY
 WHO AFTER A RESIDENCE
 OF MORE THAN FIFTY YEARS
 IN THIS PLACE
 DIED ON THE 19TH NOVEMBER 1821
 IN THE 78TH YEAR OF HIS AGE
 RESPECTED AND ESTEEMED
 FOR HIS HONESTY
 AND
 INTEGRITY
*He came to his Grave in a Full age
 like as a Shock of Corn cometh in
 in his season
 Be not Slothful,
 but Followers of them who through Faith
 and Patience inherit the Promises”*

As Dale recorded, there is just the one standing headstone with legible text dating from 1821. However, behind the stone there are several small roughly cut pieces of stone indicating other burials; these lack inscribed text. Nearby we noted several

Figure 30: PAO staff testing next to the Blackhead One Room School and Church Museum.



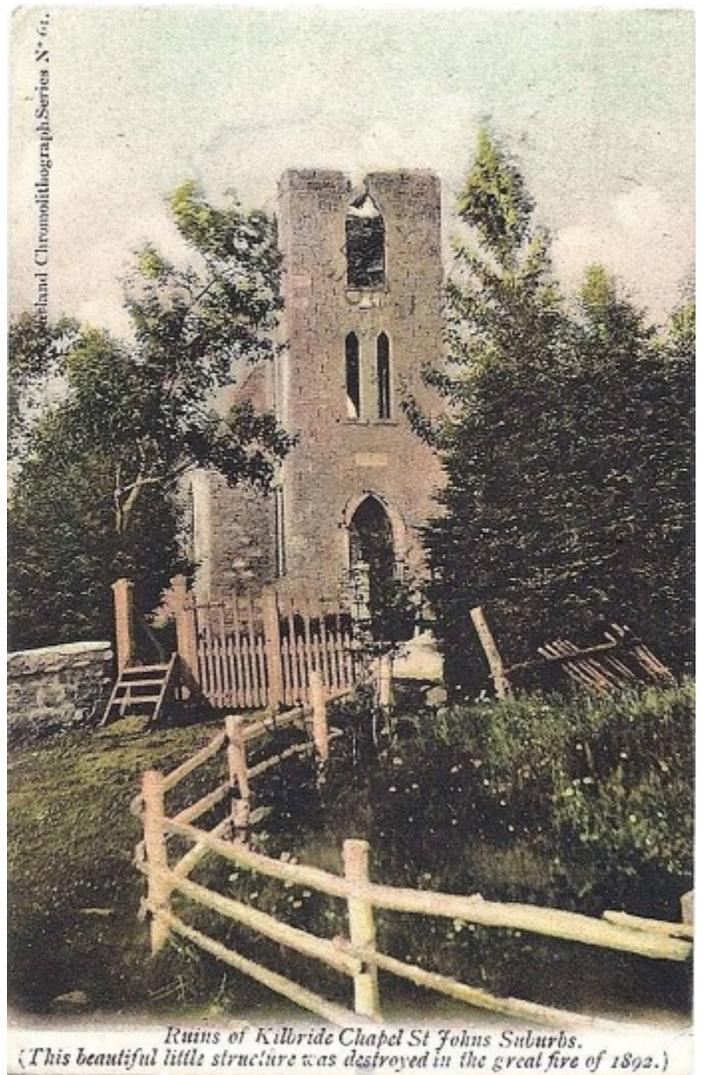
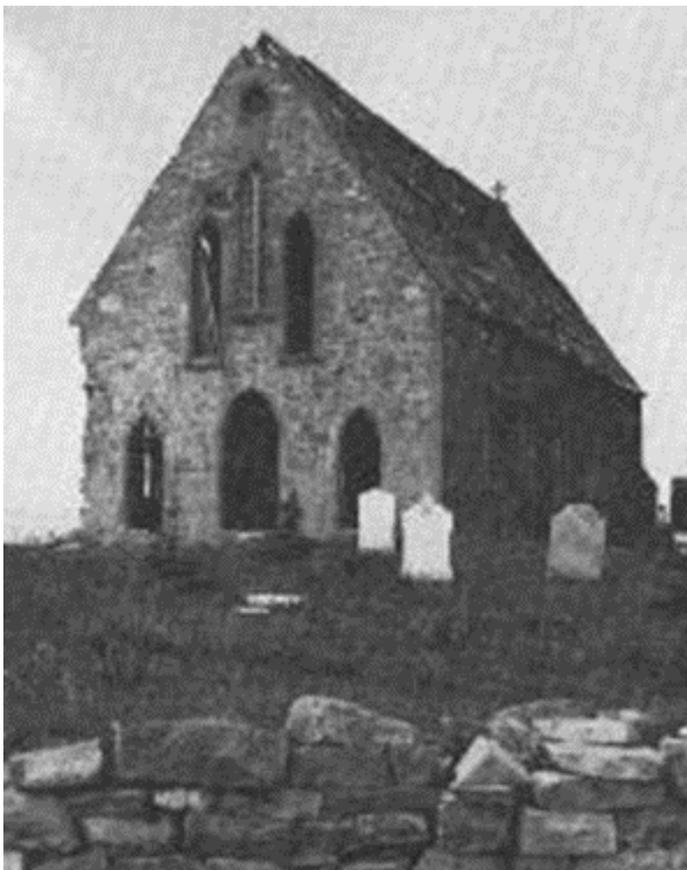
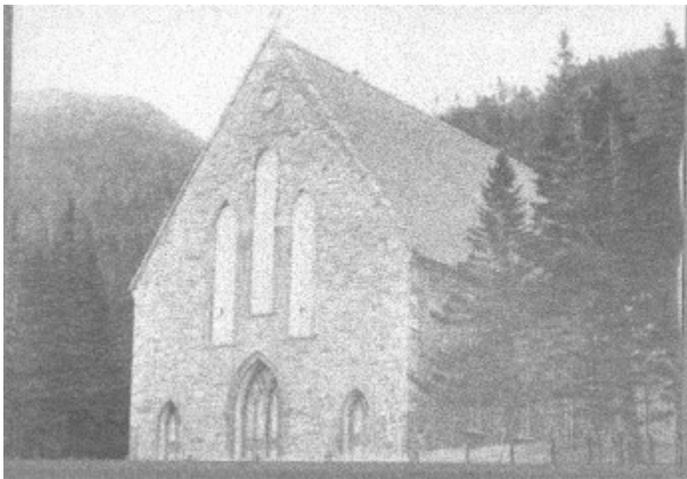


Figure 31: The other Mullock churches.
St. Kyran's (upper left), Ferryland (upper right), Torbay (lower left), Kilbride (lower right).

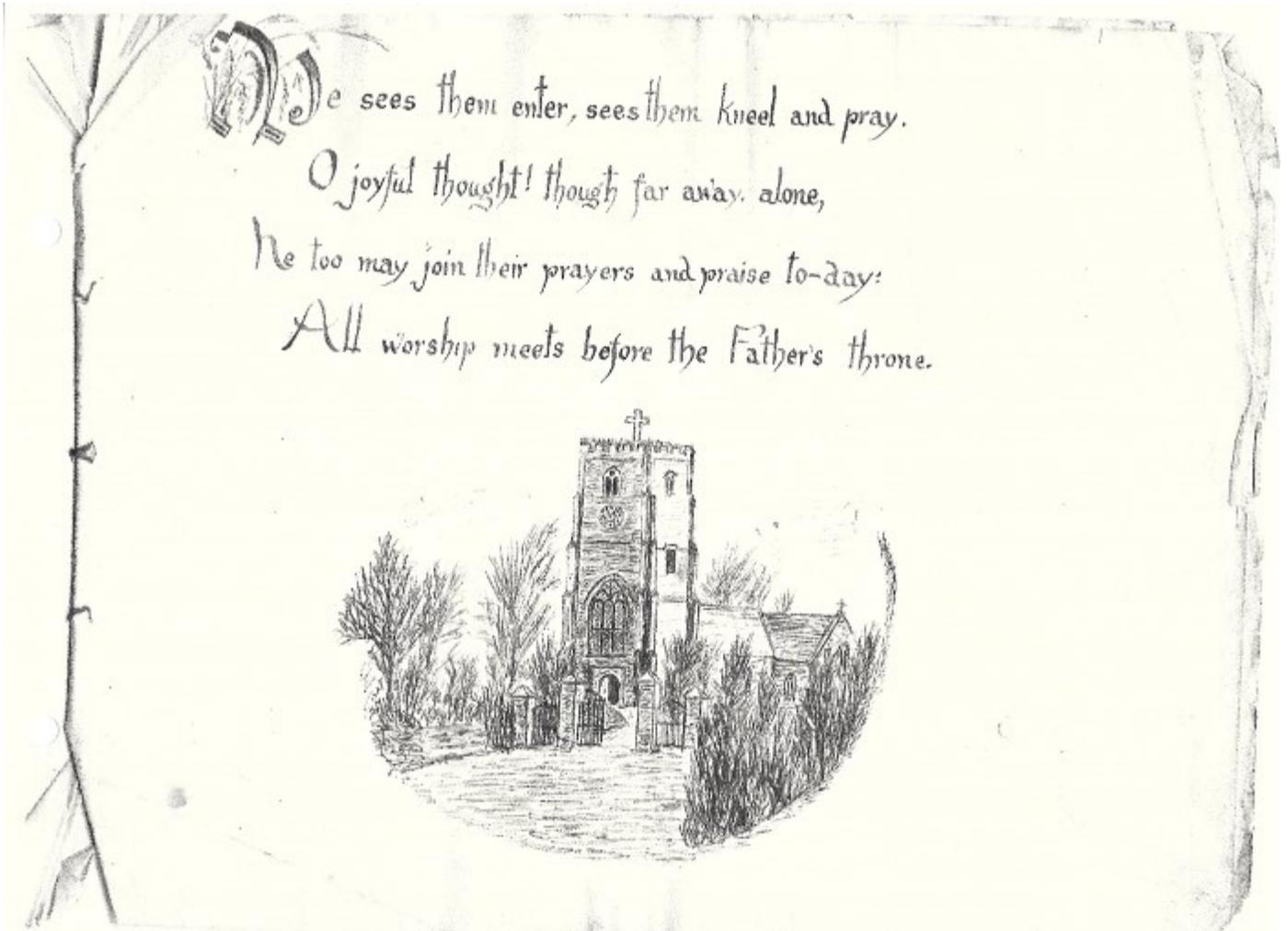
glass. Interestingly there was very little in the way of cut stone. In the five test pits, there may have been two cut stones and a small amount of mortar. We noted some cut stones on the surface in the bushes seen on the left side of the photo above. Unless the site was scavenged for building materials, this quantity of stone and mortar seems to have been insufficient for a building of that size. The lack of cut stone and mid-19th century newspaper articles describing the church as being near the sea were the reasons we questioned this as the location of the former church. You can read the blog post for more detail on our attempts to understand the location of the church.

In the end, despite our questioning the location we are comfortable in saying that the Star of the Sea church was likely in the location that we tested as believed by the Blackhead Museum Board. A few weeks after our fieldwork the chair of the Board told

us that a resident of Blackhead had recently met Ms. Paula Shortall, whose family had long ties to Blackhead. Ms. Shortall owned a family bible that contained a poem that had sketches in it written and drawn by her grandfather Mr. John Shortall in 1904 when he was 18 and living in Blackhead. One of the sketches was that of a stone church that bears a striking resemblance to the other Mullock churches, particularly that of Kilbride. In fact, looking closely at the drawing, on the lower right side is another smaller building oriented perpendicular to the church. This building may be the current Blackhead One Room School and Church Museum that was built in 1879. However, given the angle of the drawing it is difficult to say this for sure. The projection could also be a transept (Figure 32).

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Figure 32: Shortall, John. (ca. 1904) "Afloat at Christmastide" copy of unpublished poem from Shortall Family, Blackhead One Room School and Church Museum.



**Brigus (North Side )  
Survey 20.19**

As follow-up to our work in Brigus in 2019, the PAO further explored reference to the 18thC “King George’s War” military fortification said to have existed at the Landfall Cottage site. Although no primary documentary evidence was found to support claims for a military fortification in Brigus, it was hypothesized that, if such a fortification existed, that it may be better situated nearer the mouth of the harbour between Gallows Cove Point and Great Head (Figure 33).

To test this possibility the PAO undertook a survey of the north side of the harbour. Although we were not successful in locating a gun battery, it did result in the location of two new sites: Brigus Cove 1 (CjAh-36) and Gallows Cove Point (CjAh-37). Brigus Cove 1 consists of a low stone rectangular foundation that appears associated with a fenced stone lined-root cellar previously recognized by the community (Figure 34). As a 19thC European habitation site, the archaeological remains appear largely undisturbed, though some erosion from adjacent trail use has resulted in limited exposure of a few small ceramic fragments.

Testing at Gallows Point produced a small collection of 19thC materials including ceramics, glass, nails, part of lock mechanism, a pipe stem, and an apparent whetstone curiously fashioned from a modified brick fragment (Figure 35). One of the two test pits also revealed charcoal flecks and a burned bone fragment. In general, dating for the site is based on the ceramic assemblage, which appears to be mostly from the early 19thC, and includes hand-painted pearlware and whitewares, and coarse red earthenware with a brown glaze.

On the basis of a favourable location, a generally level ground area and the vegetation pattern, Gallows Cove Point seemed to have a high potential for cultural remains. In addition, as a potential gun bat-



Figure 33: Location map.

Figure 34: Stone-lined root cellar – Brigus Cove 1.





**Figure 35: Artifacts recovered from Gallows Cove. Polychrome White Earthenware (top left), Red Earthenware (top right), Modified Brick (Whetstone?) (bottom).**

tery site, this location would have afforded a better view of approaching ships. While testing did reveal evidence of use, the remains suggested an early to mid- 19thC occupation, this site is more likely related to habitation and fishing as our testing failed to reveal any stone works or other objects that might be associated with an 18thC gun battery, civilian or otherwise.

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# Shipwrecks Recorded off the Burin Peninsula and in Placentia Bay, Newfoundland

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Figure 1: Shipwreck locations recorded off the Burin Peninsula (A) and in Placentia Bay (B) in 2020.



**I**ntrouction  
 In 2020, divers from the Shipwreck Preservation Society of Newfoundland & Labrador Inc. (SPSNL) took part in a shipwreck diving expedition to the Burin Peninsula and Placentia Bay, Newfoundland, organized by Ocean Quest Adventures of St. John's. The expedition provided the opportunity to relocate and conduct preliminary recording of several historically significant shipwrecks from the 20<sup>th</sup> century. It also provided the opportunity to network with board members and staff at community museums in St. Lawrence, Lawn and Placentia, NL, and discuss common interests in promoting local shipwreck history.

Field work was conducted on the Burin Peninsula on September 12-16, 2020. We carried out scuba dives and took underwater photographs on the wreck sites of USS Truxtun and USS Pollux southwest of St. Lawrence and of SS Argos south of Burin (Figure 1A). We searched unsuccessfully for the wreck of the sailing ship Monasco near Corbin and the cannon site in Little St. Lawrence Harbour. Field

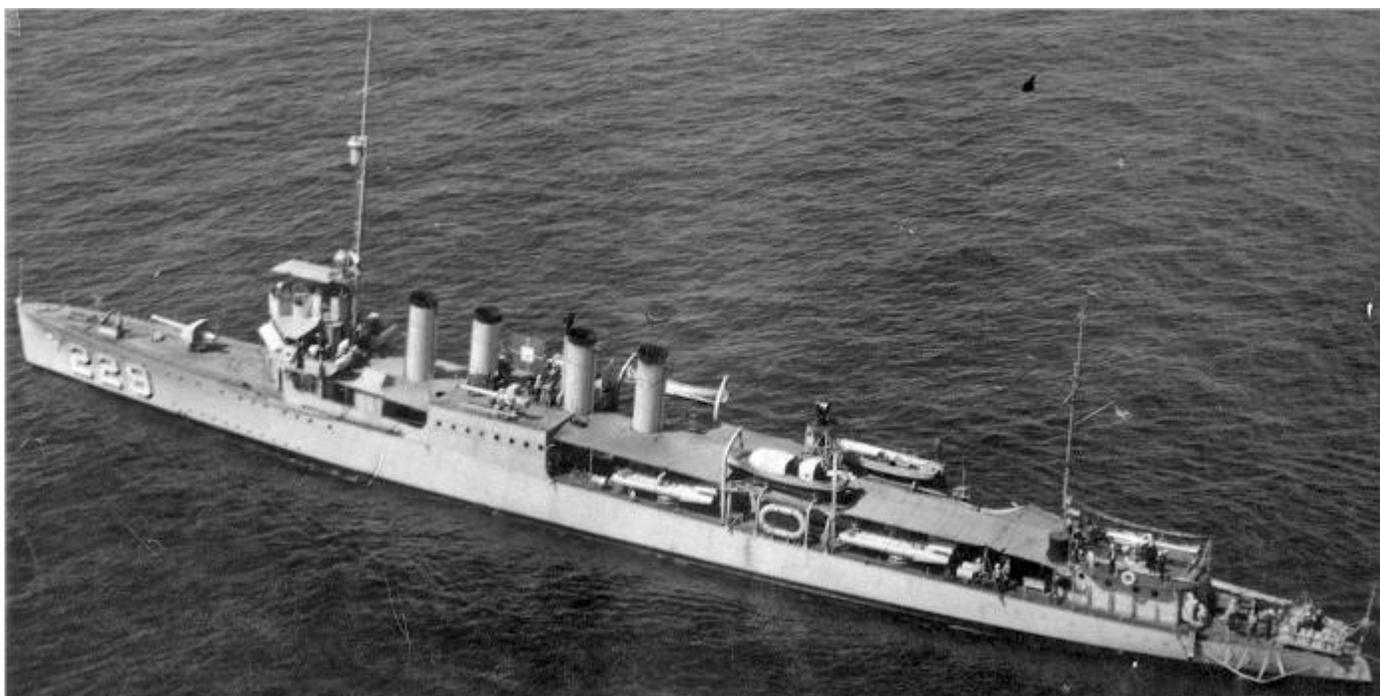


Figure 2: U.S. Navy destroyer USS Truxtun (DD-229). photo: [www.wrecksite.eu](http://www.wrecksite.eu)

work shifted to Placentia Bay on October 4-5, 2020. We dove and collected underwater photographs on the schooner wreck Alberto Wareham at Port Royal on Long Island and on an unidentified whaling ship adjacent to the former whaling station at Rose au Rue on Merasheen Island (Figure 1B). All diving was done from a rigid-hulled inflatable boat of Ocean Quest Adventures.

**USS Truxtun (CfAu-02)**  
 USS Truxtun was a U.S. Navy destroyer (DD-229) built in 1921. On February 18, 1942, it was proceeding in convoy with the USS Wilkes and USS Polux to the American Naval Station at Argentia, NL (Brown, 1985). In a blinding winter blizzard, the destroyer ran aground and eventually sank in Chambers Cove, southwest of St. Lawrence, NL. Heavy seas battered the ship and killed most of the crew trying to get ashore. Of the 156 crewmen aboard, 110 died. Heroic rescue efforts by the residents of St. Lawrence saved 46 sailors (Brown, 1985). USS Truxtun was 96m long (Figure 2) with two steam turbine

engines and two propeller shafts. It was armed with four 4-inch guns, one 3-inch AA gun, two 20mm AA guns, two .30 calibre machine guns, and twelve 21” torpedo tubes ([www.wrecksite.eu](http://www.wrecksite.eu), 2020).

The location of the Truxtun shipwreck was known to Ocean Quest Adventures, and we conducted our only dive on this site on September 12. The wreck site in Chambers Cove is shallow and very exposed to ocean swells from the south and west, and this was the only day when sea conditions allowed us to safely dive on this wreck. The ship has been completely battered apart by strong wave action in a shallow area at a depth of 5-7m, adjacent

Figure 3: Steam turbine engine on USS Truxtun wreck. photo: Neil Burgess.



to a small rocky islet in the cove. The wreckage consisted of several large pieces of machinery, such as a steam turbine engine (Figure 3), gearbox and propeller shaft, along with flattened steel plates from the hull, wiring, pipes, large quantities of live ammunition (Figure 4) and many pieces of small metal hardware (e.g., bolts, valves, cutlery, etc.) Our single dive did

not provide sufficient time to delineate the full extent of the debris field.

A subsequent interview with former commercial salvage diver Jacques Perrot (personal communication, Jan 13, 2021) revealed that he used explosives on the Truxtun wreck between 1966 and 1982, to break apart and recover two brass propellers, brass pumps, copper condensers, and brass hardware. All was sold as scrap.

#### USS Pollux (CfAu-01)

USS Pollux was a U.S. Navy supply ship (AKS-2) built in 1939. On February 18, 1942, it was proceeding in convoy with the USS Wilkes and USS Truxtun to the American Naval Station at Argentia, NL (Brown, 1985). In a blinding winter blizzard, the ship ran aground, broke up and eventually sank at Lawn Head, southwest of St. Lawrence, NL. Heavy seas battered the ship and killed many of the crew trying to get ashore. Of the 233 crewmen aboard, 93 died. Heroic rescue efforts by the residents of Lawn and St. Lawrence saved 140 sailors (Brown, 1985). USS Pollux was 140m long (Figure 5) with two steam turbine engines and one propeller shaft. It was armed with one 5-inch gun and four 3-inch guns (www.wrecksite.eu, 2015a).

The exact location of the Pollux shipwreck was unknown to our group. Based on a map drawn by an eyewitness (Brown, n.d.) and a 1942 photo of the Pollux aground on Lawn Head by Edna Farrell Edwards (Brown, 1985), we first located the wreck site on September 13, 2020. Initial dives located a 3-inch deck gun, parts of a Yarrow boiler (Figure 6), steel plates from the hull and large quantities of small metal hardware (e.g., bolts,



Figure 4: Corroding artillery shells and machine-gun ammunition on USS Truxtun wreck. photo: Neil Burgess.

padlocks, cleats, cutlery, valves, etc.) (Figure 7). USS Pollux (similar to the Truxtun) has been completely battered apart by strong wave action at a depth of 12 to 20m, roughly 100m off the sea cliffs near the headland. More dives on September 16, 2020 revealed broken sections of the propeller shaft, three more deck guns, several aerial bombs and a large gearwheel

(Figure 8). The underwater debris field extended over at least 200m, but we were unable to accurately determine its full extent in a limited number of dives.

Subsequent computer processing of the underwater photos using GIMP (GIMP, 2020) and Agisoft Metashape (Agisoft, 2020) software yielded 3D photogrammetry of one of the 3-inch deck guns on the USS Pollux wreck (Figure 9), which can be better viewed in 3D at <https://sketchfab.com/SPSNL>.

The interview with former commercial salvage diver Jacques Perrot (personal communication, Jan 13, 2021) revealed that he used explosives on the Pollux wreck between 1966 and 1982, to break apart and recover the 18-ton brass propeller, brass pumps, copper condensers and ingots, and tons of brass hardware that was part of the cargo. All were sold as

Figure 5: U.S. Navy supply ship USS Pollux (AKS-2). photo: www.wrecksite.eu



scrap.

**SS Argos (CfAs-01)**

SS Argos was a Swedish-owned steamship built in England in 1899 ([www.wrecksite.eu](http://www.wrecksite.eu), 2015b). The ship was sailing from Argentia, NL to Miramichi, NB when it ran aground in fog on Cat Island (south of Burin, NL) on June 22, 1925 (Anon., 1925a, 1925b, 1925c). The following evening, the ship broke in two and sank, drowning four Burin fishermen who were engaged in salvage onboard. SS Argos was 95m in length, 2538 gross registered tons, had a triple-expansion steam engine, one propeller and carried a Swedish crew of 27, who all survived ([www.wrecksite.eu](http://www.wrecksite.eu), 2015b).

We carried out a single dive and photographed the wreck of SS Argos in the channel on the north side of Cat Island on September 15, 2020. The steel frames, deck and hull plates were flat on the bottom at depths of 15-19m. The remains of this shipwreck were more complete than the Truxtun and Pol-



**Figure 6: Remains of a Yarrow boiler on USS Pollux wreck. photo: Neil Burgess.**

lux wrecks. We found several windlasses (Figure 10), masts, bollards, anchors and two large steam boilers (Figure 11). The steam engine and propeller appeared to be missing. A small section of the bow retained its 3D structure (Figure 10).

The interview with former commercial salvage diver Jacques Perrot (personal communication, Jan 13, 2021) revealed that he used explosives on the

Argos wreck sometime between 1966 and 1982, to break apart and recover the five-ton brass propeller, triple-expansion steam engine, copper condensers, and brass hardware. All were sold as scrap.

**Barque Monasco (CfAt-02)**

The American barque Monasco (sometimes misspelled as Manesca or Menaska) was sailing from Gothenburg, Sweden to New York in the summer of 1857 carrying pig iron and 55 (or 61 or 76) Swedish immigrants. It ran aground in fog near Corbin Head, NL on July 21, 1857.

**Figure 7: Metal hardware and steel plates on USS Pollux wreck. photo: Chris Power.**

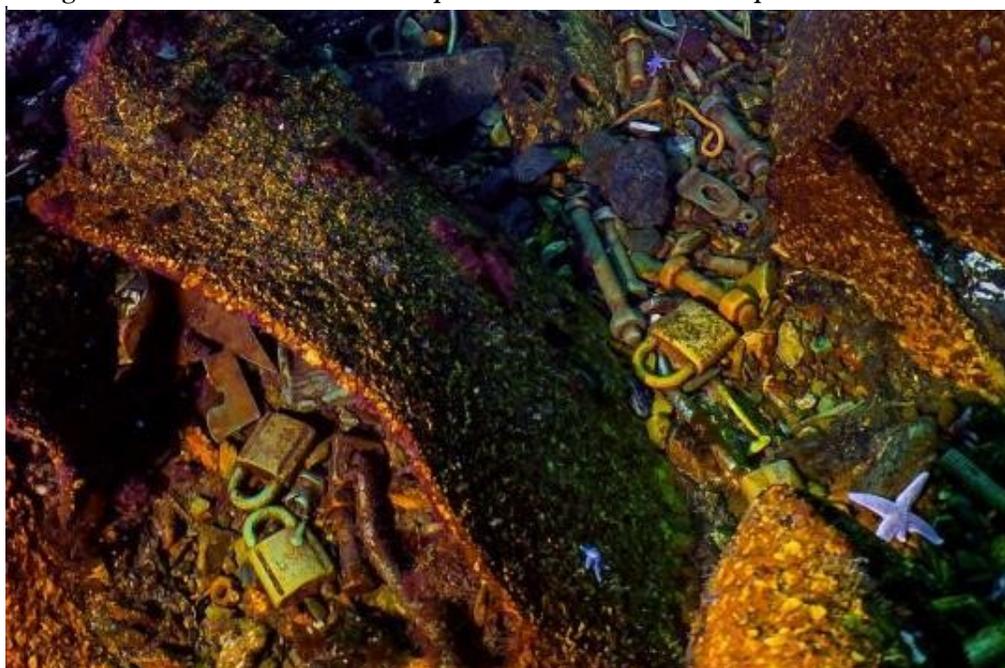




Figure 8: Large gearwheel on USS Pollux wreck. photo: Chris Power.

Figure 9: 3D photogrammetry of 3-inch deck gun on USS Pollux wreck. photo: Neil Burgess.

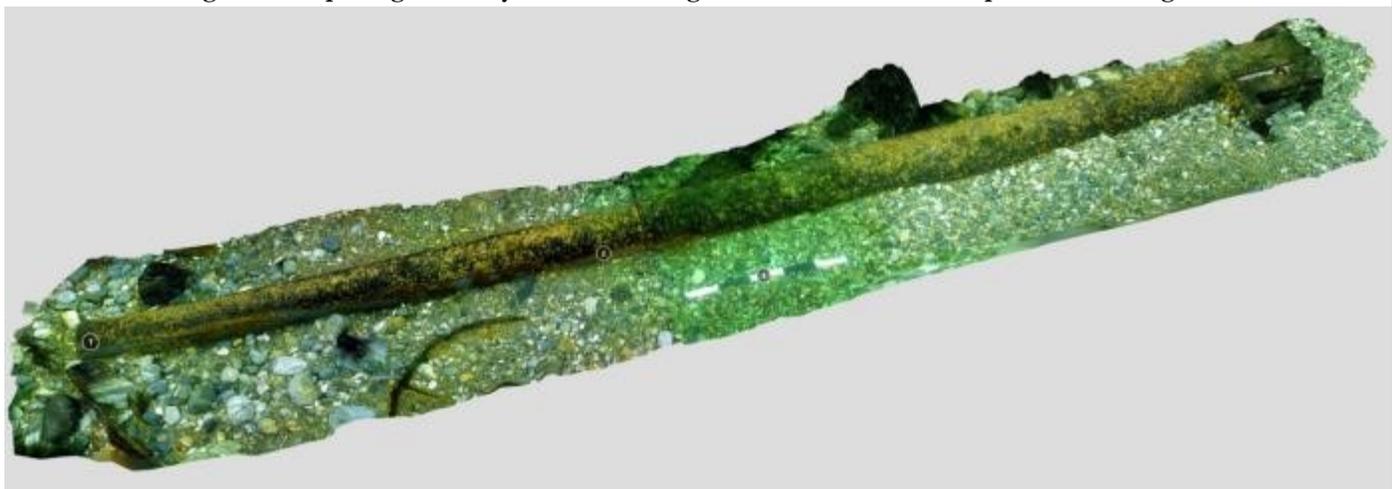




Figure 10: Bow windlass with bow structure in background on SS Argos wreck. photo: Chris Power.

Figure 11: A steam boiler and steel framing on SS Argos wreck. photo: Chris Power.





**Figure 12: The schooner Alberto Wareham in the 1950s.**

**photo: Maritime History Archive, Memorial University of Newfoundland, PF-013.001.**

The captain and crew abandoned most of the passengers on the wreck and escaped in a longboat. Local fisherman recovered about 50 bodies from the wreck and buried them in Swede's Cove (now known as Swolho Cove) near Corbin. Local legend offers more dramatic versions of the events. Some accounts say the captain intentionally drowned the passengers by locking them below decks and fled with all their valuables and a new mistress (Howley, 1912; Andrieux, 2004). Dobbin the Diver (Thomas David Dobbin) gave a vivid account to a newspaper in 1892 of diving on the wreck of the Coomeraskie (he misremembered the name of the ship 35 years later) near Corbin Head in 1857 and recovering 70 dead bodies (including 5 tied to the deck rail) (Anon., 1892). However, the accuracy of Dobbin's account is questionable, since none of the 1857 newspapers mention any diving on the wreck and they report that local fishermen were responsible for recovering the bodies. Subsequently, the often-repeated mix of legend and myth has obscured the true facts of the Monasco sinking.

We did a single dive on September 15, 2020 and searched on Menaska Shoal, just east of Corbin,

for any remains of the Monasco shipwreck. We found nothing of the ship or its cargo of pig iron. Afterwards, we made a quick visual survey of the ground in Swolho Cove, where 50+ victims of the shipwreck are said to be buried in a mass grave. A quick visual inspection of the clearings in the cove did not reveal any obvious evidence of the burials.

#### **Little St. Lawrence cannon site (CfAu-07)**

The Combined Atlantic Diver Guide (Barron, 1999) includes a description of an underwater cannon site in the harbour of Little St. Lawrence, NL. Barron cites a 1982 project report by the Newfoundland Marine Archaeology Society (NMAAS, 1982) as the source of his information.

We conducted one dive on the site indicated on a map in Barron (1999) and searched a 150m stretch of shoreline with four divers out to a depth of 10m. We found no cannons nor other archaeological remains during this non-disturbance visual search of the sea bottom.

#### **Schooner Alberto Wareham (CjAm-06)**

The Alberto Wareham was the largest two-masted banking schooner built in Newfoundland (Butler,



**Figure 13: Remains of flour sacks in cargo hold of Alberto Wareham wreck. photo: Neil Burgess.**

1975). It was built in Creston North, NL in 1950 and was owned by Alberto Wareham Ltd. of Spencer’s Cove, Long Island, Placentia Bay (Parsons, 2007). The schooner was 41m long (Figure 12), 243 gross registered tons and had a six-cylinder diesel engine. The schooner was loaded with sacks of flour when it caught fire in the engine room and sank at anchor in Port Royal, Long Island, Placentia Bay on November 13, 1956 (Butler, 1975; Parsons, 2007).

We carried out a single dive on the wreck of the Alberto Wareham on October 4, 2020. The wreck sank in a sheltered harbour at depth of 7-20m. Visibility in the water was only 7m. The hull and deck of most of the ship were intact, while the stern was missing due to the fire. The foremast was broken off and stuck vertically in the seafloor. The main mast and the Atlas Imperial diesel engine were missing from the wreck. Features on the wreck included the bow windlass, several open cargo hatches and some rigging. Remains of the cargo of bagged flour was found in the hold (Figure 13). Dense kelp growth obscured many details of the ship’s structure and artifacts, and made photography difficult. Ken Keeping of Maritime

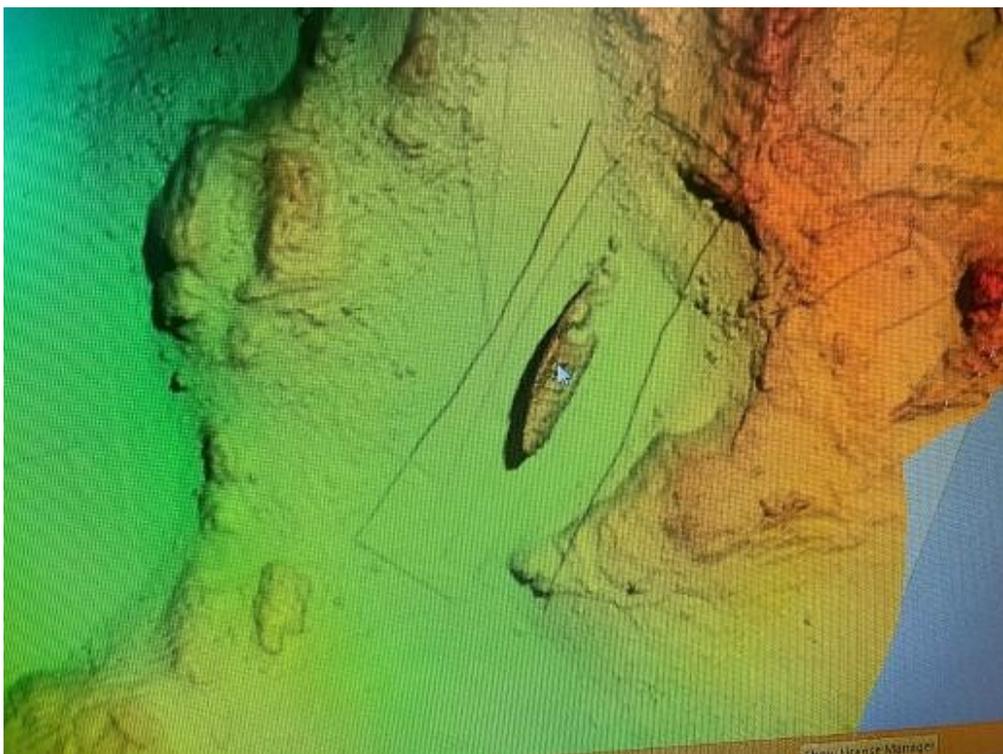
Survey Services Ltd. kindly shared a multibeam sonar image of this shipwreck (Figure 14).

**Unidentified Whaling Ship, Rose au Rue (CjAn-05)**

A steel whaling shipwreck is located adjacent to the former whaling station at Rose au Rue, Merasheen Island, Placentia Bay, NL. The identity of the whaling ship is unknown at this time. The Rose au Rue whaling station was operated most years between 1902 and 1945 by a succession of four different whaling companies (Dickinson & Sanger, 2018). The authors state that 10 different whaling vessels operated from this whaling station over the years. Yet, they indicate that none of these ships were abandoned at Rose au Rue.

We carried out a single dive on the whaling shipwreck at Rose au Rue on October 4, 2020. Reduced water visibility and heavy seaweed growth on the shipwreck made photography challenging. The shallow shipwreck extends from 1.5-10m in depth and is 40m in length. The steel hull is largely intact and partially buried in the gravel bottom. The steel deck is intact forward but appears to have collapsed into the hull in the stern. The steel hull, deck and frames are extensively corroded (Figure 15). Some wreckage was found on the seafloor beside the bow.

**Figure 14: Multibeam sonar image of Alberto Wareham wreck in Port Royal. photo: Ken Keeping, Maritime Survey Services Ltd.**



The wreck site is partially protected from eastern and southern winds and seas by Rose au Rue Island.

**SS Champlain (CfAu-09)**

SS Champlain was built in Scotland in 1904 as a Canadian government icebreaker. It was sold in 1920 to a succession of companies on the St. Lawrence River and Great Lakes, which used the ship mainly as a tug (Lewis, 2020) (Figure 16). In 1942, the ship was owned by Bowaters's Newfoundland Pulp & Paper Mills Ltd. in Corner Brook, NL. The tug ran aground near Lawn, NL on December 18, 1942, was refloated on January 5, 1943 and sank on January 6, 1943 while under tow off St. Lawrence (Lloyd's Register, 1944).

While conducting multibeam sonar surveys of the seafloor off St. Lawrence, NL on August 3, 2020, staff of the Marine Institute discovered a steel ship-



**Figure 15: Heavily corroded deck frames covered in seaweed on Rose au Rue whaling shipwreck. photo: Neil Burgess.**

wreck with a length of 36m at a depth of 69m (Figure 17). Underwater video confirmed that the wreck was a steel ship, likely from the 20<sup>th</sup> century, judging by its condition. They contacted the Shipwreck Preservation Society of Newfoundland & Labrador (SPSNL) for assistance in identifying the shipwreck.

**Figure 16: SS Champlain used as a tugboat on the Great Lakes in 1920s or 1930s.**



Research by SPSNL revealed that SS Champlain sank just off Cape Chapeau Rouge in 1943, that it had a length of 36.6m and the historical details above (Lloyd's Register, 1942, 1944; [www.wrecksite.eu](http://www.wrecksite.eu), 2018).

**Limitations**

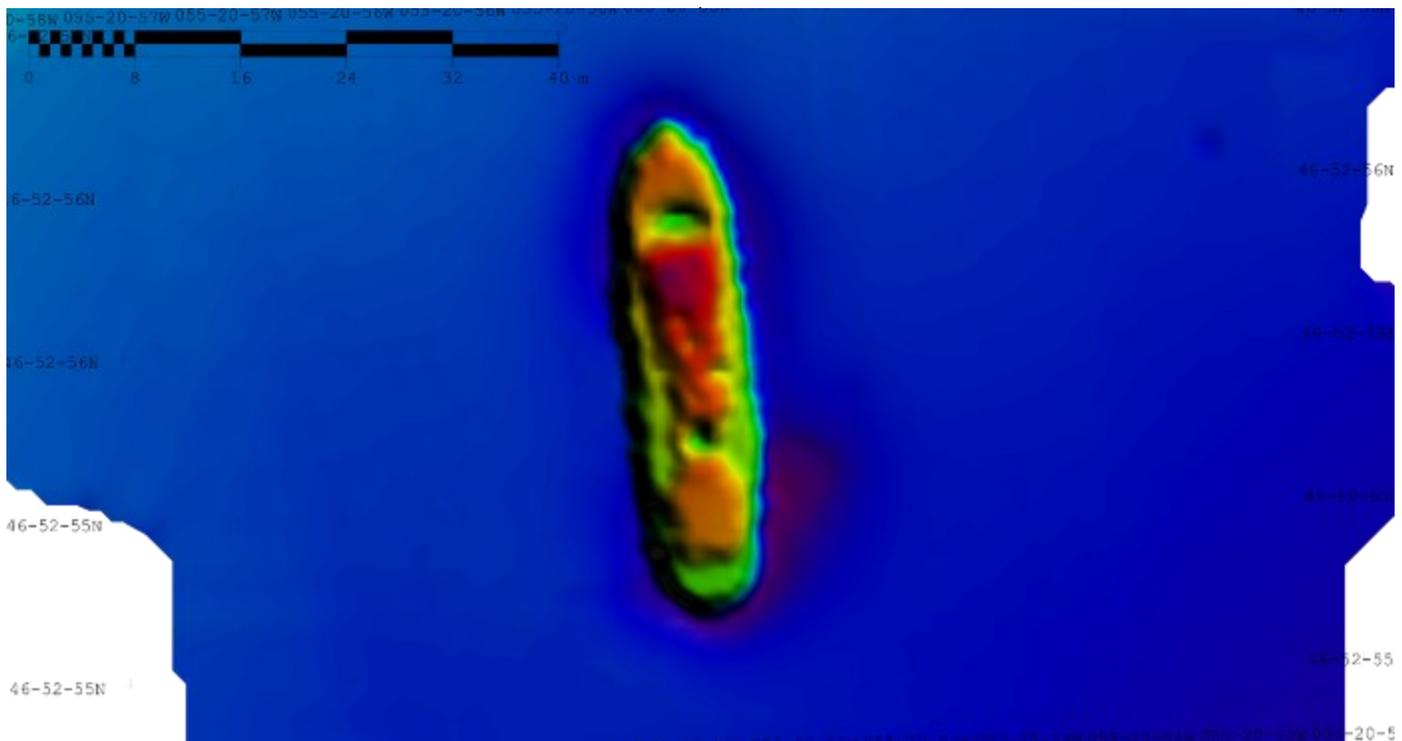
The primary physical limitations for conducting these underwater surveys were sea conditions at the exposed sites of the USS Truxtun and USS Pollux near St. Lawrence and the SS Argos near Burin. The sites are very exposed to ocean swells from west and south (Truxtun and Pollux), and the east and west (Argos). Conditions were only suitable at the Truxtun site for one dive during three

days in the area. Swell and surge made diving on the USS Pollux site “interesting” on both days. The swell also filled the water with particulate from the seafloor, which reduced visibility and lowered the clarity of underwater photos. Calm weather and sea conditions will be advantageous for future surveys and photography at these sites.

The other logistical limitation was our narrow time window for diving on all sites reported here. Our surveys were limited to one or a few dives on each site, which meant we had to dive in the weather

metal artifacts are clustered in gulleys and low spots on the seafloor. The bow section of USS Pollux broke off and sank separately from the stern in 1942 (Brown, 1985). We did not locate this bow section in 2020. We did locate four of the five deck guns on the Pollux wreck site. Further diving will be necessary to delineate the full extent of both wreck sites, and make a full inventory of visible features and site maps. The interview with a commercial diver who used explosives to salvage propellers, condensers, pumps and other parts from both wrecks provides a partial expla-

**Figure 17: Multibeam sonar image of SS Champlain wreck off St. Lawrence, NL.  
photo: Kirk Regular, Marine Institute of Memorial University.**



and sea conditions that prevailed then. More dive time on these sites would allow us to complete our photographic surveys and site maps, and record the full extent of each shipwreck site.

**Interpretation and Discussion**

The wreck sites of the USS Truxtun and USS Pollux are very exposed to ocean swells. Only large, heavy pieces of the ships are intact on the bottom. These include deck guns, one steam turbine engine, a gear-box, several sections of propeller shafts, and a disarticulated Yarrow boiler. The steel plates of the hulls, decks and bulkheads have been ripped apart and flattened by wave action over the past 78 years. Small

nation for their deteriorated condition. It is presently unclear if the U.S. Navy conducted any salvage operations on these shipwrecks in the 1940s. Navy hard-hat divers were stationed at the nearby Argentia Naval Station during World War II. The very exposed nature of these wreck sites makes them appropriate only for experienced divers with capable dive-boat support. When seas are rough, diving at these sites would be unsafe. The abundance of small brass artifacts (including live ammunition) on both wrecks make them susceptible to looting by recreational divers.

The wreck of SS Argos has been beaten flat

by wave action and salvage operations since 1925. Oral history shared by the commercial salvage diver confirms that the steam engine, brass propeller and other parts were salvaged in the late 20<sup>th</sup> century. A quick non-disturbance visual survey of the site indicated a lack of small artifacts (perhaps also due to wave action), so this site would be an appropriate wreck for recreational diving (with little risk of looting). It has the advantages of moderate depth (15-19m), large size with lots of interesting features (two boilers, two anchors, several windlasses and bollards, an extensive assemblage of steel hull and deck sections with frames), and a location that is easy to find and somewhat sheltered from northerly and southerly winds and seas.

Further exploration will be required to locate the wreck of the sailing vessel *Monasco*. Local oral history has suggested several other nearby locations to search. Our quick visit to Swolho Cove did not provide any obvious evidence of the mass graves of the shipwreck victims said to be there. Further archaeological survey work would be necessary to confirm these burials.

The lack of cannons found after our underwater search of the Little St. Lawrence site casts doubt on the accuracy of the description in Barron (1999). A review of the NMAS annual report for 1982 indicates that no cannons were found at Little St. Lawrence (p. 16). However, three cannons were found underwater in Little Mortier Bay (CgAs-01) near Burin, NL (pp. 16-17). Since Barron did not dive at many of the sites described in his guidebook, we conclude that he may have inadvertently confused the two sites described in the NMAS (1982) report. We hope to conduct future underwater surveys at the Little Mortier Bay site to re-locate the cannons previously seen there by NMAS.

The wreck of the schooner *Alberto Wareham* is more intact than most wooden shipwrecks in Newfoundland. The sheltered location and moderate depth (7-20m) make it an ideal dive site for recreational divers of all levels. This wreck also provides an excellent opportunity for SPSNL to collect local oral history, since memories of the sinking and recovery of flour sacks are still alive in the resettled communities on Long Island.

The steel whaling wreck at the former Rose au Rue whaling station also provides a good wreck

diving opportunity for scuba divers of all skill levels. Further historical research will be required to establish the identity of the sunken vessel.

We have tentatively identified the steel shipwreck discovered by the Marine Institute outside the harbour of St. Lawrence as *SS Champlain*, based on its location, length and features visible in the underwater video. The shipwreck is too deep for recreational divers, but it is accessible to technical divers or remotely operated vehicles (ROVs). Further collection of photos or video will be required to confirm the ship's identity with certainty.

### **Project Outcomes**

Through this project, SPSNL has met its goals of locating, documenting and promoting public awareness of historically significant shipwrecks off the Burin Peninsula and in Placentia Bay. Outcomes include:

1. re-locating and photographing the wrecks of USS Truxtun, USS Pollux and SS Argos,
2. locating and documenting the schooner wreck *Alberto Wareham*,
3. working with the Marine Institute to collaboratively discover, document and tentatively identify the wreck of *SS Champlain*,
4. generating new multibeam sonar imagery and 3D photogrammetry of one wreck,
5. sharing photos, sonar imagery and photogrammetry of these shipwrecks on social media to increase public awareness of these shipwrecks and appreciation of their importance to provincial heritage,
6. establishing new partnerships with community museums in St. Lawrence, Lawn and Placentia to promote shipwreck history,
7. submission of a joint funding proposal with the St. Lawrence Historical Advisory Committee to Digital Museums Canada, to create a new virtual museum exhibit "Exploring Newfoundland & Labrador Shipwrecks", and
8. collaborating with Ocean Quest Adventures to identify and document new wreck diving sites in the province, to help augment the adventure tourism economy in an archaeologically responsible and environmentally sustainable manner.
9. Producing this report of the findings of the Shipwreck Expedition in fall 2020.

### **Next Steps**

There are several activities which SPSNL is planning

for the future:

1. further historical research on these shipwrecks and others,
2. collection of oral history on and historical photographs of these shipwrecks and others,
3. increasing our technical expertise in underwater data collection methods such as 3D photogrammetry,
4. finish production of a virtual museum exhibit on “The Tragic Sinking of the S.S. Caribou” in partnership with the South West Coast Historical Society and Digital Museums Canada,
5. if successful in obtaining funding from Digital Museums Canada, to increase our data collection and web development activities in order to create a new provincial virtual shipwreck exhibit,
6. continue our public education activities on our website and social media channels, and
7. develop a new citizen-science approach to engage our membership in conducting non-disturbance surveys of local shipwrecks and producing data useful for the management of our underwater cultural heritage.

#### **Acknowledgements**

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# 2020 Archaeological Work at Admiral's/Fort Point, Trinity, NL

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Figure 1: South Facing View of Admiral's Point, Photo courtesy of Jake De La Plante.

This year a limited survey was conducted at the Admiral's point site in Trinity, NL (Figure 1). The site had been previously excavated in 1969 by Albert Bartovics (1970) and in the mid 1990s, by Roy Skanes (1994; Skanes and Reynolds 1996). The main objective of this fieldwork was to improve on the existing site maps by providing up to date drone survey data as well as Geo-referenced survey points of the surviving, visible features. The locations of confirmed features would then be compared to documentary sources, both to assess the accuracy of the period maps as well as the relationship between structures. A secondary goal was to explore the use of 360° pho-

tography as a method for site documentation and to provide a way to virtually view the site, particularly via online media platforms such as YouTube. This project, which is a component of my M.A. research, was partially motivated by the travel restrictions associated with the COVID-19 crisis and the desire to create low cost, virtual and accessible ways of viewing archaeological sites.

This fieldwork was conducted over two days in September of 2020. We prioritized a detailed survey of the marked and most distinct archaeological features; such as the main battery, storehouse and magazine all of which were excavated to varying degrees during the previous archaeological work at the

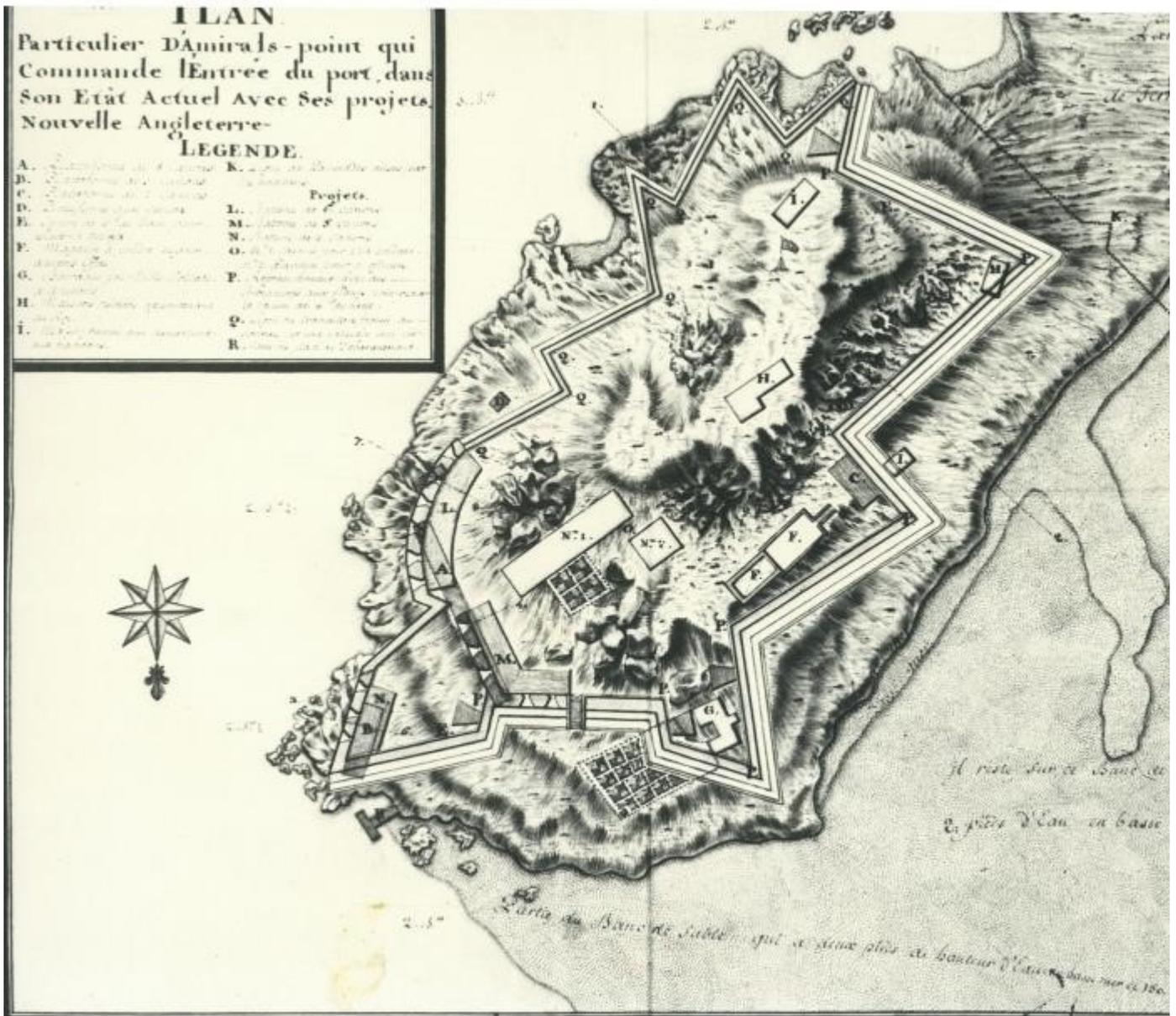


Figure 2: 1762 plan of the fortifications at Admiral's Point, Marc Antoine.

site (Bartovics 1970; Skanes 1994; Skanes and Reynolds 1996). These features are maintained through the efforts of the Trinity Historical Society (2018). All together, six features were surveyed; these included the above-mentioned main battery, storehouse and magazine, as well as the limited remains of the three gun batteries, what is possibly the barracks and a Dorset camp, dating to approximately 1500 BP (Skanes and Reynolds; 1996). All of these features, with the exception of the Dorset camp, were depicted in period maps of the fortifications, notably by the French engineer, Marc Antoine, who surveyed the fortifications during the brief French occupation in

the summer of 1762. However, documentary sources and previous excavations suggest the presence of additional features at the site, including additional defensive earthworks, and structures. These features will hopefully be surveyed in the spring and summer of 2021 (Figure 2).

The survey data was collected using RTK and the data points were plotted using QGIS. Survey points were taken at key points of visible features, such as corners, room or structure centres and identifiable doorways and at various points along the earthworks. Additional points were taken at key landscape features such as the central hill and other highly visi-



Figure 3: The Magazine, Photo Courtesy of Jake De La Plante.

ble features to aid in Geo-referencing. Points were not taken for non-archaeological or unidentifiable features. This was largely the case in the north half of the site, where ground vegetation and subsequent use of the site have obscured some features which are indicated in the documentary sources, though were outside of the aims of this survey. A future objective will be to try to identify the exact location and existence of these features (Figure 3).

Overall, the relative locations of the surveyed archaeological and natural features, more or less agree with the locations depicted on the primary source documents. However, there are some major exceptions. The first major discrepancy is the earthworks, which were likely far more limited than the fortifications depicted in the Antoine (1762) map, likely being limited to the gun batteries and making use of natural features such as the exposed bedrock and hills to protect vulnerable structures such as the magazine building. The second major discrepancy identified, is regarding the structure roughly equivalent to feature H

in the 1762 map and is likely the barracks (Antoine 1762). However, the survey revealed this structure is proportionally longer and the orientation is flipped from the feature shown on the map. While this structure is not positively identified at present, the documentary sources and its location in relation to other known features strongly suggest that it is the barracks, or a portion of the structure.

The second main objective of the 2020 fieldwork at Admiral's Point was the exploration of 360° photography as a method for accessible digital site documentation. The goal was to create a virtual first person view for each of the surveyed features, as well as the central hill, in order to give an overview of the site. The camera was mounted on a tripod roughly 182cm high, in order to approximate the height of a person. The camera was then placed so that key aspects such as walls, corner stones or other distinct features were visible. The precise location of the camera was recorded with RTK for each photo and like the survey points, plotted in QGIS. As a result,

the photos produced are equivalent to the view one would gain by looking at each feature in person, while the ability to change the view and fluidly navigate the space allows the viewer to gain an understanding of the relationship between the feature and its surroundings (Figure 4).

The videos were then uploaded to *YouTube*, which serves as a convenient online viewing platform, eliminating the need for those viewing them to have any media viewing software or even the video files. Additionally, this allows the videos to be shared conveniently using the respective URLs, which can also be included as links in text, or in a website. This web-based approach was largely motivated by the move towards remote working and the difficulties in arranging repeat site visits as a result of COVID related restrictions on field work.

Overall, the 360° photography provided a useful and unique perspective on the site. While it was originally intended as a way to present the site, they have proved to be very useful as a reference tool, al-

lowing us to virtually “re-visit” the site. Particularly as questions regarding the location, dimensions or relationship between features come up, it is possible to review the images and in some cases estimate dimensions and other details. With this in mind, future projects will make greater use of survey markers and indicators to help better understand the space depicted. Unfortunately, as the focus of the 2020 fieldwork was on the surveying, the inclusion of markers in the 360° images was overlooked. Nonetheless, they have proved themselves to be valuable research tools and in the future, measuring devices and markers will be included in the images (Figure 5).

#### **Acknowledgments**

I would like to acknowledge the support of the individuals and organizations that made this work possible. Thank you to the Trinity Historical Society for providing site access, the MUN Department of Archaeology, the J.R. Smallwood Foundation and the Provincial Archaeology Office. I would also like to personally thank the individuals who assisted with

**Figure 4: 360° Camera being used to survey possible barracks feature, Photo Courtesy of Jeffery Speller.**





Figure 5: Screenshot of processed 360° photo of main battery, Photo Courtesy of Jake De La Plante.

this project, including Dr. Barry Gaulton for supervising my ongoing M.A. research, James Williamson, Ashley Cameron, and Jeffery Speller for assisting in the fieldwork and project, as well as Jim Miller of the Trinity Historical Society.

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# Survey and testing on South Penguin Island

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**Figure 1: Eroding stretch of shoreline with lens of bird bone (photo credit Corey Hutchings).**

In 2018, bird biologists from Memorial University of Newfoundland (MUN) and the University of Manitoba found what they interpreted as a midden on South Penguin Island in Hamilton Sound, and produced a report based on the (presumed) archaeological material they recovered from an eroding bank (Montevecchi et al. 2018). Although no artifacts were reported at that time, the previously unsurveyed island was deemed to be of high potential for archaeological sites, and as the shoreline is actively eroding, a measure of haste was required. Because the island is a major nesting site for burrowing puffins (which dominated the faunal assemblage analysed by Montevecchi et al.) archaeological testing

was needed to determine whether the deposit of bird bone was indeed of archaeological origin. As archaeological sites with good bone preservation are relatively rare in this province, this site was of interest to the primary investigator (Deirdre Elliott), whose work focuses on zooarchaeology and zooarchaeological field recovery methods.

In October 2020, we (Deirdre Elliott and Corey Hutchings) traveled to Musgrave Harbour and met (in an outdoors, COVID-safe way) with Larry Easton, who drove us by boat to South Penguin Island, and pointed out the eroding lens of bird bone (Figure 1). (It should be noted that this lens was not observed in the same place as identified by Monte-

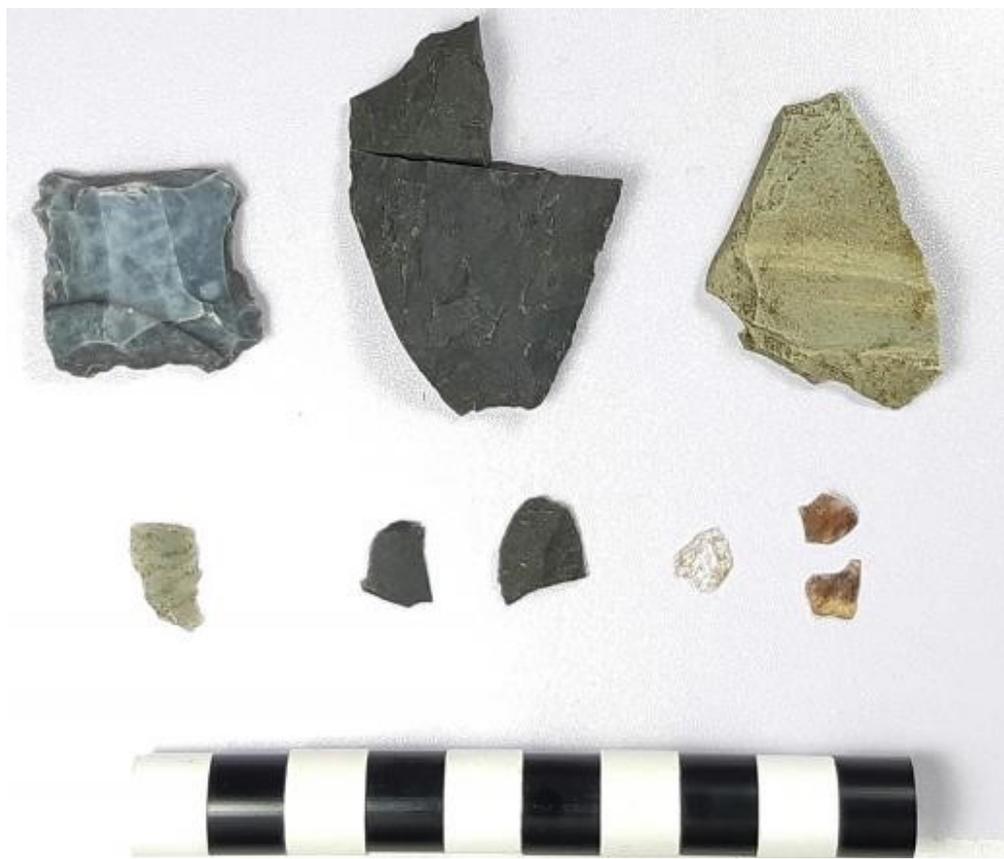


Figure 2: Sample of lithic artifacts recovered from beach (gunflint, top left) and test pit (clockwise from upper middle: incomplete refitted biface of dark grey chert, tan banded chert flake, red and tan mottled lithic flakes, quartz crystal flake, dark grey chert flakes, light grey speckled chert flake).

vecchi et al.) We then walked the perimeter of the island and examined eroding banks and near-shore areas for cultural remains. Although multiple areas seemed to have archaeological potential, identification of any structures was severely hampered by the extensive puffin burrows across much of the island, and camping areas and nesting boxes put in place by bird biologists over the past several years. An archaeological testing program is needed to determine the nature and extent of cultural remains, but was not possible during our very limited time on the island.

After examining the bank with the ~5cm thick lens of bird bone and identifying a number of lithic artifacts that had presumably eroded out of the bank, we dug a single test pit just inland from the eroding face. All excavated matrix from bone and/or culture-bearing layers and samples from recent layers were retained for fine screening to enable the recovery of very small artifacts and all faunal material. The recovery of any small animal bones may help deter-

mine whether the deposit of bird bone is natural or cultural in origin. Half a kilogram of fairly well-preserved bird bone (representing the remains of dozens of birds) was recovered from the single test pit. Although lithics (Figure 2) were recovered from the test pit, these were concentrated below the layer of bone, and a more extensive excavation will be required to determine if they are associated with one another.

Cataloguing and analysis of the recovered lithic and faunal materials is ongoing. So far, faunal remains consist almost exclusively of puffin and some razorbill (in line with the findings in Montevecchi et al. 2018) but also include some small fish remains. In contrast with the findings of Montevecchi et al., all elements of the bird

skeleton are represented, albeit in proportions consistent with the differential preservation of more robust elements. One large gunflint of a purple-grey chert was collected from the beach, but the remainder of the collected lithics are likely Indigenous. Identifiable tools are rare (consisting of one partial biface in two fragments and a small scraper) but flakes recovered from the fine screen samples are from a variety of different cherts and crystal quartz. A sample of weathered soapstone was collected from the eroding bank, and a significant portion of the lithic assemblage consists of small, gouged pieces of this same material - presumably the debris from soapstone carving. Aside from the surface-found gunflint, no diagnostic tools were found.

### Conclusion

This small fieldwork project on South Penguin Island has confirmed the presence of an archaeological site there, but more extensive excavations will be required to elucidate the nature of the site and the identity (or

identities) of the site's occupants. It is recommended that future archaeological projects on the island coordinate with the bird biologists to ensure that neither party unnecessarily disturbs archaeological resources or important seabird nesting sites. Given that portions of the island's coastline are actively eroding, this fieldwork should be undertaken soon to minimise the loss of a potentially very interesting archaeological site.

### **Acknowledgements**

Funding for this project was jointly provided by a grant held by Dr. Lisa Rankin at MUN and by the PAO, and we thank them for their contributions to this fun study in taphonomic zooarchaeology. Corey Hutchings graciously volunteered his time for the fieldwork. Thanks to Rex Gibbons for putting me in touch with Larry Easton, and thanks to Mr. Easton for his superb skills in getting us safely on and off the island, and for directing us to the (admittedly obvious) archaeology.

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# Survey and Mapping of the Bay Bulls Arm (Sunnyside) Cable Station Site

Deirdre Elliott  
Independent Researcher



Figure 1: West wall of eastern structure, before clearing (view north).

## Scope and Objectives

The Bay Bulls Arm Telegraph Station, near what is now the town of Sunnyside is the relay site of the first transatlantic cable message, in 1858. The cable itself unfortunately ceased to function within weeks of this first transmission, and a new station built at Heart's Content, which is now recognised as the first successful transatlantic cable station in North America. Prior to the fame it garnered as the landing point of the transatlantic telegraph cable, Bay Bulls Arm (Trinity Bay) formed part of a maritime cable network from Newfoundland to New York City. This had been in operation since 1856 when a cable was successfully laid between Cape Ray, Newfoundland, and Cape Breton Island, Nova Scotia (Briggs and Maverick 1858: 50; Dibner 1959: 894). The first transatlantic cable message was transmitted on August 16<sup>th</sup>, 1858. It was a short message from Queen Victoria in London, England, to the President of the United States, James Buchanan, followed by his reply, and then on the following day by the Queen's message in full (as a technical issue on the 16<sup>th</sup> had cut the message short) (Briggs and Maverick



**Figure 2: Western structure after clearing (view west).**

1858: 186-189). The cable would continue to transmit messages across the Atlantic for the next several weeks, until transmissions became intermittently faulty on September 1<sup>st</sup>, and then ceased entirely on October 20<sup>th</sup>, 1858 (McLean 2019: 25). By 1861 it would be unstaffed, and by the time the site was visited by James P. Howley in 1869, the structures and materials had largely been reclaimed or sold (Howley 2009: 126-127).

Ken Reynolds first recorded the Bay Bulls Arm Telegraph Station (CIAI-04) in 2007, after local resident, Robert Snook reported the site to the PAO, detailing the presence of building foundations, a fireplace, and various artifacts and fragments of construction material visible on the surface. In 2018, in coordination with the Sunny-

side Heritage Society, John Erwin (PAO) and members of the NLAS returned to the site for a half day of fieldwork. During that work they recorded sections of dry-laid stone foundations of the two cable station buildings, drainage ditches, and the more ephemeral remains (such as a possible prepared cobble pavement) of an outbuilding that may have been associated with the station's construction. Laurie McLean completed a desktop assessment of the site for the PAO in 2019, detailing known historical and archaeological references to the site and making recommendations for future research. Following one

of these recommendations,

fieldwork was conducted at the site in 2020 to document and map site features through aerial (drone) photography and photogrammetry.

**Figure 3: Cobble surface north of station buildings (view northeast).**





Figure 4: Orthomosaic map of site after clearing.

**Fieldwork Narrative**

An initial site visit took place with members of the Sunnyside Heritage Association on July 8<sup>th</sup> to establish the boundaries of the site and to determine the extent of clearing and brush removal required for the final drone mapping. The two cable station building foundations, drainage trenches, and the cobble pavement were relocated (Figures 1-3). A UAV mapping course was then flown with UAV flight-planning app *DroneDeploy*, capturing top-down and oblique images of the site. Following this site visit, a list of protocols for vegetation clearing was drawn up using the maps from drone photos captured during this initial site visit, with the goal of ensuring adequate visibility of site features in aerial view while minimizing potential disturbance to the site. Site clearing was undertaken

by members of the Sunnyside Heritage Association, and the final site visit took place on July 29<sup>th</sup>. With ground markers in place, a final UAV mapping course was flown, with top-down photos taken in a cross-hatch pattern over the site, oblique-angle photos taken around the perimeter, and additional UAV photos taken at near-ground level within and between the structures of the site. UAV site images were processed using the open-sourced UAV photogrammetry software *OpenDroneMap* to generate orthomosaic maps, DEMs, and 3D models (Figure 4). These digital products will serve as useful references for site monitoring and interpretation.

**Conclusions**

The Bay Bulls Arm Telegraph Station is a site with tremendous potential for research. As the site of the

reception and transmission of the first transatlantic cable messages, it represents an important part of the history of global communications. Unfortunately, as the cable associated with this station ultimately failed, the Bay Bulls Arm Telegraph Station has since faded into relative obscurity, and has been left out of important discussions of national and global heritage. An archaeological and historical research program focusing on understanding the hazier aspects of history, construction, and life at the station will not only improve the accuracy of world heritage narratives, but might also serve to revitalise local research and tourism initiatives.

### **Acknowledgements**

Thanks are due to members of the Sunnyside Heritage Society and the Sunnyside Town Council for their interest in the project, for facilitating site access, and for undertaking site clearing.

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# The Martin North River Site and the Saunders Phase in Labrador

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## Introduction

This paper discusses the early phase of the Intermediate Period tradition in Labrador by introducing new information from the Martin North River (FkBg-35) site in Cartwright Bay (Figure 1). The Intermediate Period (ca. 3500-1800 BP) is one of the better known periods in Innu culture history and was described in early works by Fitzhugh (1972, 1977), Madden (1976), Cox (1977), Nagle (1978), and more recently by Nielsen (2006), Brake (2006), Schwarz et al. (2014, 2016), Loring (1989, 1992), Loring and Jenkinson (2018), and Arbour *et al.* (2018), and others like Moira McCaffrey (1989), Bryan Hood (1997), Stopp (1997), Hull (2011), and Stassinu Stantec (2019). Its first appearance in archaeological literature was from several artifacts illustrated in William Duncan Strong's (1930) 'Old Stone Culture' article given to Strong by a young Jim Saunders of Davis Inlet. Like the Smooth Land Point and Saunders sites in Davis Inlet which became known through information passed on to the Smithsonian team by Jim and Maggie Saunders of Davis Inlet and Goose Bay in the early 1970s, the Martin North River site is known because Jeff, Tracey, and Wendy Martin collected and preserved artifacts they found near the mouth of the North River in Cartwright. With their collaboration and assistance from Doris Saunders and Lynne Fitzhugh, the authors studied the collection and in September 2000 visited the site. This report describes the collection, its position within the Intermediate Period, and its relationships to the Maritime Archaic, Paleo-Inuit, and Recent Amerindian cultures at a time when Arctic peoples had recently appeared on the stage of Labrador prehistory.

## Early Fieldwork

During my first field season in Hamilton Inlet in 1968, I learned that Donald Charles, formerly the long-time base camp manager of the British

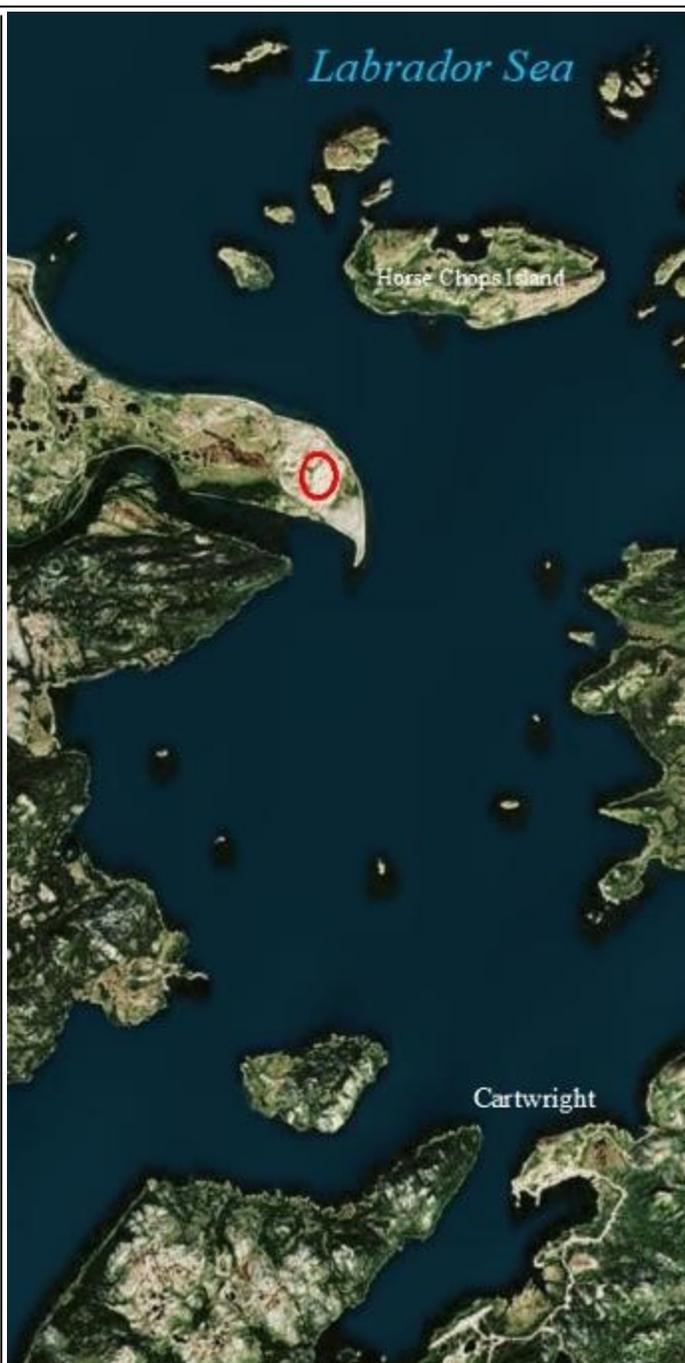


Figure 1: Cartwright at bottom, showing North River mouth below red circle (site location) (courtesy: Bing Maps).

Newfoundland Exploration (Brinex/Brinco) Company in Northwest River, had excavated and collected artifacts when he was overseeing the company's camp in the 1950s. Charles recognized that the artifacts he found in foot paths, garden plots, and Brinex cabin construction sites were scientifically important. He recorded the location of the finds, saved artifacts and flakes, and isolated collections from different localities. My frustration in trying to identify intact deposits from the scattered traces around the Brinex camp in 1968 was relieved in 1969 when I visited Charles at his home in Toronto. As we looked through his collection, comparing raw materials, tool styles, and site elevations above sea level with my finds and radiocarbon dates, I realized his collections fit neatly into gaps in the early end of my Northwest River chronology. Charles was so pleased that he donated his collection to the project. Only recently did I learn that Charles had given part of his collection to Jørgen Meldgaard of the Danish National Museum in 1956 when Meldgaard was surveying for Viking sites in Labrador and visited Northwest River, but the collection was later lost during shipment to Copenhagen (Madsen et al. 2010; S. Loring, pers. comm.). When Charles' and my datasets were integrated, the sequence anchored a 3500-year chronology for western Lake Melville that included eight culture complexes dated by elevation or radiocarbon (Fitzhugh 1972). Although the Northwest River sequence has been refined by information from coastal sites, Goose Bay (Neilsen 2006; Neilsen et al. 2020), and the Lower Churchill (Stassinu Stantec 2019), the Northwest River sequence has been central to our understanding of the post-Maritime Archaic Indian occupation of central Labrador.

Don Charles died in 1970 and never fully appreciated the importance of his collection. In recognition of his contribution, I dedicated my monograph to him and named the four sites in the 43-60-foot elevation range at Northwest River (Radio Shack, Piloski Garden, Road Site-1, and Louis Montague) the Charles complex in his honor. Two other sites from the Brinex area in NWR, Red Ocher and Brinex Bunkhouse at 24 and 21 meter elevations,

respectively, became components of the ca 3100 BP Brinex complex based on the use of broad side-notched points and red ocher. In the 1970-80s, as Smithsonian work expanded north along the coast, the distinctions between Brinex and Charles complexes began to fade. We realized that the small, spatially contiguous sites found within a few hundred meters of each other on the Brinex terraces were components of a single Saunders complex of ca. 3500-2800 BP (uncorr.) dating to beginning of the early Intermediate Period (Fitzhugh 1977; Nagle 1978; see also Brake 2006 and Neilsen 2006).

The Saunders complex is notable for several reasons. Saunders sites appear to be the first to appear after postglacial uplift brought the submerged Northwest River moraine to the surface, blocking the Grand Lake-Lower Naskaupi embayment. Rising water in Grand Lake breached the dam, creating the Northwest River outlet between 4000-3500 BP, making it a desirable hunting, fishing, and settlement locale. The high-terrace sites in Northwest River and across the river in Sheshatshiu are the earliest settlements known in western Lake Melville, which by that time had become fully forested. Few, if any, Maritime Archaic sites or traces have been found west of Rigolet, although gouges from the Northwest River Sunday Hill and Carmen Davey sites are likely candidates. The difference between the Maritime Archaic and Intermediate Period traditions is striking. Quite quickly, it would seem, 4000 years of Labrador Maritime Archaic culture with its longhouses, curated cemeteries, maritime-oriented subsistence, and technology of stemmed points, plummets, ground slate tools, absence of scrapers, and use of Ramah chert was replaced by a new way of life and probably a new wave of people. Saunders subsistence, dwelling types, and technology more closely align with the ethnographic Innu of historic times than anything that came before. Research suggesting a genetic discontinuity between Maritime Archaic and later Indian populations (Duggan et al 2017) is consistent with archaeological evidence for a major cultural change.

One of the Charles' finds from near the Brinex Dining Hall site (FjCa-4; Fitzhugh 1972:75, Plate 38a) located 21m above sea level, was a

broad, flat, wide-stemmed quartzite point nearly identical to the Mansion Inn point type described by Dincauze (1968). This point is similar to a Late Archaic point type in eastern Massachusetts related to the Susquehanna ‘broad-spear’ culture horizon (3600-3000 BP). Mansion Inn points are rare north of Maine and Nova Scotia. However, in 1969 we found a similar point at Thalia Point-2 (HfCi-2; Nagle 1978: Table 1, fig. 6m) near Nain. Made of greenish chert, this point was a surface find on a terrace containing Pre-Dorset and Saunders features dating ca. 3500-3100 BP. Although not as similar to Mansion Inn as the Brinex piece, the Thalia Point find has a tapered stem and flat flaking that resembles Mansion Inn more than points of the preceding Rattlers Bight Maritime Archaic phase. Although the two points were surface finds, their ages can be reliably estimated at ca. 3500-3000 BP based on Mansion Inn typology, association with Pre-Dorset and Saunders contexts at Thalia Point, and presence on the 24m Brinex terrace at Northwest River where we obtained a 3000 BP date on the Red Ocher site. At the least, these points serve as indicators of continuing, if sporadic, contacts between New England and Labrador following the extensive Ramah chert trade horizon that linked these regions during the MA-Moorhead era (Loring 1989, 2002, 2017).

The Brinex Dining Hall (FjCa-4) site collection was very small, and the only other diagnostic specimen was a small quartz side-notched point (Fitzhugh 1972: Plate 38d). About 80 meters to the north at a slightly higher location (24m) on the same terrace, the Red Ocher site (FjCa-38) produced convex-base, side-notched bifaces and a radiocarbon date of  $3090 \pm 180$  BP (GSC 1280; Fitzhugh 1972:81, Plate 53). Several other sites on the Brinex terrace (Radio Shack FjCa-1, Bunkhouse FjCa-33, and Puloski Garden FjCa-9) that became components of the Charles complex were later linked culturally to coastal sites like Smooth Land Point (GICe-1) in Davis Inlet, Saunders site on Tunungayualok Island (HaCf-1), Hillsbury Island-3 (HdCi-3) in Nain, and several others in Okak (Cox 1977), to form the major components of the Saunders complex (Nagle 1978; see Neilsen 2006 for a thorough Saunders

review, and Hull 2011 for a popular summary). Thus constituted, Saunders became the first substantial description of a post Maritime Archaic occupation of the central Labrador coast, with numerous radiocarbon dates establishing its 500-year tenure ca. 3500-2800 BP.

The Saunders complex has a distinct character, and its features are replicated with fair consistency across its site components. The lithic assemblage includes relatively thick round-based bifaces used as knife blades and or as blanks for lances or darts after receiving deep U-shaped side-notches with ground interiors. Sometimes the notches are low enough to be considered corner-notched, but this is rare and may date to the latter part of the phase. Stone scrapers, which are absent from Late Maritime Archaic, are present in considerable numbers as large and small keeled end-scrapers and flat discoidal forms. Small triangular points and tools on parallel-sided linear flakes also occur. Ground stone technology is restricted to polishing the cutting edges of chipped stone axes. Only two gouges have been found in Northwest River, one at the Carmen Davey gravel pit site and an excavated one from Sheshatshiu (FjCa-51; Neilsen et al. 2019) that may be part of the Saunders inventory; its form is similar to celts from Burial G at Rattlers Bight (Fitzhugh 2006), and like the latter was found with quartz pebbles. The rarity of gouges and other heavy wood-working tools in Saunders sites suggests MA dugouts may have been replaced by more versatile skin boats or bark canoes.

House types have not been identified at Saunders sites, but the large 2-3m diameter pavements composed of charred and fire-cracked cobbles, artifacts, and debitage at most coastal sites probably were at the center of large circular tents. Coastal sites may have from five to twenty hearth pavements arranged in a cluster rather than a linear string as at Maritime Archaic sites. These sites likely are summer gathering places for regional bands. Settlement locations show preference for protected bays and inner island coastal locations with sandy shores, a small stream, well-drained soil, and stands of spruce. Today many of the coastal sites are on sandy terraces whose

thin vegetation cover was disturbed by fire and camp activity, leading to subsequent blowout exposures containing hearths, artifacts, and debitage at these sites. Faunal remains are rarely preserved, but site locations suggest seals, fish, and birds were hunted, while others like sites like those of Martin and at Northwest River are on salmon rivers. Sites like those at Muskrat Falls and others on the Lower Churchill documented by CRM surveys (Stassinu Stantec 2019) demonstrate a pattern of dispersed (winter?) settlements for hunting caribou, bear, beaver and small game, as well as for fishing and hunting flocks of ptarmigan. Most of these sites, however, post-date Saunders.

### Collection History and Site Context

During a summer visit to Cartwright in the mid-1990s Doris Saunders and Lynne Fitzhugh learned about an archaeological collection made by Jeff and Tracey Martin from blowouts near the mouth of the North River where the Martins spent summers fishing, berry-picking, and cutting wood. Jeff asked if I could identify the artifacts, and in September 1997, Tracy Martin sent me photographs of chipped stone artifacts made from a variety of colored chert. At first glance, I knew the collection was not Paleo-Inuit or Maritime Archaic, and the absence of corner notching suggested it was not Recent Indian (“Ancestral Innu”) like Daniel Rattle or Point Revenge, or the proto-historic Newfoundland Little Passage complex. Rather, the leaf-shaped bifaces and side-notched, round-based points and use of multi-colored chert pointed toward the Intermediate Period Saunders complex. The picture became clearer

the following year when Wendy Martin sent more illustrations which reinforced the idea of a single component Saunders relationship. Later that month, the Martins sent the collection to the Smithsonian and provided a map and in September 2000 I visited the site (Figure 2).

The North River collection was assembled from surface collections Jeff made over several years from blowouts in the center of the North River peninsula between the North River and the bay to its north. During our 1990 visit we found debitage and fire-cracked rock in three or four concentrations in the largest contiguous blowouts. These locales had been exposed long enough for dunes to build up, and in some places charcoal, fire-cracked rock, and artifacts were eroding from the intact original ground surface buried under windblown sand. The hummocky field of sand dunes and blowouts made it difficult to determine an original site settlement pattern, other than noting that most finds were from circular areas 3-5 meters in diameter. Some areas had a more elongate distribution reaching 10-15 meters and might indicate multi-family



Figure 2: Detail of North River blowouts. (courtesy Bing Maps).

*shaputuan*-like structures such as described by Loring (1992) at Daniel Rattle. Martin and NWR Brinex sites lacked the large, densely packed cobble hearths at Saunders sites in Davis Inlet and Nain, perhaps reflecting seasonal difference. However, nothing suggested the regularized linear patterns seen at Maritime Archaic longhouse sites. The relatively thin scatter of materials suggested the North River sites were short-term salmon-fishing and sealing camps.

# Figure 3

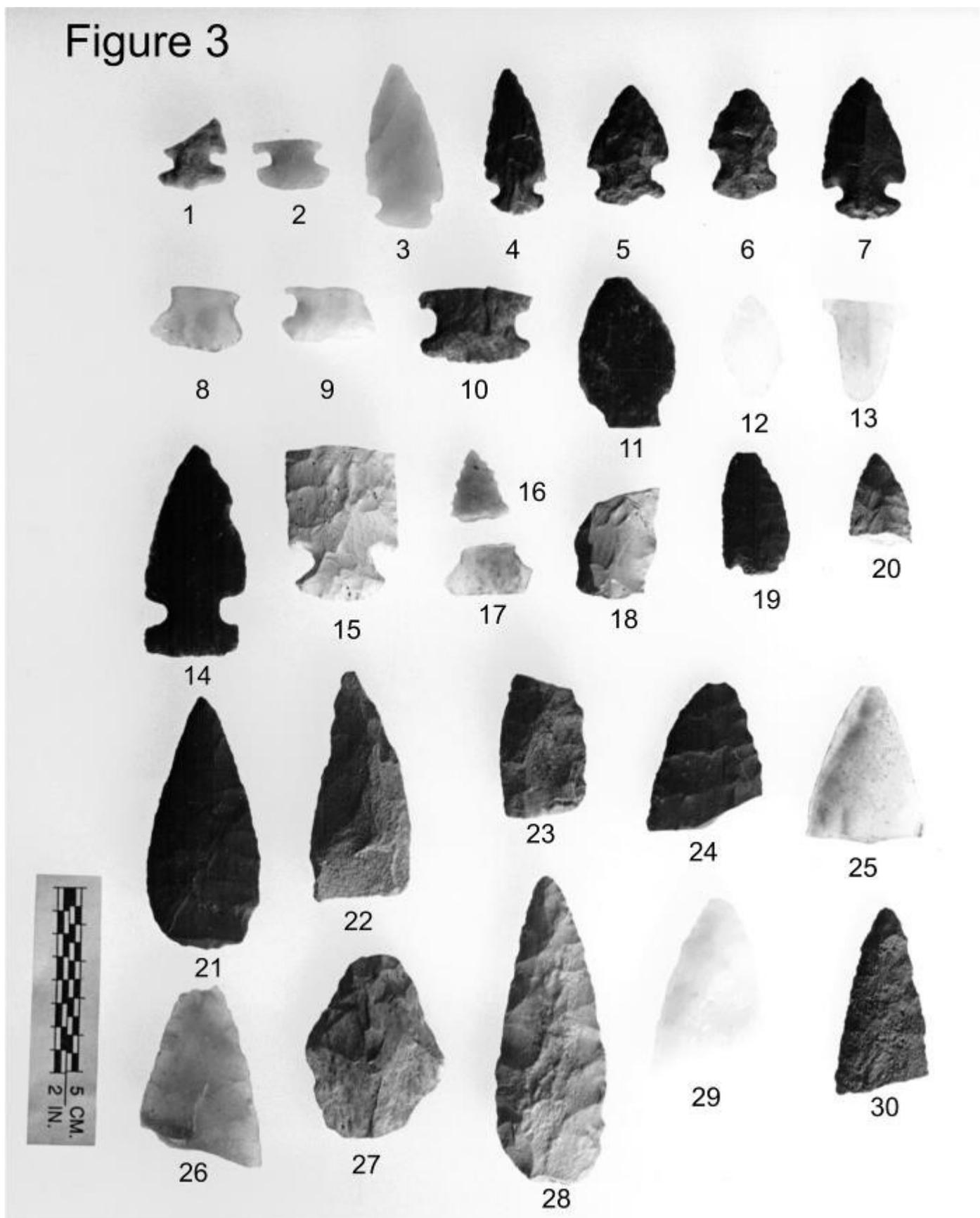


Figure 3: Bifacial points, knives, and preforms.

Figure 4

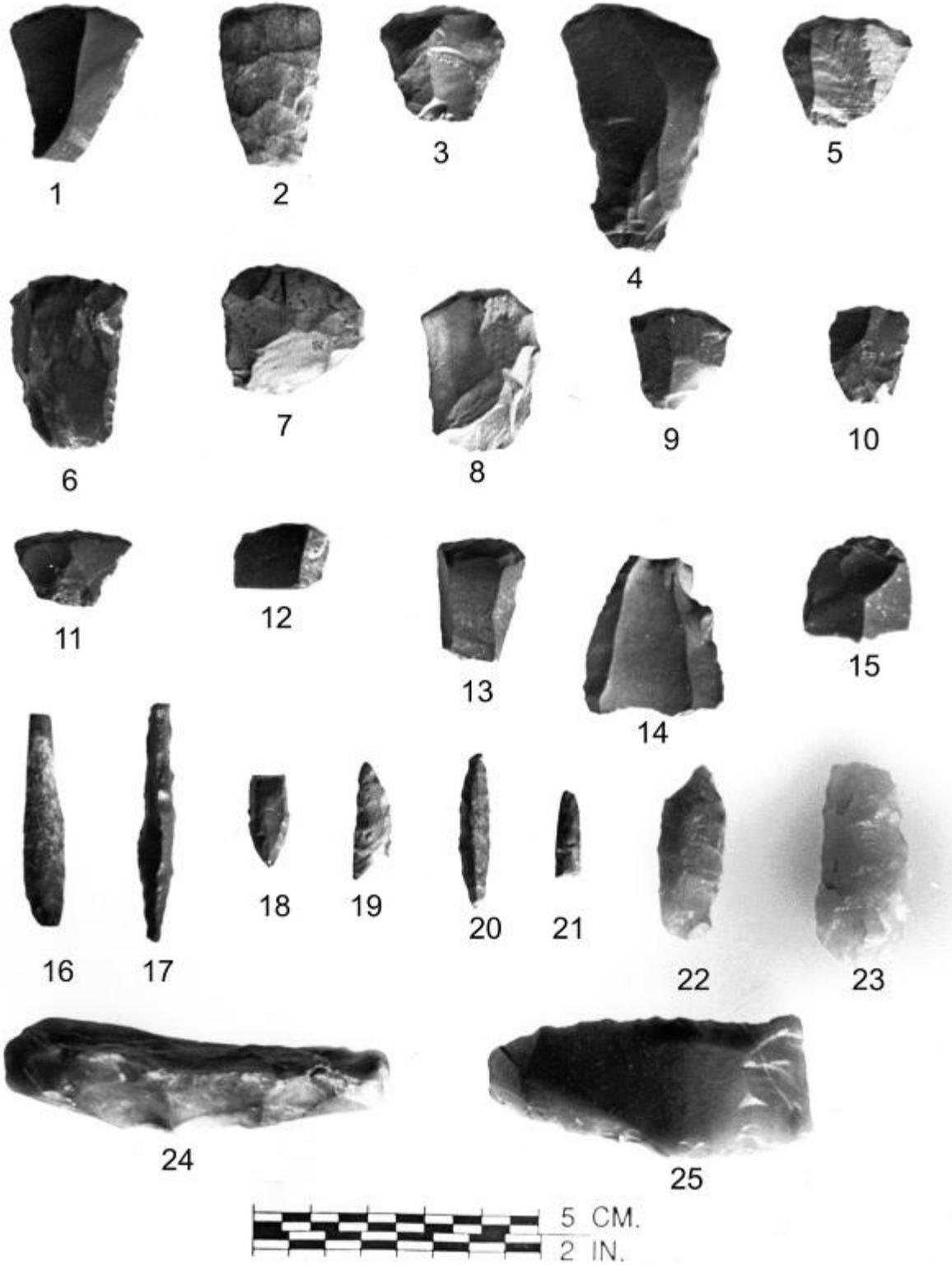


Figure 4: Scrapers, drills, and side-scrapers.

Figure 5

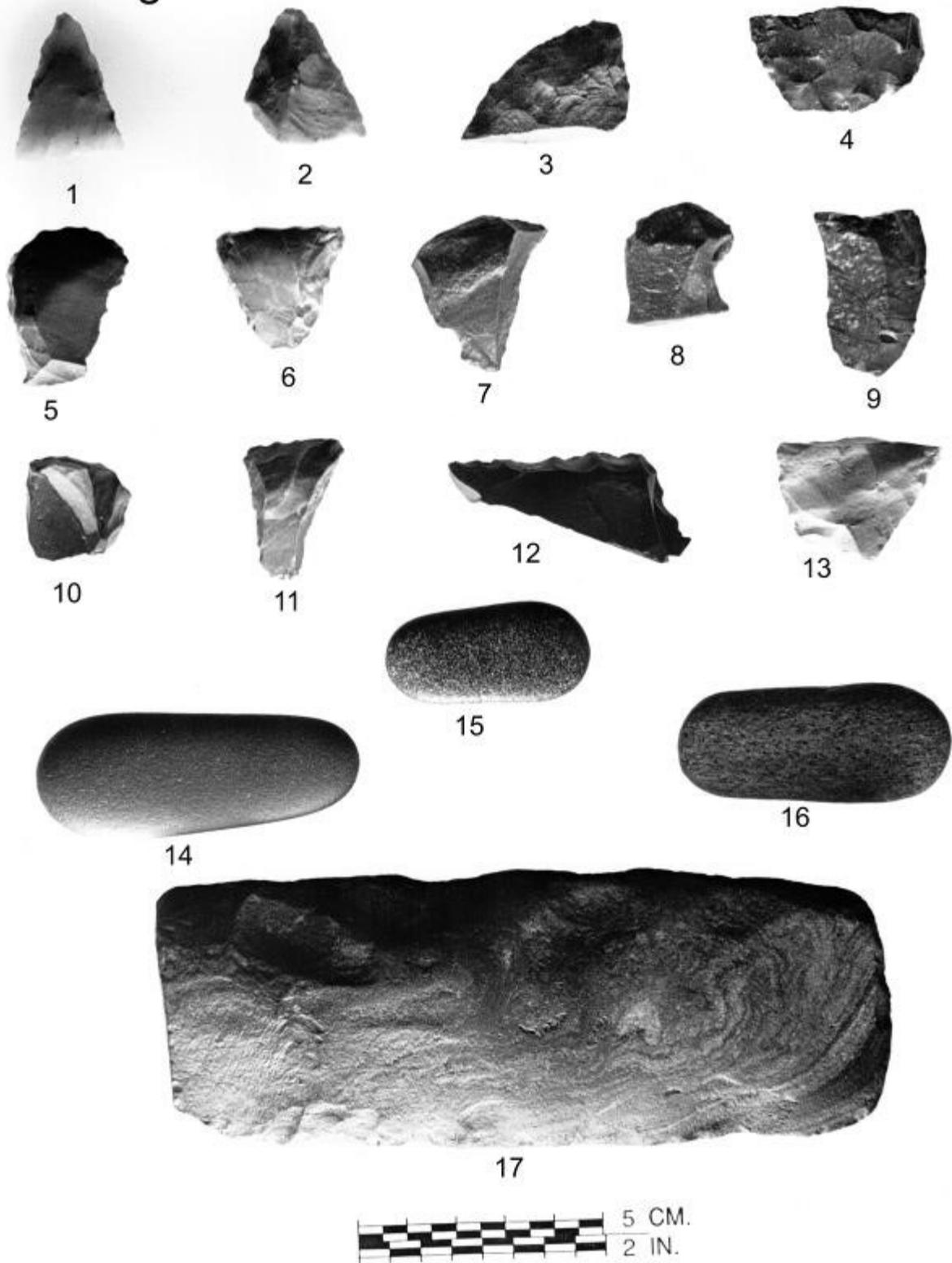


Figure 5: Flake tools, abraders, and celt.

Figure 6

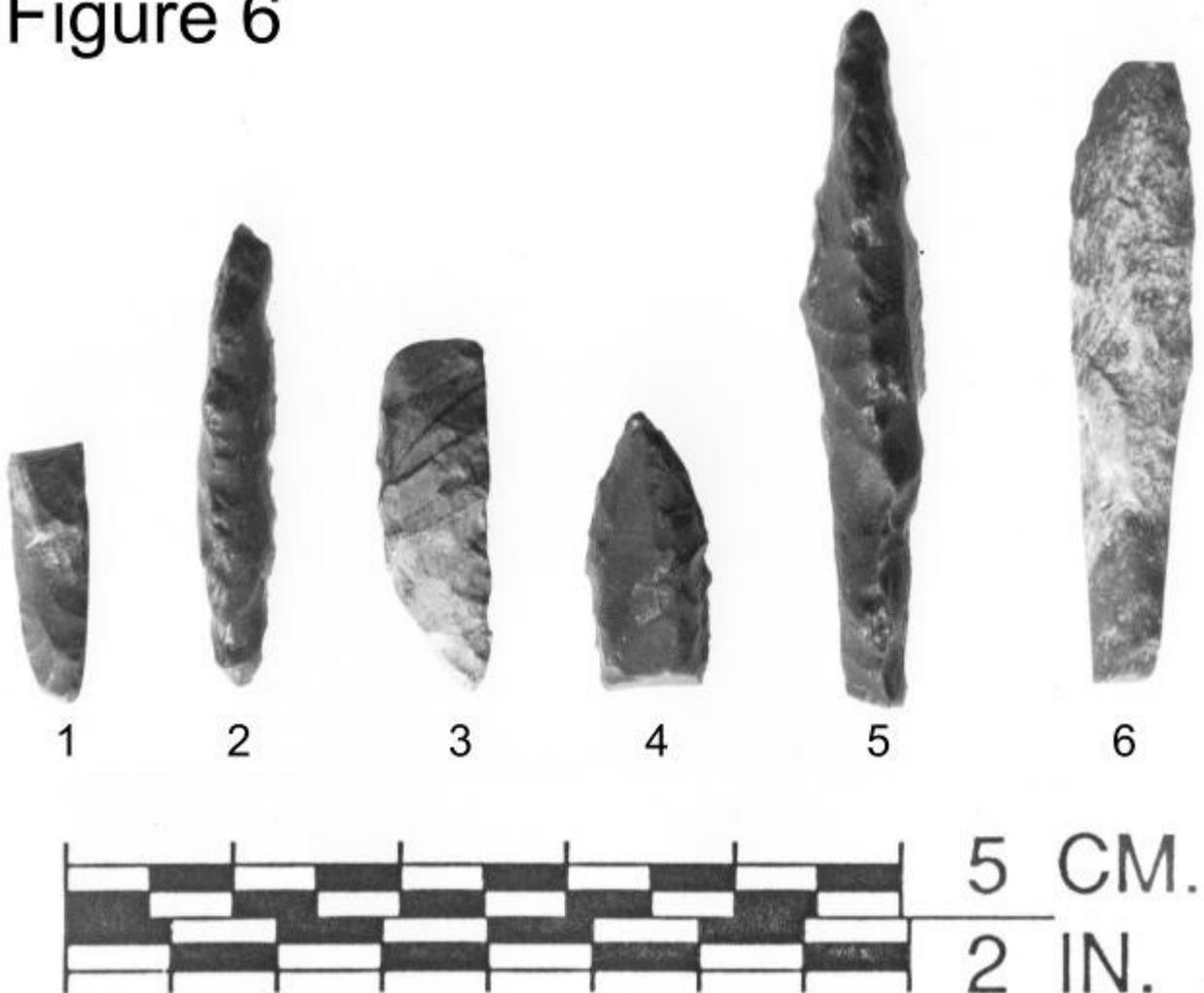


Figure 6: Flaked drills.

### Collection Description

Since the collection was gathered over several years and had not been kept isolated by find locale as Donald Charles had done at Northwest River, it was impossible to determine the original provenance of the material, and thus intra-site distinctions among artifacts and lithic raw materials. Nevertheless, during my site visit the debitage in different loci was relatively similar in composition, consisting of quartz, small amounts of red and tan quartzite, and various types of light, dark and banded chert, and fine-grained cherts ranging from green to grey, tan, pink, and purple. This type of mixed lithic raw material is typical of Saunders and other Intermediate Period sites. A

few artifacts and flakes were Ramah chert, but this material is rare at Saunders sites and these pieces could have been from earlier or later intrusions, as suggested by the presence of a large Rattlers Bight tapered stem point of Ramah chert.

Artifact types are illustrated in Figures 3-7. Several biface forms are present, all based on a leaf-shaped preform (Figure 3.21, 28) that served both as hafted knives and preforms for points (Figure 3.1-10, 14-17). Most hafted pieces have broad u-shaped notches with ground interiors and 1.0-1.5 cm widths between the notches, indicating they were hafted on knife handles, spears, or darts rather than on arrows, so we can assume bow and arrow technology was not present. Notch position

varies; side notches dominate, but some grade into corner notches (Figure 3.7-8, 15). Several bifaces are broken just above the notches, and broken tips are common. Most endscrapers (Figure 4.1-13) are made on large flakes and have triangular or circular shape and convex, steeply retouched distal ends, lateral retouch, and no corner spurs. Most were probably hafted as defleshing/dehairing tools analogous to Innu *mitshekuna*. Besides endscrapers the collection includes flake tools (Figure 5.1-13), and at least one side-notched flake used as a sidescraper (Figure 4.25). One tool type not known from other Labrador prehistoric groups is a three-sided chipped stone drill bit (Figures 4.16-21, 6.1-6). Several of these drills had laterally polished distal ends with rotary striations and unscarred proximal ends that were hafted in wooden shafts. Sites of the contemporary Susquehanna tradition also have chipped stone drills whose proximal ends are often expanded into flat tabs for better purchase as hand drills or for twist-proof hafting in drill shafts. Their primary function would have been for drilling lashing holes in wooden boats or sledges or snowshoe frames. The collection also includes a flat rectangular celt (Figure 5.17) chipped into shape with its tip ground as an axe. A few polished stones (Figure 5.14-16) may have been used as light hammerstones or for burnishing wood or leather. Figure 7 illustrates the color of a sample of representative artifacts.

### Discussion

As a group Saunders sites comprise a cohesive cultural complex dating ca. 3500-2800 BP whose lithic tool forms, raw materials, settlement patterns, and dates replicate consistently from site to site (see Nagle 1978: Table 1 and map). The complex includes several sites and collections, now including the Martin site, and is the second best described prehistoric Indian culture from the Lab-

rador coast. The largest and best documented sites are Martin at North River, Cartwright; the Piloski Garden (FjCa-9), Bunkhouse (FjCa-33), and Red Ocher (FjCa-38), and Sheshatshiu (FjCa-51) sites at Northwest River (Fitzhugh 1972; Neilsen et al. 2020), Ushpitun-2 (FhCb-04) in Goose Bay (Neilsen 2006); Marshall Falls on the Kanairiktok River (GfCc-3,4; Loring and Jenkinson 2018), Smooth Land Point (GlCe-1) and Saunders (HaCf-1) in Davis Inlet (Nagle 1978); Hillsbury-3 (HdCi-3), and Thalia Point 5 and 6 (HfCi-5, 13) in Nain (Nagle 1978), Iceberg and Black Rock Brook in southern Labrador (Madden 1976), and several sites in Okak reported by Steven Cox (1977). Sites like FhCe-5, 25, 33 at Muskrat Falls South (Stassinu Stantec 2019) have radiocarbon dates of



Figure 7: Composite Martin assemblage illustrating lithic types.

2000-1500 BP and corner-notched points that post-date Saunders, although their chert use and scrapers conform. Perhaps Saunders components will be found on higher terraces upstream from Muskrat Falls. Similarly, Loring's (1989) Daniel Rattle cache seems to belong to the post-Saunders Late Intermediate culture group despite its multi-colored cherts and Saunders-like scrapers.

Most Saunders sites are summer settlements with sheltered beach access and good hunting and fishing potential. Winter sites were probably on the near interior, at places like Northwest River, Muskrat Falls, and Davis Inlet, near the source of the colorful cherts and red quartzites they mined from as yet unidentified quarries between Seal Lake and the headwaters of Kaipokak Bay around Pocketknife and Snegemook Lakes. The near-absence of Ramah chert from Saunders assemblages, even at northern sites in Nain and Okak, suggests access to Ramah chert was either blocked by Late Pre-Dorset occupation or subject to ritual sanction connected to beliefs about showing respect to animals that were thought to

be accustomed to acceptable lithics—in this case, the colorful central Labrador cherts and quartzites. To date there is little evidence of contact or technological transfer between Pre-Dorset and Saunders groups (Nagle 1978:143; Fitzhugh 2002). Recently, however, a Paleo-Inuit endblade was found at the Sheshatshiu site in Northwest River (Nielsen, pers. comm. 2021). Hillsbury Island and Thalia Point in Nain suggest a larger and more concentrated population than the smaller, more dispersed contemporary Late Pre-Dorset groups in Okak and Torngat regions. Given the lack of contact evidence, one wonders what types of social dynamics existed between these groups.

Avoidance may also have characterized relations between Saunders and Maritime Archaic, with whom Saunders culture overlapped chronologically in southern Labrador and Newfoundland (Madden 1976; Fitzhugh 2006). Radiocarbon dates indicate that Saunders sites immediately follow the Rattlers Bight phase in Labrador, where MA dates cluster between 4000-3500 BP. Dates from Port au Choix suggest MA culture lasted until 3200 BP in Newfoundland, after which it was replaced by ancestral Beothuk complexes. It is therefore likely that the Saunders people appeared in Labrador as a new population and culture originating from the St. Lawrence valley or southern Maritimes. Its people used circular dwellings and large stone hearth pavements, rather than MA longhouse tents and shallow hearth pits, and their lithic raw materials and tool industry have no counterparts in Labrador Maritime Archaic tradition. Although we know nothing about Saunders mortuary practices, the absence of cemeteries—which is a defining feature of Late MA culture—suggests Saunders beliefs were more like those of the subsequent Innu tradition. And as noted previously, evidence of genetic discontinuity between Maritime Archaic and Beothuk populations in Newfoundland may have begun with the appearance of the Saunders complex.

Brake (2006) compared the geographic distribution of Labrador Maritime Archaic and Intermediate Indian sites and found their settlement patterns reversed, with more Intermediate Period adaptation to forest resources than during the MA period, when coastal sites predominate. However,

Brake's data included all Intermediate Period sites dating between 3500-2000 BP, whereas Saunders sites date only to the first third of this period, and its largest sites are on the coast. After 2800 BP the coast was occupied by Groswater and Dorset cultures until ca. 1500 BP, and this would account for more Late Intermediate sites being found on the Labrador interior. Nevertheless, many Saunders sites are also found on the interior, not only at Northwest River but along the forested river valleys as shown by CRM surveys for the Muskrat Falls dam project on the lower Churchill River (Schwarz et al. 2014, 2016; Stassinu Stantec 2019) and Nielsen's (2006) excavations in Goose Bay.

Countering this pattern of Saunders discontinuity with Paleo-Inuit and Maritime Archaic, there is substantial evidence for its continuity with later periods, cultures, and peoples in Labrador, and perhaps in Newfoundland, although Saunders artifacts there are rare and limited to the northern peninsula. This picture is still somewhat unclear because the archaeological evidence following the Saunders period from 2800-2000 BP lacks clear definition due to a paucity of sites, excavation, and dating. Late Intermediate Period sites in North West River like Little Lake, David Michelin, and Stuart Michelin do not provide enough information to identify a clear picture. However recent CRM surveys at Muskrat Falls South have revealed a consistent picture of Late Intermediate sites, corner-notched points, linear flakes, and 'Saunders' chert with  $c14$  dates of 2000-1500 BP. Although Saunders features are present, this leaves a gap of several hundred years between 2800-2000 filled only by sites with wide-stemmed points like David Michelin and Louis Montague, both of which seem to lean in the direction of the following Northwest River phase as known from the Sid Blake site (FjCa-24), which is dated only by a single  $c14$  date:  $1800 \pm 110$  BP (SI-1287). The absence of Late Intermediate Period and Northwest River phase sites on the outer coast ca. 3000-1000 BP is probably related to Groswater and Dorset occupation. Evidence of this cultural boundary is seen by the presence of a tiny, patinated, fully-ground tabular burin-like-tool of Middle Dorset type (2,000-1,200 BP) recovered in the Lower Churchill site FgCh-05 (Stassinu Stantec 2019:90).

This pattern seems to have continued until ca. 700 CE when Daniel Rattle and Point Revenge people, certainly ancestral Innu, re-established Indian occupation of the Labrador coast as far north as Ramah Bay, and began exploiting its quarries, building a vast trade network that extended into the Gulf of St. Lawrence and beyond. Large caches of Ramah chert bifaces like Spingle in southern Labrador and Kegashka, on the Quebec Lower North Shore date to this period, and Ramah chert pieces have been found in Middle Woodland contexts as far south as Maryland, Delaware, and Virginia (Loring 2017; Lowery 2017). Huge deposits of Ramah chert biface reduction flakes at the Shell Island site in northeastern Groswater Bay provides a glimpse of this network from a site where rough blanks of chert quarried from Ramah Bay was reduced to biface preforms more suitable for southern transport and trade (Fitzhugh 1972; Brake and Fitzhugh 2019).

Multi-year excavations at the Sheshatshiu site (FjCa-51; Neilsen *et al.* 2019) in Northwest River and CRM surveys in the Lower Churchill River (Schwarz *et al.* 2014, 2016; Stassinu Stantec 2019) help refine the definition of the Saunders construct. Sheshatshiu provides excavated context and radiocarbon dates of 3200-2800 BP augmenting evidence and dating of the Brinex and Charles sites. These research developments and growing engagement of Innu in history and archaeology prompted Arbour *et al.* (2018: 40 table) to suggest new archaeological classification for the Indian portion of Labrador prehistory: *Tsbiash Innu* for Maritime Archaic, *Shashish Innu* for Intermediate Indian, and *Innu* for Recent Indian. It seems that enough is known today to elevate the Saunders complex to *Saunders phase* status as in Neilsen (2006), including the Martin site described above. In this case the *Saunders phase* would be the earliest culture of the Early Intermediate Period (3500-2800 BP), one of whose components would be the *Sheshatshiu complex* in western Lake Melville. This would be followed by a Late Intermediate Period (2800-2000 BP) represented by the poorly-defined group (David, Stuart Michelin, Road *etc.*) on the middle terraces at Northwest River and some CRM sites at Muskrat Falls South. *Shashish Innu* could be used to describe the wider, over-

arching Intermediate Period tradition. Evidence today suggests that this tradition provided the foundation for the Northwest River phase which initiated the *Innu* tradition. The Martin site adds substantially to the *Shashish* tradition as one of its largest coastal components.

#### **Acknowledgments**

Jeff, Tracey, and Wendy Martin collected and preserved the artifacts from the Martin site and contributed information for this report. The last 3000 years of prehistory at Northwest River would have been threadbare without the contribution of Don Charles' Brinex collection and site locations. Jim and Maggie Saunders lent their name to the Early Intermediate Period cultural group by identifying sites studied by the Smithsonian in the 1970s in Davis Inlet. I thank Stephen Loring, Anthony Jenkinson, Scott Neilsen, Jamie Brake, and Stephen Hull for comments, corrections, assistance, and insight.

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# Peat Bog Excavations at L'Anse aux Meadows 2018 -2019

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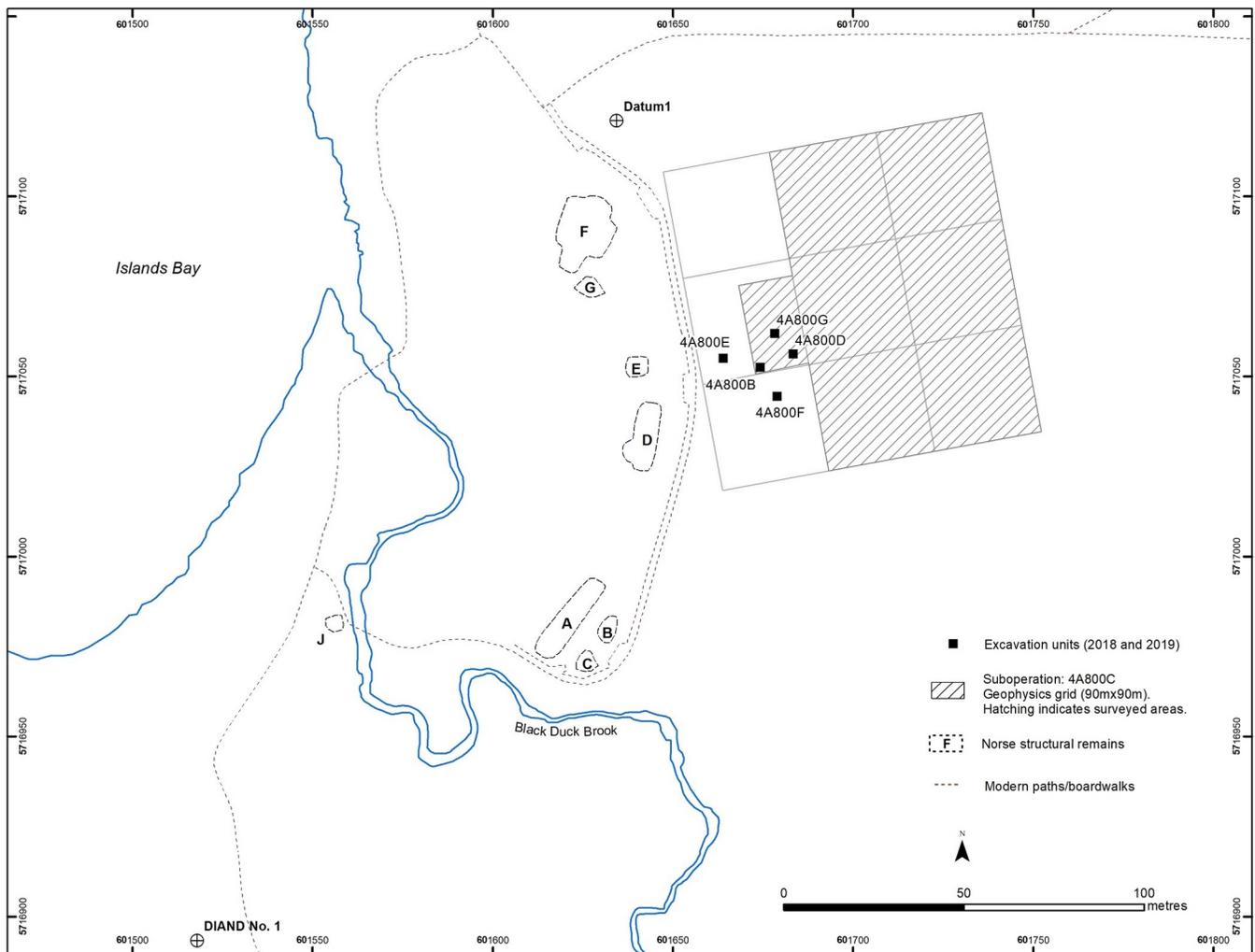
**I**ntroduction  
 This text provides an overview of archaeological work conducted during the summers of 2018 and 2019 at the L'Anse aux Meadows (LAM) National Historic Site by teams led by Paul Ledger (2018, Parks Canada permit # AM-2018-28717) & Véronique Forbes (AM-2019-33140). Here, we summarize the aims, methods, and results of both field seasons, and also recount how what was initially

intended as a single short field season to collect peat samples developed into a longer-term project.

## 2018 fieldwork

Our initial field season was undertaken as part of Paul Ledger's then postdoctoral project, the objective of which was to deploy an environmental-archaeological approach to examine the palaeoenvironmental and chronological context of human settlement at LAM. The fieldwork strategy was based on experience

Figure 1: Map showing the location of excavation trenches discussed in the report (image by Bryn Tapper).





**Figure 2: S-facing photograph showing our fieldwork area on the left, marked by orange fencing, the Visitor center at the back, the boardwalk in the middle, and the terrace bearing the Norse structures on the right.**

working on similar studies focused on Norse Greenland and Yup'ik Alaska (Forbes et al. 2020; Ledger 2018; Ledger & Forbes 2019; Ledger et al., 2013, 2014, 2015), as well as current understanding of the archaeology (Ingstad 1970; 1977; 1985; Kristensen 2012; Wallace 1989; 2000; 2003a; 2003b; 2006; 2009) and previous studies of palaeoenvironmental change at L'Anse aux Meadows (Davis et al. 1988; Henningsmoen 1977; Kuc 1975). The aim of this field season was therefore not to conduct 'classic' archaeological fieldwork (e.g. excavation or survey), but rather to recover deposits of naturally accumulating peat suitable for high-resolution analysis of fossil pollen as well as plant and insect remains. This meant selecting a sampling location where peat would be 'archaeologically sterile' (e.g. resulting from natural build-up and devoid of archaeological features), while being as close as possible to the archaeology (to capture a strong anthropogenic signal), unfrozen, and up to 90-cm deep (based on our calculation of peat accumulation rates from data in Henningsmoen 1977 and Davis et al. 1988). Once such a suitable location was found, a trench would be excavated to enable profile sampling from one of the faces of the excavation. Our first field season, which took place from 6 to 11 August 2018 and involved Paul Ledger, Véronique Forbes & Linus Girdland-Flink, is summarized in the paragraph below.

Once a core sample confirmed the presence of suitable peaty deposits c. 30m east of the closest Norse ruins, we proceeded to delimit and excavate a 150 x 120 cm area in the peat bog. To disturb as little of the site as possible, we decided to de-sod half of the permitted area in the first instance (e.g. 150 x 60 cm), which would turn out to be the full extent of our 2018 trench. At first, excavation proceeded following 10-cm thick arbitrary levels, until, at c. 35 cm below ground level, we encountered a somewhat clear and sharp boundary between the *Sphagnum* peat above, and what lied below. We thus decided to expose the surface of this layer, and at this point, we stopped following arbitrary 10-cm levels. The waterlogged nature of the deposits made observations and excavation difficult, caused constant mixing of surface materials, and made *in situ* screening impractical. To mitigate this, we decided to sample the totality of the material excavated from this point on, and used a bilge pump in an attempt to drain the trench and control water ingress. We carefully resumed excavation, but it quickly became evident that the layer was significantly different from the overlying peat. It contained occasional to frequent patches of charred plant remains, charcoal and wood fragments, and was comprised of a series of finely laminated surfaces (c. 0.5-1.0 cm thick) that appeared trampled and could be peeled away in discrete layers with the trowel. Well-

preserved woody plant remains (leaves and twigs) were common throughout, and insect remains were clearly evident. This led us to interpret this layer as a previously undocumented cultural horizon. Since the objective of our study was to sample naturally accumulating peat deposits, and we were not adequately equipped to conduct detailed archaeological investigation, we decided to terminate the excavation at c. 46 cm below ground level out of caution. We cleaned and recorded the wall profiles and bottom of the trench. We were unable to collect the samples we had originally come for, but we took small samples of peat from the eastern wall to extract short-lived plant macrofossils for radiocarbon dating and to undertake preliminary plant and insect macrofossil analysis (detailed below).

### Preliminary results of analyses on samples collected in 2018

This section summarizes preliminary data that was published in Ledger et al. 2019. Three radiocarbon dating assays obtained on short-lived plant macrofossils suggest that the cultural horizon dates from between the mid-12<sup>th</sup> to late-13<sup>th</sup> century, while the overlying *Sphagnum* peat layer accumulated from the 14<sup>th</sup> century. The analysis of pollen and associated microfossil proxies from a small peat monolith span-

ning both the cultural horizon and the natural peat reveals tree, shrub, and heath percentages that are high in respect to the aspect of the site and previous studies at LAM (Ingstad 1985; Davis et al. 1988). Probable apophytes (plants indicative of disturbance) are elevated at ca. 10% total land pollen, and the cultural horizon is also notable for the presence of a few exotics (pollen from plants not native to Newfoundland) as well as a single grass pollen (classified by size measurement as cereal-type pollen), but likely deriving from a wild grass. In terms of plant macrofossils, we recovered numerous pieces of wood, measuring up to 20 mm along their longest axis, from the cultural horizon. Although we initially interpreted those as wood debitage (Ledger et al. 2019), Dawn Elise Mooney (archaeological wood specialist) later advised that more detailed analysis would be required to confirm/infirm this. Over 200 individual seeds were recovered from a 450-ml subsample, and those that were identified include birch and dock/sorrel. The concentration of beetles is high relative to what would be expected from ‘archaeologically sterile’ peat, with 106 individual beetles (MNI) recovered from the 450-ml subsample (for comparison see Buckland et al. 2009; Forbes et al. 2020; Khorasani et al. 2015; Panagiotakopulu & Buckland, 2013; Vickers et al.,

2011 for a comparisons). The most frequent taxon is a genus of rove beetles (*Pycnogypta*) abundant on sub-Arctic archaeological sites (e.g. Forbes et al. 2017). Other notable finds include a species of rove beetle (*Acidota quadrata*) not previously recorded from the island of Newfoundland (although see Dussault et al. 2016 for archaeological records dated to the first millennium CE associated with the Pre-Inuit Dorset occupation of Philip’s Garden, also on the Great Northern Peninsula). We also identified two specimens of a pill beetle species (*Simplocaria metallica*) considered adven-

Figure 3: Planar view of the surface of the cultural horizon, showing water ingress. Paul Ledger operating the bilge pump.





Figure 4: Paul Ledger examining charred material more closely.  
Note the black greasy smear on right index finger and thumb, indicating the presence of charcoal.

Figure 5: East profile of the trench.  
The dark red brown/black layer at the base of the excavation is the 'new' cultural horizon.





Figure 6: A sample of the wood fragments recovered.

tive in Canada (non-native, and therefore introduced) (Bousquet et al. 2013).

We cannot emphasize enough that these results are preliminary. As of yet, we are unable to confirm the cultural affiliation of the new cultural horizon, although its age indicates it formed following Norse abandonment of LAM. The biogeographical anomalies identified above do not prove that any of these plant and insect taxa were introduced by the Norse, nor by the Pre-Inuit Dorset, Beothuk, or other Indigenous groups known to have inhabited the site (see Wallace 1989). At this early stage, it should suffice to say that our small dataset confirms its an-

thropogenic origin – in other words, the fact that its formation resulted (at least partly) from human activities taking place either on the spot or nearby. It also demonstrates the exciting potential of a continued investigation into the ecological legacies of the various peoples who once lived at this location. Given that our 2018 fieldwork raised more questions than answers, and since we were unable to collect the sort of peat monolith required for higher-resolution analyses, we decided to return to LAM the following year.

**2019 fieldwork**

The overall objectives of our 2019 fieldwork were to further investigate the cultural horizon encountered

Figure 7: Some of the plant and insect macrofossils mentioned in the text. From left to right: a dock seed, *S. metallica*, *A. quadrata*, *Pycnoglypta* sp.





**Figure 8: Dawn Elise Mooney using sponges to try to dry test pit 4A800G before a photograph is taken.**

the previous summer and to (finally) collect suitable peat samples for high-resolution palaeoenvironmental analyses. Fieldwork took place between the 5th and 30th August and involved Véronique Forbes, Paul Ledger, Dawn Elise Mooney, Bryn Tapper & Allan Wolfrum.

The first two weeks of fieldwork were partly devoted to mapping and geophysical survey by Allan Wolfrum in a 90 x 90 m area of the peat bog east of the terrace bearing the majority of excavated features at LAM, and which included our 2018 trench. The survey used a magnetometer, an EM38 magnetic susceptibility/conductivity meter, and a metal detector. The wet and bumpy conditions of the bog, and high vegetation in some places (including the area between the 2018 trench and the boardwalk leading to the reconstructed turf buildings), made this especially challenging. Some of the anomalies detected represent surface refuse or other recent objects, such as wires and beer can caps observed on the surface in areas not surveyed seem to indicate. The geophysical survey demonstrated the difficulties of working with the

EM38 in such a wet environment, and the results suggest future investigations would be made easier by cutting vegetation in targeted areas prior to fieldwork, if at all possible.

Our specific aims regarding the new cultural horizon were to (i) delineate its spatial extent within a 20-m radius of our 2018 trench; (ii) prove its thickness in our original trench; (iii) establish its topography; and (iv) recover a series of bulk sediment and small monolith samples for further environmental analyses and radiocarbon dating. Experience acquired from the first field season led us to implement the single context recording system (Lucas 2003; MOLAS 1994) adapted to fulfil requirements of Parks Canada's

recording and excavations procedures (Parks Canada 2005). In practice, this means that excavation proceeds by identifying the latest 'single context' (stratigraphic unit) present in plan, recording it, and then removing it in its entirety across the excavation area to reveal the preceding stratigraphic event. A Harris matrix illustrating stratigraphic relationships between each excavated unit is collated, allowing the establishment of the relative chronologies of all excavated deposits during excavation (Harris 1979). This approach is especially useful for sites with complex and deep stratigraphy (such as in urban setting, or other multi-phase sites), and also allows for higher-resolution reconstructions of the sequence of events at the site, while also facilitating systematic environmental sampling (Branch et al. 2005). What is perhaps unusual here is that we applied single context recording to the investigation of a peat bog, which is, to our knowledge, the first time this is done. This meant that each time we encountered a 'layer' of peat that was significantly different (in terms of floral composition, inclusions, texture, compaction, etc.) from what lay



**Figure 9: Our original (2018) trench (4A800B), re-opened in 2019, at the end of excavation, showing wood encountered at the bottom, and water ingress (facing W).**

above it, we attributed it a unique Lot number, and recorded and excavated it as an individual unit. For each context thus identified and excavated, we collected bulk samples for further environmental analyses, with the remainder of the peat/sediment carefully examined over a screen to allow the collection of any small item (ecofact or artifact) missed during excavation. To control water levels in our trenches, we used a bilge pump and large sponges. This required us to have at least two team members working together at any one time.

After having re-opened and removed backfill from our original 2018 excavation area (4A800B), we reached the cultural layer identified in 2018, recorded it, and excavated what remained of it. Again, we found undiagnostic cultural material (e.g. charcoal and wood debris). Only up to 5 cm remained of the cultural layer, suggesting most of it had been excavated/sampled in 2018. However, the peat below was also exhibiting a laminated structure, and contained occasional charcoal and frequent twigs and rootlets that were oriented horizontally. Our preliminary interpretation of this deposit is that it represents a transition between the cultural layer and woody peat below, but whether the formation process of this layer was natural (accumulated peat) or cultural (trampled

surfaces) will only be ascertained through further analyses (currently ongoing in the Masters project of MUN student Jeffrey Speller). To verify whether we had reached the end of the cultural material, and help us decide if we should continue excavating in this area, we decided to proceed by excavating the woody peat layer in a 40cm x 40 cm sondage. The latter contained frequent branches, twigs and roots, monocot remains and occasional wood. It was approximately 10-cm thick and laid on top of large wood fragments that may represent branches, large roots, or possibly driftwood. There was no evidence that any of these

wood remains were worked or cultural in origin. We decided to extend the sondage to expose the wood and underlying deposit, which revealed a large root or branches, laying above a deposit of silty sand with sub-angular to rounded pebbles and clay. These may possibly represent an eastern extension of the driftwood horizon and beach deposits identified by Kuc (1975) in the area located between the Norse houses and the coast of Epaves Bay.

Four additional test pits were excavated in an attempt to delineate the spatial extent of the cultural layer within a 20 m radius of our 2018 trench. Here, we only summarized our results and reported key observations. We believe we have identified the extension of the cultural layer encountered in our 2018 trench in two of the 2019 test pits: 4A800D, placed c. 8m east of the 2018 trench, and 4A800G, c. 8m north. This interpretation is based on our identification of deposits which, although largely composed of *Sphagnum* peat, were compact, of laminated structure (e.g. ‘peeling off’ from each other), and contained patches of charcoal, wood debris and twigs oriented horizontally. The other two test pits were found to be sterile (devoid of archaeology). 4A800F, to the south, revealed a similar stratigraphy as encountered in the other trenches, but contained more woody inclusions.



**Figure 10: 4A800D, located east of our original (2018) trench, at the end of excavation, showing the surface of the cultural layer (facing E).**

Apart from rare charcoal specks, no anthropogenic material was found and excavation ceased at c. 50cm below ground level, where abundant roots and branches prevented us to go any further. In 4A800E, placed west of the 2018 trench, and which was therefore the closest to the terrace bearing the Norse structures, we encountered sedge-dominated peat deposits which were, based on field observations, significantly different from that in the other four trenches. At c. 18cm below ground level, the sedge peat became laminated, but apart from rare flecks of charcoal, there was no anthropogenic material nor obvious difference between the sedge peat above and that below. However, the lower deposits included silty sedge peat, with sand, gravel, as well as bark and wood inclusions. We stopped at c. 55 cm below the surface, upon encountering sandy deposits similar to those at the bottom of our 2018 trench.

In view of the relative thickness of the cultural deposit encountered, and absence of obvious anthropogenic features or artifacts within, we decided to collect our main monolith samples from 4A800B, as this would limit further disturbance to the bog. Two overlapping large (40 x 35 x 35 cm) sampling tins were therefore inserted into the eastern wall of the excavation, and these were extracted using a cake slicer, a spade and trowels. Additional, smaller monolith

samples were collected from the eastern wall. We also decided to collect an additional large monolith in 4A800E in order to investigate the nature of well-preserved insect remains, bark and twigs that were encountered in the lower portion of this excavation trench, and also to investigate the formation process of the sedge bog in this part of the site. The tin was inserted into the western section, and the sample was extracted in the same manner as detailed above. Two smaller monoliths were collected from the eastern wall of that same trench. We also collected small monoliths from the eastern wall of 4A800D, and two more from the eastern wall of 4A800G, to extract materials for radiocarbon dating.

All in all, our 2019 fieldwork season allowed us to determine that the new cultural layer encountered in 2018 was not very thick (up to 10 cm), and we did not observe any obvious cultural feature or diagnostic artifact in any of the excavation trenches. We established that the layer was resting above woody peat that appears to have grown over deposits of wood and silty sand, which may correspond to an eastward extension of stratigraphic features observed by Kuc (1975) in the western sedge bog. This will hopefully be clarified once radiocarbon dates are obtained and environmental-archaeological analyses are completed. The excavation of four additional test pits revealed that the cultural layer extends northwards and eastwards, but that it does not seem to be present towards the south or the west, despite the main concentration of cultural remains known at the site having been found west of our working area.

**Figure 11: Trench 4A800E after removal of the monolith sample at the end of the 2019 season (facing W).**



Importantly, this fieldwork enabled the collection of a series of samples for further archaeological-environmental analyses, and to finally attain the original objective of our 2018 fieldwork. In addition to allowing an evaluation of the palaeoecological and chronological context of Indigenous and Norse occupations at the site, analysis of these samples will help us better understand the nature and mode of formation of both the new cultural deposit and the peat bog, which will inform the establishment of a strategy for future work at the site.

#### **What next?**

We were fortunate to secure funding from SSHRC for a further 5-years of research at the site. Our project, ‘Biocultural and Archaeological Legacies at L’Anse aux Meadows’, aims to reinvigorate research at the site by focusing on legacy data and continuing our environmental-archaeological analyses. Although the pandemic has largely halted work in the laboratory, and led us to cancel our 2020 field season, the analysis of peat monoliths collected in 2019 is slowly progressing, and we are hoping to be able to ‘kick-off’ the project officially this year. To stay tuned for updates, we invite you to follow the PEAT Lab at Memorial University:

[https://www.mun.ca/archaeology/research/resources/PEAT\\_lab.php](https://www.mun.ca/archaeology/research/resources/PEAT_lab.php)

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# Colliers Rock and Bareneed Rock, Conception Bay North, NL

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This report describes the brief survey and recording of two sites, each containing historic inscriptions carved onto a large rock, in the communities of Colliers and Bareneed in Conception Bay North on Newfoundland's Avalon Peninsula. The former site was first noted by Hull and Reynolds (2005) after being contacted by Colliers' resident Dennis Flynn, while the latter was brought to our attention by Port de Grave resident Norma Somerton-Gough in September 2019. Both locations were visited on September 19, 2019.

Unfortunately, the rock in Colliers had recently been moved as part of a breakwater construction and was subsequently broken into several pieces. Despite the assistance of a nearby property owner, who identified the likely locations of the now smaller rock fragments set into the breakwater, no sign of inscriptions could be found. Therefore, this report only addresses our visit and the current condition of the Colliers Rock site, as opposed to a recording and description of the historic inscriptions. Bareneed Rock, on the other hand, is in excellent condition despite hav-

ing also been moved from its original context. Inscriptions were recorded using photogrammetry and H-RTI. The data is currently being processed and once completed, will be contextualized with the 19<sup>th</sup>- and early 20<sup>th</sup>-century history of Bareneed as part of the final report submitted to the Provincial Archaeology Office.

## Background and Site Condition

The Colliers Rock (CiAh-09) and Bareneed Rock (CjAh-35) sites were targeted for survey and recording as part of the larger Avalon Historic Petroglyphs Project (AHPP) funded by the Provincial Archaeology Office, Department of Tourism, Culture, Industry and Innovation (now TCAR). It is worth noting that Bareneed rock was only brought to our attention following media coverage related to the nearby historic petroglyph site in Upper Island Cove (CjAh-29); the same coverage resulted in additional outreach by members of the general public whose information on other potential sites around the province will inform future survey and research.

Following discussions with Steve Hull (PAO) and Dennis Flynn, the authors relocated the approximate area where Colliers Rock was situated — in a small cove approximately halfway down the west side of Colliers Bay. Upon arrival at the cove it quickly became apparent that recent earthmoving and construction activities had taken place, the results of which produced upgrades to shoreline infrastructure including a breakwater of large boulders. An initial search of the area failed to locate the large boulder photographed by Hull and Reynolds (2005) upon which several un-deciphered in-

**Figure 1: Suggested original location of Colliers Rock (arrow) with recently constructed breakwater in the foreground.**





**Figure 2: Inscriptions recorded on Colliers Rock in 2005 by Hull and Reynolds. Photographs on file as part of the SRF for the James Cove 2 site (CjAh-06) at the Provincial Archaeology Office, Department of TCAR, Government of NL.**

scriptions had been carved.

It was at this point we enlisted the help of a resident in the adjacent property (immediately north of the cove) who — along with several other locals — had been curious as to the purpose of our visit. The resident was generous in his assistance and informed us of the upgrades to the cove several years previous, the original location of the inscribed boulder, and the likely locations for its remaining fragments now set into the nearby breakwater (Figure 1). Despite the help, we were unable to locate any trace of inscriptions of any kind on the exposed surfaces of the boulder fragments along the breakwater, suggesting either that surviving markings are under water or they were destroyed during the construction. Barring a major effort to dismantle parts of the breakwater and extract those fragments believed to have been once associated with the inscribed boulder, the meaning(s), age and cultural origin of these historic inscriptions will forever remain a mystery. This is rather unfortunate as the photographs taken by Hull and Reynolds (2005) show a series of un-deciphered curved lines, initials and/or symbols (Figure 2).

Later that same day, the authors travelled north to Bareneed to meet Clarence and Eleanor An-

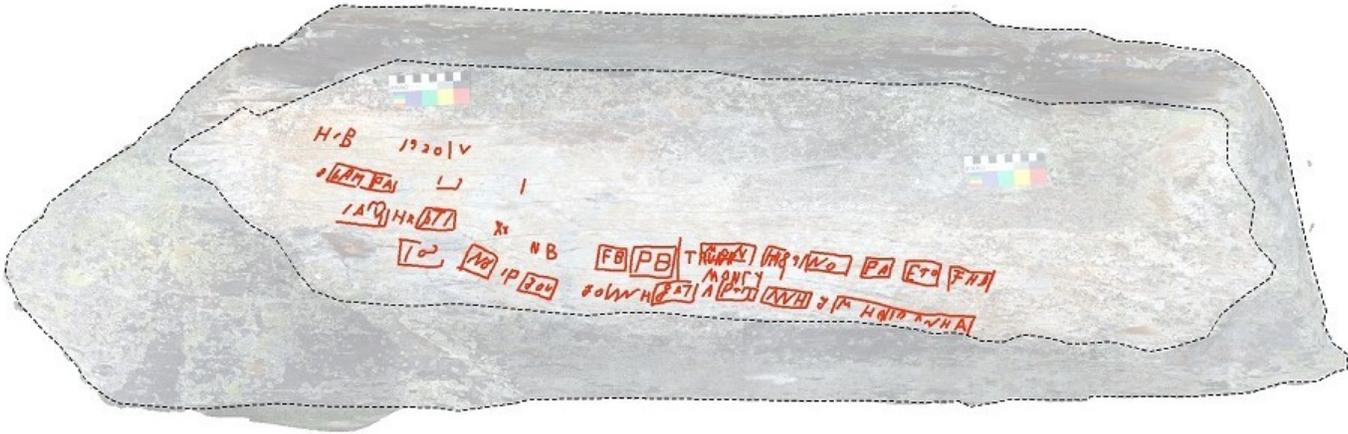
draws upon whose property an inscribed rock containing a variety of names, initials and dates currently sits. Eleanor’s sister, Norma Somerton-Gough, contacted us about the rock inscriptions. Similar to the Colliers site, the rock had been moved several decades ago from its original location some 60 metres south. Measuring 1.6m long, 0.53m wide and 0.61m deep (63” by 21” by 24”), the rock contains inscriptions on one side of the rock face, which is currently positioned in an upward facing, horizontal orientation. The inscriptions extend over a length of 0.85m across the rock surface and are arranged in several undulating lines. Generally, the

letters range between 1cm and 2cm in height (Figure 3). Whether the inscriptions were originally carved on a horizontal or vertical plane remains uncertain. The rock itself is believed to be of shale or similar fine-grained sedimentary rock based on the many laminations. It is also worth noting here that the rock surface had recently been scrubbed of overlying lichen growth so as to expose/reveal the extent of the historic inscriptions.

Clarence Andrews brought us to the rock’s original location on the south side of the Port de Grave Peninsula looking out into Bay de Grave. Visible now only in the form of field clearances and largely collapsed boundary walls of stone, this area once contained houses and gardens believed to date from the 19<sup>th</sup> and early 20<sup>th</sup> century, some of which were occupied by descendants of Jersey fishermen and their families. In fact, this part of Bareneed East was referred to in the past as “Jawsey” and was home to members of the Batten and Boone families, among others (John Newell, personal communication, Nov 2020), some of whom can likely be attributed to the initials FB, FHB, HB, RB, NB, and PB carved onto the rock. Other initials (or abbreviations) include bAM, bTI, JOU, MON, NJ, NO, PA, W(or M)H and



**B**



10cm

Figure 3: The inscribed rock at Bareened. A. Oblique view of the inscribed rock. B. Photogrammetric orthomosaic model (plan view) of the inscribed rock with the transcribed inscriptions overlain.

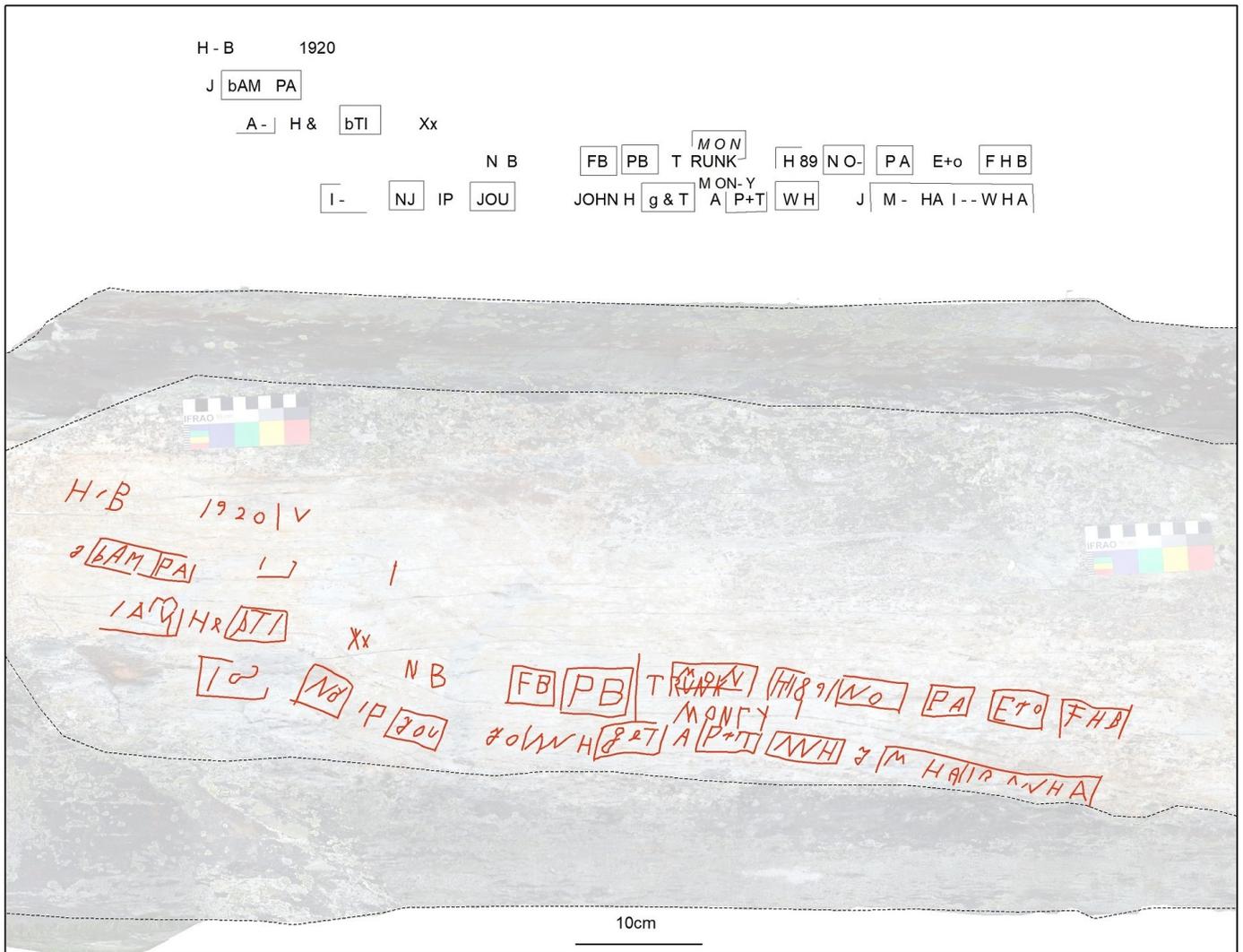


Figure 4: Preliminary transcription of the inscribed rock at Bareneed.

W(or M)HA. One personal name is clearly visible, 'JOHN H'. The words 'TRUNK' and 'MON-Y' also appear to have been incised. Two dates are also inscribed on the rock panel; the only complete date is '1920' but another abbreviated form 'H 89' probably relates to the late 19<sup>th</sup> century (Figure 4).

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First and foremost, the authors wish to thank the Provincial Archaeology Office for their continued support for the Avalon Historic Petroglyphs Project and the expanded Newfoundland Historic Petro-

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 2020 Personal Communication, November 4<sup>th</sup>.



# Excavations at the Cupids Cove Plantation Provincial Historic Site (CjAh-13), 2020

William Gilbert

Baccalieu Trail Heritage Corporation

## **I**ntroduction

Because of the pandemic, in 2020 work at the Cupids Cove Plantation PHS did not begin until 22 June. On that date the crew returned and began preparing the site for the season. The site opened to the public on 4 July and remained open for 14 weeks until 9 October. Excavations began on 17 July and continued until 19 October. As suspected, our visitor numbers were way down this year with just 798 people visiting the site. However, the reduction in visitors meant that we had more time to devote to archaeology. During our thirteen week field season we completed the excavation of two 2m x 2m units and opened and excavated another 30 square metres.

## **North Wall of the Enclosure**

In 2019 excavations in the northwest corner of the enclosure revealed four large postholes, extending from west to east at 12 ft intervals, 3 ft south of and parallel to the inner defensive wall. It seemed clear that these holes had been dug to accommodate posts for the original wooden palisade erected in 1610. John Guy wrote that the enclosure was “one hundred and twenty foot long and ninety foot broad” (Quinn 1979: 148). Since it was clear that the cellar of the original Spracklin House, dug in about 1813, had destroyed any evidence of posts that may have existed in the middle of the wall, we decided to look for more postholes farther east. We ran a measuring tape east from the centre of the westernmost posthole and across the centres of the other three for 120 feet (36.58m) and established a 2m x 2m unit (Operation 136) encompassing that point. We reasoned that, if our calculations were correct, Operation 136 should reveal another large, circular posthole marking the northeast corner of the enclosure. It did not. Instead, we uncovered a 1 foot (30cm) wide trench running from north to south and extending down into the sterile subsoil. The trench, which clearly dates to the 17<sup>th</sup> century, extended north into Operation 136 for 1.4m and ended almost exactly where we expected the posthole to be but with one difference: the dis-

tance from the western edge of our westernmost posthole to the eastern edge of the trench was 119 ft (36.27m) instead of the 120ft reported by Guy. Most of our work in 2020 focused on the area around Operation 136 in an attempt to better understand the layout of the northeast corner of the enclosure.

When we first uncovered the trench in Operation 136, we thought it might extend farther north beyond the boundaries of that unit. To determine if it did, in 2019 we established a second 2m x 2m unit (Operation 137) immediately north of and adjoining Operation 136. Although we later realized the trench did not extend that far north, excavations in Operation 137 did uncover a 17<sup>th</sup> century deposit below the plough zone. Artifacts recovered from the unit include 2 blue trade beads; fragments of 17<sup>th</sup> century window glass and case bottle glass; and a number of sherds of coarse earthenware, including Border ware, North Devon ware, West Somerset ware and Werra Slipware. These deposits appeared to extend farther down in the western half of Operation 137 and in 2020 we returned to and completed the excavation of the unit. This revealed what was at first a confusing pattern of disturbance along the western edge of the unit. A similar pattern also had been found to the south along the western edge of Operation 136. It was only when we extended the excavation farther west that this pattern began to make sense.

Proceeding on our assumption that the posts along the north wall had been placed at 12ft intervals, we again measured east from the westernmost posthole, this time for 96ft (29.26m), and established a 2m x 2m unit (Operation 139) around that point. Immediately below the surface in Operation 139 we found a buried sod layer that extended down to an average depth of 14cm. Below this, and extending down for about 16cm, was a cultural deposit that contained a mixture of 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> century material. This was removed to reveal an undisturbed 17<sup>th</sup> century deposit that extended down for another 15cm and was directly above the sterile orange subsoil. As we had anticipated, another large posthole,

measuring 18 inches (45.5cm) from east to west, was uncovered extending down into the orange subsoil exactly where we had expected it to be (Figure 1). And the remains of a narrow ditch, dug into the subsoil, could be seen running east from the posthole to near the eastern edge of the unit. In addition, the footprint of what appears to have been some sort of wooden feature was visible extending into the subsoil in the southeast corner. Like the western edge of Operations 136 and 137, the eastern edge of Operation 139 appeared to be a confusing jumble of disturbed

and part of the waterline running north about 2m southwest of Operation 136. When we first noticed the disturbance along the western edge of Operations 136 and 137, we assumed that, as it extended farther north, the waterline must have veered to the east and the disturbance was from the line. However, the disturbance along the eastern edge of Operation 139, 4m west of Operations 136 and 137, also looked like disturbance from the waterline and, according to Roger Norman, the waterline had extended straight from the well to the southwest corner of the trailer.

**Figure 1: Crew members holding posts over the four postholes at the west end of the north wall, looking east. The closest post marks the northwest corner of the enclosure; the post in the distance, near the fence, marks the location of the posthole 96ft east of the northwest corner.**



deposits.

Up until July 2011 a trailer belonging to Roger Norman's father, William (Bill), had stood at the north end of our excavation just north of what we now know was the northeast corner of the enclosure. Operation 137 is located 30cm east of the shallow pit in which Bill Norman's trailer once stood, and Operation 139 is 1.2m southwest of that pit. The trailer was installed in 1979 and, around that time, Mr. Norman dug a well about 23m south of the trailer and a waterline extending from the well to the trailer. Excavations in the early 2000s uncovered both the well

If we were correct in our assumption that all the posts in the north wall of the enclosure had been placed at 12ft intervals, then the next post to the east would be found roughly 1m east of the eastern boundary of Operation 139. However, it now appeared that much of this area had been disturbed by the waterline and other digging related to the Norman trailer. To determine the extent of the disturbance, and see if any postholes survived, we established a 2m x 4m unit (Operation 141) extending east to west from Operations 136 and 137 to Operation 139. It soon became clear that the entire area within

the boundaries of Operation 141 had undergone some major disturbance and, following further discussions with Roger and Rodney Norman, the reason for this became clear. In addition to digging the well, waterline and pit for the trailer, Bill Norman had dug into the areas immediately north and south of the pit to create earthen ramps so that the trailer could be hauled into position and the vehicle hauling it could exit from the other end. Later, the areas to the north and south of the trailer had been backfilled and, as we soon discovered, the area south of the trailer had been filled with a mixture of sand and clay that, after forty-one years, was extremely hard-packed.

It seemed our chances of finding a posthole in Operation 141 were pretty slim but, as it turned out, excavations for the trailer had not destroyed everything. Underneath the sand-and-clay fill, at a depth below surface of 45cm, we were surprised and delighted to uncover the remains of a massive posthole, 95cm in diameter. And a closer examination of the disturbance on the western edge of Operation 137 and eastern edge of Operation 139 revealed the remains to two smaller, truncated postholes that had just survived the teeth of the backhoe's bucket in 1979. At this point we had a total of eight postholes from the north wall: four to the west of the Spracklin cellar and four to the east. With the line of the north wall established, we were curious to see if any other postholes that had seemed randomly placed when they were first discovered might now fit into place. As it turned out, two did. Upon closer examination, one posthole, initially uncovered in 2001 just west of the Spracklin cellar, and another posthole, uncovered east of the cellar in 2000, lined up perfectly; making a total of ten. These postholes form a straight line from west to east for 96ft; beyond that, they veer slightly to the northeast, continuing on for another 19ft for a total distance of 115 ft (35m).

#### **East Wall of the Enclosure**

When we first uncovered the trench in Operation 136, we assumed it was evidence of slot-trench construction and had been dug to accommodate the palings, or 'pales,' for the east wall of the enclosure. If this was the case, then it seemed likely the trench would extend south for a considerable distance and possibly for the entire 90ft recorded by Guy. To determine if the trench did extend farther south, we established another 2m x 2m unit (Operation 138) im-

mediately south of and adjoining Operation 136. As was the case in Operation 136, the deposits in Operation 137 had been heavily disturbed by ploughing right down to the sterile subsoil. Still, the remains of the trench were clearly visible extending down into the subsoil. However, instead of continuing south across the entire operation, the trench ran south for another 20cm, turned southwest and continued in that direction for 1.3m.

Extending down into the subsoil in the southwest corner of Operation 138, we found part of what looked like another large posthole. To determine if this was a posthole, and to see if any trace of the east wall might have survived to the south of it, we established two other 2m x 2m units: Operation 144 adjoining and extending south from the southwest quadrant of Operation 138; and Operation 143 adjoining and extending south from Operation 144. As it turned out, the feature is indeed another large posthole and, like the one to the northwest in Operation 141, it is 95cm in diameter. Extending south from this posthole to the end of the excavation, and almost certainly beyond it, is another trench averaging about 10 inches (25cm) wide. To the west of this trench, and running south parallel to it, is a deposit of clay averaging of about 27 inches (70 cm wide). West of the clay, and running parallel to it, are three bands of silt, extending down into the sterile subsoil, that appear to be the remains of boards from some sort of wooden platform. The easternmost of these bands is, on average, 10cm (4 inches) wide, while the two farther to the west are considerably wider. At this point there seems little doubt that this posthole and trench are part of the east wall of the enclosure and that the clay and silt deposits to the west of the trench are the remains of some sort of feature erected just inside the wall (Figures 2 & 3).

#### **North Wall, East Wall, Flanker and Parapet Step**

In his letter dated 16 May 1611, John Guy reports that the defenses he erected at Cupids Cove included "two Flankers to scour the quarters" (Quinn 1979:148). Flankers are towers, or bastions, that project from the corners of defense works allowing the defenders to fire along the outer face, or flank, of the wall. Two flankers, positioned at opposite corners, would have been required to defend a rectangular defense work such as the 120ft x 90ft enclosure erected by Guy. It would only make sense that one of



Figure 2: Operation 143 looking north. The trench for the east wall can be seen to the east (right). The clay deposit is immediately to the west (left) of the trench and the silt bands are west of the clay.

Figure 3: Excavating Operation 144. The north end of the second large posthole can be seen to the north (left) in Operation 138; the trench for the east wall, the clay deposit and silt bands are visible in Operation 143 to the south (right).



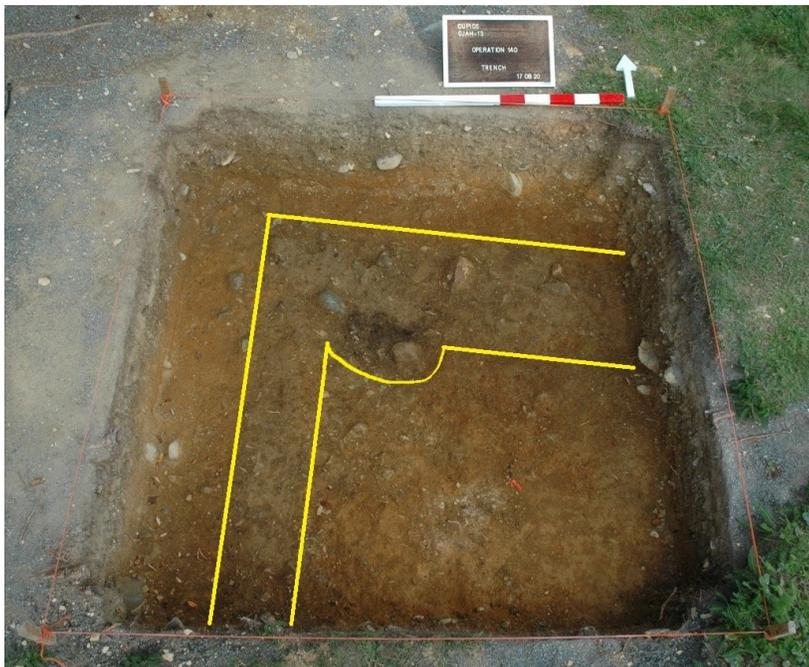


**Figure 4: View of Cupids Harbour taken from a 10ft stepladder located north of the northeast flanker. A cannon mounted in this area could easily defend the harbour entrance.**

Guy's two flankers would have been positioned at the northeast corner of the enclosure, overlooking the entrance to the harbour, and the archaeological evidence supports this (Figure 4). As mentioned above, the north wall of the enclosure extends east in a straight line for 96 ft and then veers slightly to the northeast for another 19ft. This would provide anyone standing on this last section a clear view west along the outer face of that wall. In his 16 May letter, Guy also mentions that he had erected "three peeces of Ordnance ... upon a platform made of great posts, and railles" to defend the harbour. However, this seems to have been separate from the enclosure itself. A list of supplies and equipment left at the colony in August 1611 includes not only the "3 peeces of ordinance" mentioned by Guy but also an unspecified number of "minions" (Cell 1982:66). Minions are small cannon that fire a five pound ball. Since it appears the larger cannon were mounted on a separate platform, it seems likely the minions were mounted on the flankers.

While the holes would have been somewhat larger than the posts set into them, the two 95cm

wide post holes in the northeast corner of the enclosure must have held two very substantial posts. Clearly they were meant to do more than just provide support for the palisade walls. Given their size and location, there can be little doubt they held the back posts of the northeast flanker and were intended to withstand the recoil from the cannon mounted on it. The distance between the outer edges of these two posts is just over 19ft (5.8m); the distance from the large post in the north wall to the post at the east end of the wall is 13ft (3.96m). A 13ft x19ft platform would certainly be large enough to accommodate one or two small cannon with room left over for musketeers to scour the flanks of the north and east walls. If this is correct, the posthole for the other outer post of the flanker should be located beyond our current excavation and about 13ft northeast of the large posthole at the north end of the east wall. This would make the total length of the north wall, including the flanker, about 120 ft; the same length reported by Guy. Although we cannot say for certain, it may be that the trench uncovered in Operations 136 and 138 marks the location of an earlier, temporary gun emplace-



**Figure 5: The two trenches in Operation 140 in the southwest corner of the enclosure**

ment that was replaced soon after by the more substantial flanker.

The clay and silt features extending west from the east wall are likely also related to defence. The Martin's Hundred Plantation in Virginia was established in 1619 and destroyed by the Powhatan in 1622. Construction at that site resembles the Cupids Cove Plantation in a number of ways. Excavations conducted in the late 1970s revealed that the plantation included a fort surrounded by a wooden palisade which, at 130ft x 93ft, was only slightly larger than the enclosure at Cupids Cove. Inside the palisade walls, and running parallel to them at a maximum width of about 2 ft 9 inches, the archaeologists found a series of narrow slots extending into the subsoil which they believed to have been dug to accommodate planks that formed the back of a clay-filled parapet step erected to allow musketeers to fire out over

the wall (Noël Hume 1979, 218-224). It seems likely that the 28 inch wide clay deposit next to the east wall at Cupids, and the narrow band immediately west of it, are the remains of a similar step. It may be that the wider bands to the west of these features mark the location of a wooden surface laid down behind the step to provide defenders with a solid surface on which to store powder and shot and from which to reload muskets once they had been fired.

#### **The Southwest Corner of the Enclosure**

While most of our work in 2020 focused on the area around the northeast corner of the 1610 enclosure, we also conducted some excavations in the southwest corner. Assuming Guy's statement that the enclosure was 90 ft wide to be correct, we measured south from the posthole in the northwest corner of the enclosure, and across the two postholes we have uncovered to date in the west wall, for

that distance and established a 2m x 2m unit (Operation 140). Aside from a few wrought iron nails, Operation 140 produced little in the way of artifacts. However, at a depth below surface of about 35cm, we did uncover the remains of two trenches cut into the sterile subsoil (Figure 5). A 16 inch (40 cm) wide trench extends west into the unit for 160cm ending where we had expected the south and west walls to intersect. Rather surprisingly, a second, narrower trench, averaging 8 inches (20cm) wide, extends south from the terminus of the east-west trench to beyond the boundary of the unit. There seems little doubt that the section of the east-west trench uncovered in Operation 140 marks the western end of the south wall of the enclosure. However, the trench extending south from it is somewhat more puzzling; although it may be part of the southwest flanker.

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# Archaeological Excavations at Dildo Pond 1 (CjAj-11) and survey work on Dildo Pond, 2020

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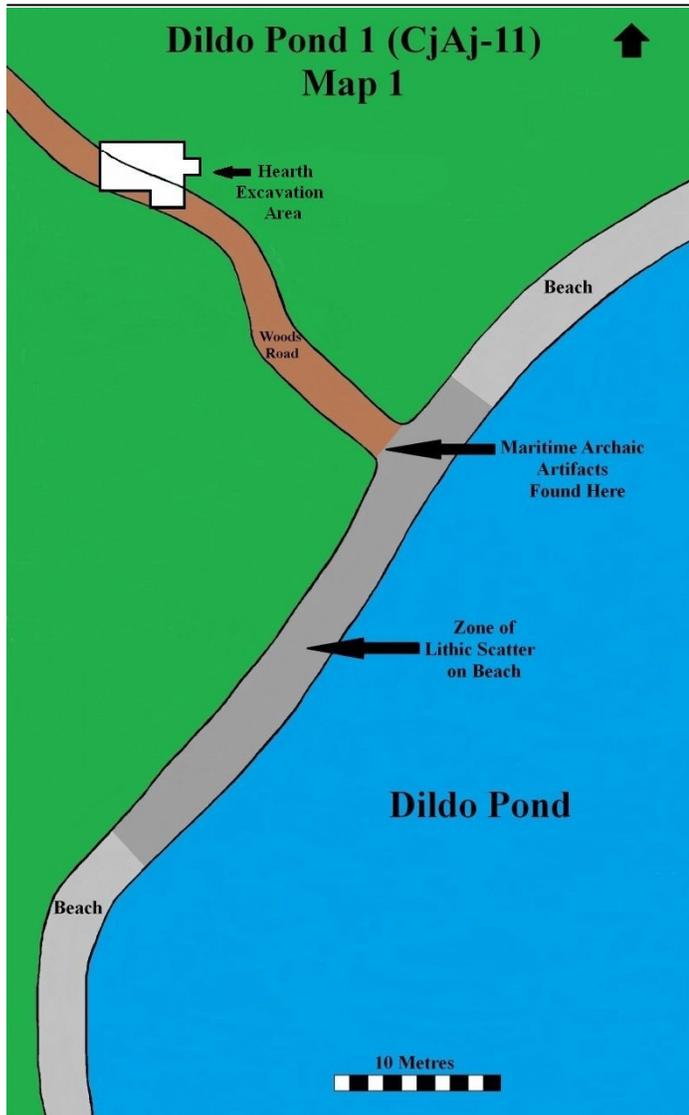


Figure 1: Dildo Pond 1 showing the area of lithic scatter on the beach and the location of the hearth excavation.

**D**ildo Pond 1 (CjAj-11) is a multi-component aboriginal site located in the northwest corner of Dildo Pond roughly 2km north of the Russell's Point Beothuk Site and 800m southeast of the bottom of Dildo Arm. It was discovered on 14 October 2017 during a Stage One Historic Resources Impact Assessment when a scatter

of lithic material was found extending along a section of beach for about 46m (Figure 1). While one or two of the items recovered from the beach may be of Pre-Inuit origin, the majority appears to be Cow Head and Little Passage/Beothuk and to range in date from between about AD 800 and AD 1650. An old woods road, still used by ATVs, runs down to the beach where this material was found. Three Maritime Archaic artifacts later were recovered from the place where the woods road opens on to the beach: the distal end of a stone adze; the proximal end of what appears to be a stone axe; and an Archaic spear point dating to sometime between 2500 and 1500 BC. Further survey work, conducted by the Baccalieu Trail Archaeology crew on 24 October 2018 revealed a concentration of lithic material in the woods road 22m northwest of the pond. Like the material on the beach, most of this concentration appeared to be a combination of Cow Head and Little Passage/Beothuk material. Fearing the deposits in the woods road might be damaged or destroyed, we returned to Dildo Pond 1 on 9 November, 2018, established a 2m x 2m unit (Unit 1) in the section of road that produced the lithics, and dug it down to sterile (Figure 2). Unit 1 produced a considerable amount of Cow Head and Little Passage/Beothuk material and, in the north and east corners, where the unit extended beyond the road and into the bank, we uncovered part of an aboriginal hearth consisting of fire-cracked rock, charcoal and calcined bone.

Since 2018 our work at Dildo Pond 1 has focused on recovering any other aboriginal material that may be in the road near the hearth and defining the parameters of the hearth itself. During a visit to the site with a group from the Newfoundland and Labrador Archaeology Society on 28 September 2019, we found several flakes in the road just west of Unit 1. Nineteen days later, on 17 October, I returned to the site with the Baccalieu Trail Archaeology crew and excavated two more units in the road: Unit 2, a 2m x 2m unit immediately east of the southern half of Unit

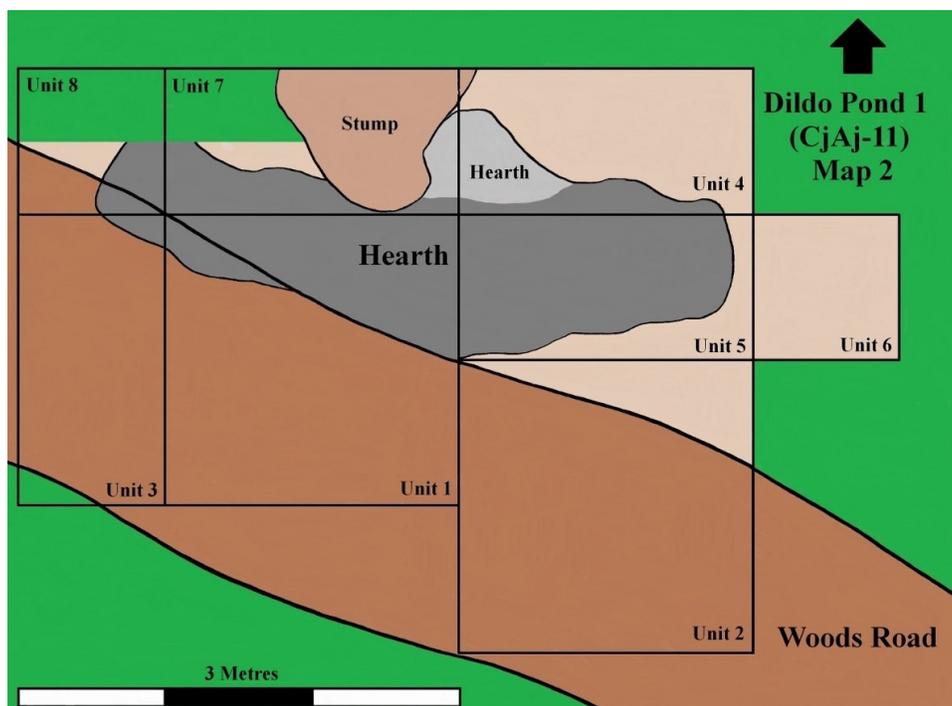


Figure 2: The linear hearth, and units opened, in relation to the woods road.

1; and Unit 3, a 1m x 2m unit immediately west of Unit 1. These units did not produce a great deal of cultural material, although we did recover a number of flakes close to the hearth in the northwest quadrant of Unit 2 and in the northern half of Unit 3.

The hearth is located on the edge of a slope; the ground dropping gradually away to the south and west. However, the ground immediately north of the hearth is fairly level. On 14 November 2019, I returned to the site and cleared away the brush from the area north of the hearth. The next day, I returned with the crew and we dug a 1m x 2m unit (Unit 4) on the level ground 1m north of and parallel to Unit 1. This revealed that the hearth extended east for at least another 1.8m and was approximately 1.2m wide from north to south. At this point it seemed clear we were dealing with a linear hearth. While by no means rich in cultural material, the section of Unit 4 that extended north and east of the hearth did produce another purple rhyolite biface, a patinated, blue chert uniface, a blue chert flake tool that may have been used as an awl, and a number of flakes (Gilbert 2017, 2020).

In 2020 we returned to Dildo Pond 1 for two days: 23 & 30 October. Our objective was to expose the rest of the hearth and determine its size and orientation. On 23 October we opened two more units: Unit 5, a 1m x 2m unit between Units 2 and 4; and

Unit 6 a 1m x 1m unit immediately east of Unit 5 (Figure 2). On 30 October we opened two more units: Unit 7, a 1m x 2m unit immediately north of Unit 1 and west of Unit 4; and Unit 8, a 1m x 1m unit immediately north of Unit 3 and west of Unit 7. We also completed the excavation of that part of Unit 2 that extended north and east beyond the road into the bank; and conducted more excavations along that part of the road that intersected with the hearth in an attempt to better define the edge of the hearth in this area.

Much of the eastern half of Operation 7 was taken up by a large stump that could not be removed without damaging the

hearth; and the northwestern quadrant of Operation 7 and northern half of Operation 8 were left unexcavated due to lack of time. Still, we succeeded in uncovering the entire hearth except for a small section at the western end that extends north into the unexcavated sections of Operations 7 and 8. As we expected, the hearth is linear (Figures 3 & 4). It runs from east to west for 4.2m and averages 1.2m wide, north to south. Beneath it, and extending north from it just east of the stump, is what appears to be an earlier, smaller hearth. Although ATV traffic along the road has damaged, and may have destroyed, part of the hearth that extended into it, on closer inspection we were pleased to discover that at least part of the hearth extending southwest into the road had survived.

Clearly, traffic along the road has caused considerable damage to the cultural deposits south of the hearth. Any stratigraphy that may have existed in this area has been destroyed, artifacts have shifted from their original locations, and it is possible some artifacts, exposed by the traffic, may have been found by passersby and taken away. This may, in part, explain the paucity of cultural material immediately east and west of Unit 1. However, Unit 1 has undergone similar disturbance and still produced a considerable amount of material. Even those undisturbed areas to



Figure 3: The linear hearth fully exposed, looking southeast.



Figure 4: The linear hearth looking west.

the north of the road along the eastern half of the hearth, in Units 2 and 5, produced little in the way of lithics or other cultural material; and Unit 6, immediately east of the hearth, produced almost none. Obviously not all activities produce lithic debitage, and we should be careful not to interpret a lack of such material necessarily as a lack of human activity. However, it does seem that there was a lot going on in the area just south of the western half of the hearth. The lithics recovered from the area in Unit 4 to the north and east of the hearth attest to some activity there as well.

Often when linear hearths are found by archaeologists they are interpreted as having been located inside ceremonial structures, similar to the shaputans erected by the Innu of Labrador, and to have been used in a mokoshan-type feast honouring the spirit of the caribou (Pastore 1986:221). While this is almost certainly true in some cases, such as the substantial linear hearth found at Boyd's Cove, it seems clear that not all such hearths were used in this way. The large Cow Head linear hearth (Hearth 1) found on Dildo Island, 4 miles (6.4 km) north of Dildo Pond 1, and dating to circa AD 800, clearly was not inside a structure (Gilbert 2003, 2006). The focus of activity around outdoor fires depends to a considerable degree on wind direction with people generally congregating downwind to avoid the smoke. Artifact distribution around Hearth 1 on Dildo Island was concentrated on the western side of the hearth, apparently to avoid the smoke from the westerly winds. Similarly, the concentration of artifacts just south of the western half of the hearth at Dildo Pond 1 suggests it was used mostly at times when the predominant wind was from the west, southwest or south.

Another indication that Hearth 1 on Dildo Island was not inside a building is that, instead of being constructed on the level ground to the east, it was built on the edge of a slope, the land immediately to the west rising first gradually, then rapidly, to a height of about 1.8m (Gilbert 2003a). As we have seen, the hearth at Dildo Pond 1 also was built on the edge of a slope although, in that case, it was constructed at the top of the slope, the ground dropping away to the south and west. While the locations of these hearths preclude them having been enclosed within structures, their positions in the landscape probably served a practical purpose: the bank to the west of the Dildo

Island hearth would have sheltered those using it from the westerly wind; while, being elevated, the Dildo Pond 1 hearth may have made it easier for anyone standing south or west of it to use.

Of course, the fact that these hearths were not inside structures does not preclude the possibility of some ritual activity, and, given the nature of hunter-gatherer societies, it seems almost certain some rituals were associated with their use. But they also served a practical purpose: facilitating the rapid processing of large quantities of food. At Dildo Pond 1 the most likely source of this food is the caribou that passed by and swam along the pond during their spring and fall migrations. But we should be careful not to always associate linear hearths exclusively with caribou. It is worth noting that one of the linear hearths at Russell's Point, Hearth 10 radiocarbon dated to between A.D. 1250 and 1305, produced exclusively beaver bone, while seal comprised 50% of the identifiable bone from Hearth 1 on Dildo Island. Somewhat surprisingly, the next most common type of bone was beaver at almost 34% of the total. Only 5.6% of the identifiable bone from Hearth 1 on Dildo Island was caribou (Gilbert 2003b, p.83 & 125; 2006, p. 4).

The question of whether the Dildo Pond 1 hearth was constructed by Cow Head or Little Passage/Beothuk people still remains unresolved: material from both cultures having been found associated with the feature. This probably will remain the case until the hearth can be excavated and some radiocarbon samples recovered and analyzed. However, it seems to me likely that this is a Cow Head hearth that was later reused, and possibly added to, by Little Passage/Beothuk people. There appears to be no other reason for artifacts from both cultures to be concentrated on the edge of the site in an area that, without the hearth, would seem to have little to recommend it.

#### **Survey Work, Dildo Pond**

On 18 October 2020, I went for a walk down the old railroad track (the Old Track) on the east side of Dildo Pond opposite Blaketown. On my way back, I stopped into a small cove on the eastern side of the pond, not far from the bridge at Holiday Hill, and about 2.8 miles (4.5km) south of Dildo Pond 1. The cove was included in the survey of Dildo Pond conducted by myself and Ken Reynolds in 1988 (Gilbert

and Reynolds 1989) and, since I started work in the area in 1994, I have visited the spot hundreds of times. Nothing of archaeological significance had ever been found before but on that day I decided to walk out into the pond to wash the mud off my rubber boots and, when I turned around to walk back, I noticed something on the beach just at the waterline. Picking it up, I discovered it was the mid-section of a large chert biface. It had clearly been in the water for some time



**Figure 5: Biface mid-section found on a beach 2.8 miles (4.5km) south of Dildo Pond 1.**

and, while the surface now has a dark grey-brown patina, similar to the beach rocks in the pond, the underlying fabric appears to be patinated white. Given the lack of context, and the fragmentary nature of the piece, it is difficult to assign it to a particular culture. It is clearly not Pre-Inuit but could possibly be Maritime Archaic, Cow Head, Beaches or even Little Passage. However, the high degree of patination suggests considerable antiquity. Maritime Archaic artifacts found at Dildo Pond 1 and Anderson's Cove

also are highly patinated. So this may be an Archaic artifact.

To investigate further, I returned to the cove on 13 November. A short woods road runs west from the Old Track to the cove and a small stream empties into the pond about 40ft (12m) north of the woods road. The land extending north from the stream is marshy for some distance, as is the land between the stream and the woods road. However, south of the road is a wooded point, measuring

roughly 170 ft (52m) from north to south at its base, and extends west into the pond for about 70ft (21m). I spent some time examining the beach and dug ten test pits on the point south of the woods road but found no other cultural material. Test pits were also dug on this point during our 1988 survey and no cultural material was recovered. While it is still possible further testing may produce evidence of an aboriginal presence; testing to date suggests that, if it does, it likely will be confined to a small area.

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# Preliminary report on the Harbour Main cannon

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Heritage Foundation of Newfoundland and Labrador



Figure 1: Catherine Ann Kelly (left) and Maryssa Barras (right) standing behind the Harbour Main cannon.

At the October 4, 2020 meeting of the Town of Harbour Main-Chapel's Cove-Lakeview Heritage Committee, for which Heritage NL staff were present, a number of potential local heritage projects were discussed including the possible restoration of an old cannon. Subsequently, at the request of the heritage committee, on Wednesday, November 25 Heritage NL staffers Dale Jarvis and Maryssa Barras went to Harbour Main to assess the cannon (Figure 1) with the help of heritage committee volunteer Catherine Ann Kelly.

The cannon is located in Harbour Main, near Saints Peter and Paul Parish Church, at the top of a small, but high, rocky hill, that is overgrown with

thick moss and groundcover. The site is well-known to locals, and was a place where children regularly played when a school existed nearby. The cannon is partially buried in the moss and brush, which covers its vent. While assessing the site is made difficult due to the thick ground cover, there are no clear archaeological features near the cannon. Trees block what would otherwise be an excellent view of the surrounding area from the top of the hill.

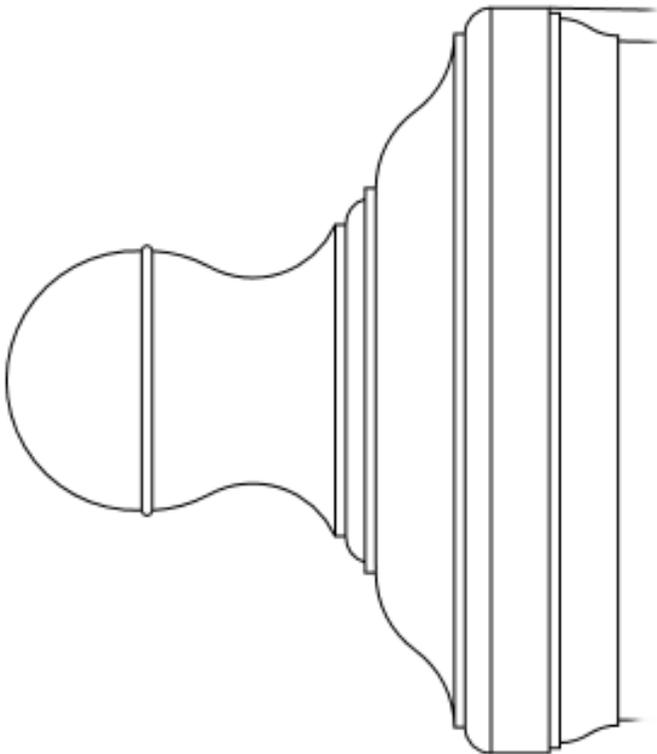
Barras and Jarvis measured the cannon [see Appendix One below], which has been rotated 90 degrees along its horizontal axis, so that the cannon rests on its port trunnion (if it remains). The starboard trunnion, which would otherwise point up-

wards, is missing. According to local history, the cannon was “rotated” in living memory. It is uncertain if that means rolled or spun around so the muzzle points in its current direction - although it is unlikely for the cannon to have originally pointed inland. There is no identifiable cast cypher on the top face of the cannon, although there are aiming guide markings along its cascabel [also written ‘cascable’]. The cannon is roughly 7 ½ feet long (230 cm) with a bore diameter of 4.3 in (11cm), which, combined with cascable shape, suggests that it was cast as a British 9-pounder Armstrong-Frederick pattern gun (see Collins):

It was with these guns that the British fought the American War of Independence. Because the external features of the Armstrong pattern were largely retained across the many redesigns, these guns are generally known as Armstrong guns but more accurately its the Armstrong-Frederick pattern of 1760 which survive in large numbers today. They are most easily identified by the characteristic Armstrong cascable design (Collins “Armstrong”).

The Armstrong-Frederick pattern was formalized in 1764 by the British Board of Ordnance as part

**Figure 2: Armstrong pattern cascable diagram 1760, by AR Collins.**



of the establishment of artillery pieces, who 'ordered five lengths and weights of 9-pounders, including a 7 1/2 foot version be designed (McConnell 84).

In 1780, Thomas Blomefield became Inspector of Artillery and, between 1782 and 1785, carried out a general reproof of ordnance in his department, rejecting nearly half of them. In 1787 cast iron guns of Blomefield's own design were made, with significant alterations to the Armstrong design, including adding a ring to the cascable which allowed free movement of the breech ropes, used to restrict the gun's recoil aboard ship (Collins “British”). By 1792 gunfounders were mostly all using Blomefeld’s “new pattern ordnance” (Lavery *cited by* Collins). The Harbour Main cannon features a chace astragal band, which was rarely used after c.1810 (Gooding).

Based on this preliminary research, we can suggest the cannon was cast at some point during a roughly thirty-year period between 1760-64 and 1792, by which point most newly-cast 9 pounders guns were of the Blomefield pattern. The reason for its place and position in Harbour Main, however, is unknown and remains subject to future research.

**Acknowledgments**

Catherine Ann Kelly, Harbour Main; Dr. AR Collins; Jamie Brake, Provincial Archaeologist; Chris Martin, Historic Sites Officer; Robin Martin, Newfoundland East Field Unit, Parks Canada.

**Figure 3: Detail of Harbour Main cannon, showing cascable.**

Source: Heritage NL, 25 November 2020.



Armstrong pattern 9 lb, barrel length 7½ ft

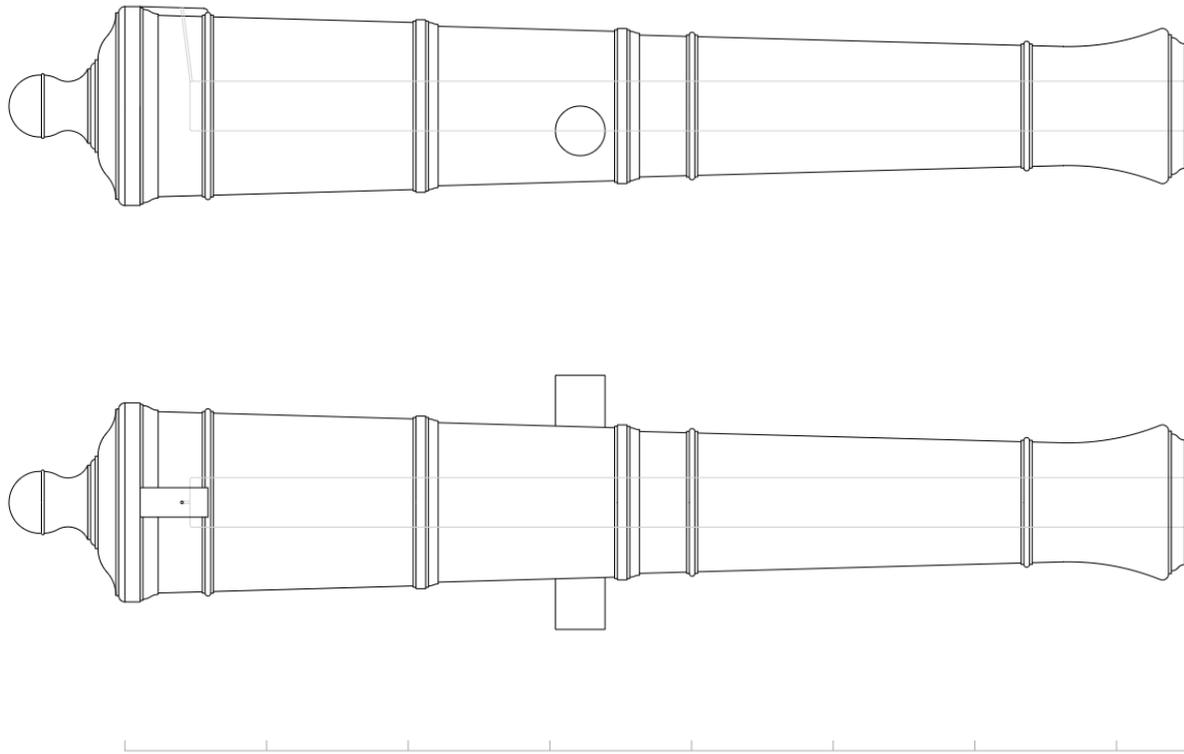


Image 4: Example of the Armstrong Pattern, courtesy of AR Collins.

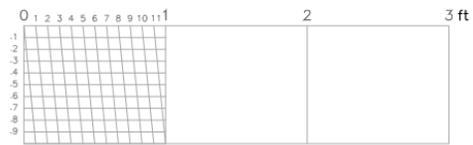
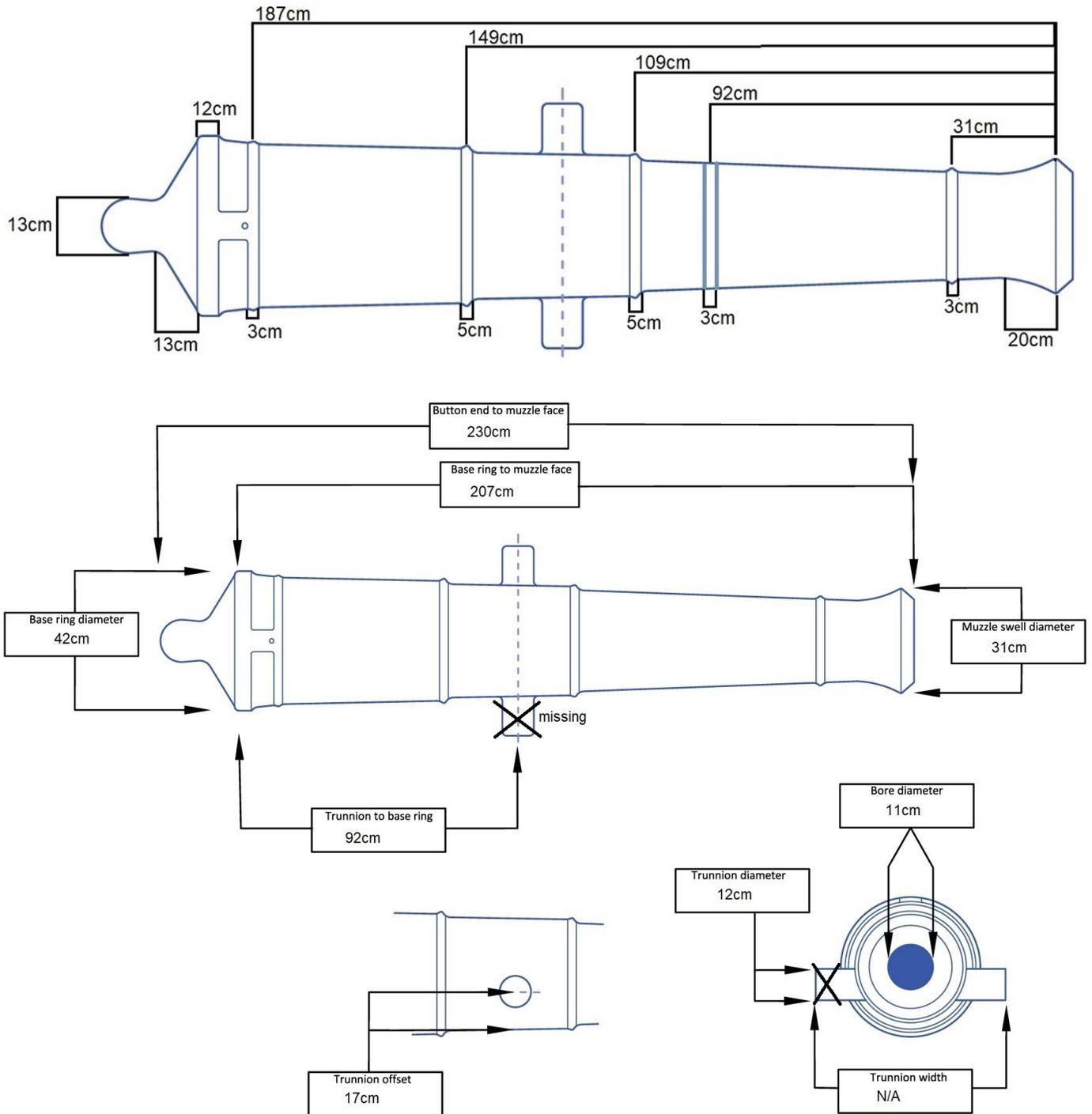


Figure 5: Detail of Harbour Main cannon, showing removed trunnion.  
Source: Heritage NL, 25 November 2020.



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**Appendix One - Field Measurements of the Harbour Main cannon**

Date of Recording: November 25, 2020

Recorded by: Maryssa Barras, Dale Jarvis

Cannon is aligned 40 deg. NE.

Notes: Looking from the breech end of the cannon, the right hand trunnion is broken. Trunnion measurement taken from base mark. Cannon is very rusted, no markings found. Cannon is embedded in moss and overgrowth, with right-hand trunnion facing the ground. Vent was only partially visible, vent size is 1cm, distance of vent to breech is 12cm.

Muzzle Type: Tulip

Cascable Type: Conical

Button Type: Spherical

Moulding Type: Astragal

The cannon features 3 astragals: first reinforce; chace; and muzzle.



# Tshiash Innut at Kamestastin and Sheshatshit Tshikapisk Archaeology 2020 Research

Anthony Jenkinson, Stephen Loring & Chelsea Arbour  
Tshikapisk Foundation, Smithsonian Institution, Memorial University

The Tshikapisk archaeological initiative has, since 2000, sought to create opportunities for situating discussions of the early history and heritage of the Innu and to incorporate Innu perspectives and values in interpretation of Innu history (Arbour, Ashini, Jenkinson, and Loring 2018). Research at Kamestastin was initiated in 2000 as part of an environmental land-use review prior to the construction of a facility that sought to provide experiential education opportunities for Innu youth. While many of the program's aspirations for a formal sustained Innu educational facility at Kamestastin have not yet come about, Tshikapisk inspired projects and programs, some centered on ecology but most significantly on archaeology and cultural heritage (Figure 1), have provided training opportunities for Innu

youth and facilitated opportunities both for Innu and for researchers from away (from the Smithsonian, from St. Mary's University, and Memorial University among others) to interact and engage with Innu in research into Innu heritage and the Innu/Iyu homeland of Nitassinan (the Québec Labrador peninsula).

Tshikapisk archaeological research took place at two localities in 2020: at Kamestastin, principally at a new component of the Mistanuk-Mistamunik Site (GICs-08) which we named the Napanakapeu Component (in Area B), and in Sheshatshit at the site of an ancient camping place (FjCa-79) on the 33 metres a.s.l. terrace which was discovered in the fall of 2016 during an earlier test pitting program.

## Archaeology at Kamestastin Mistanuk Mistamunik

The Mistanuk Mistamunik site (GICs-08) sits on a steep sided high bluff bordered to the east by the largest brook which empties into Kamestastin's outflow narrows and to the south by the north side shore of the same narrows. Over the past two years the principle archaeological activity at GICs-08 has been the excavation of a five by seven metre area on level ground beside the small moraine which is the highest point of the site. This excavation in Area B of GICs-08, to which we attached the name Napanakapeu, revealed an occupation aligned southwest to north-east defined by flake scatters, red ochre staining, calcined bone deposits, and combustion features within a space bordered by paired medium sized boul-

**Figure 1: Bifaces from Shukapesh 2 site (FjCa-79,) on Sheshatshit high terrace. The lanceolate projectile point on the far right evidently broke during work to reduce and thin it.**



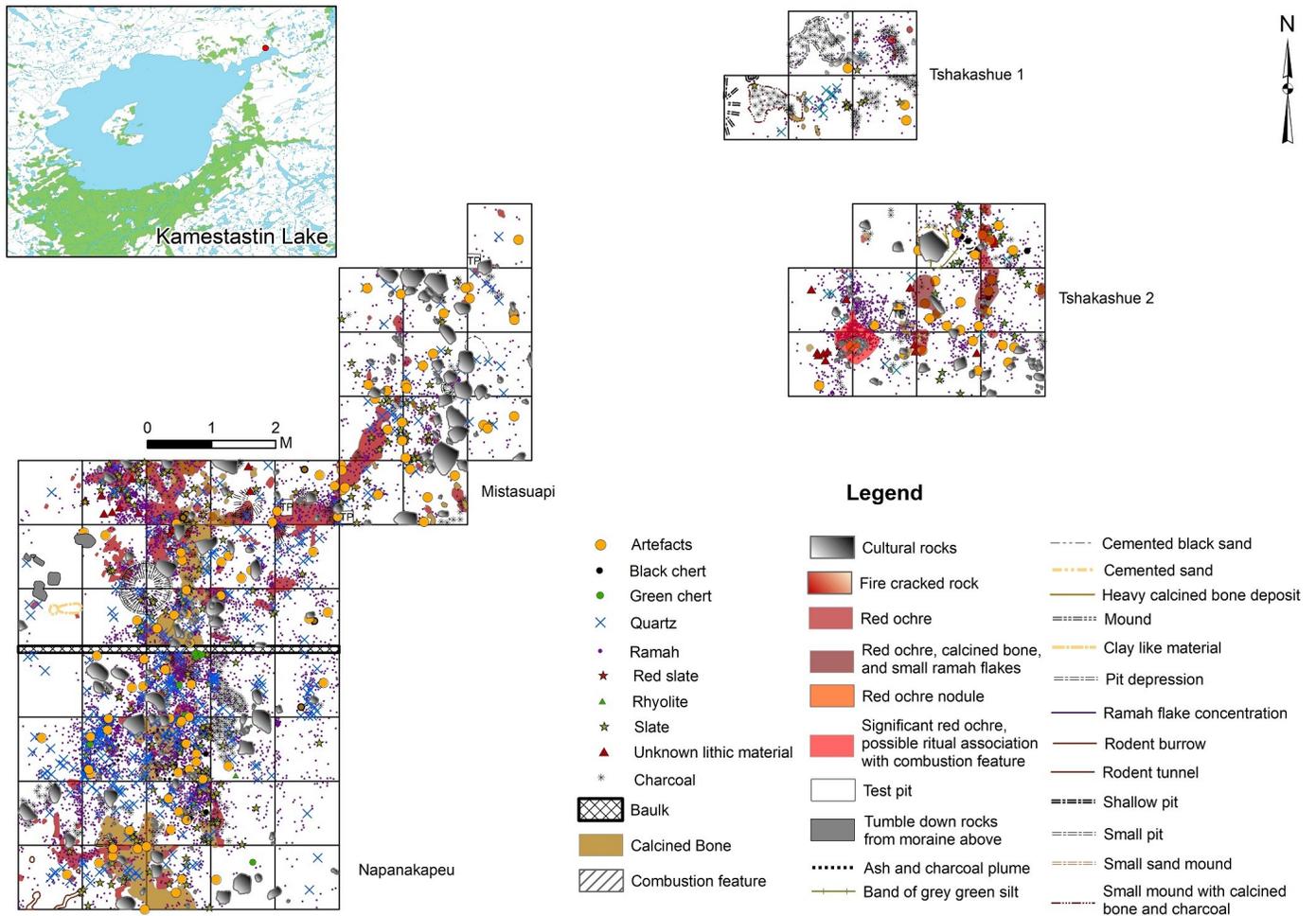


Figure 2: Overview map of GICs-08 excavations and spatial relationships at Mistanuk Mistamunik Site.

National Topographic System, 1: 50,000 Canvec 2007 hydrology, vegetation. Esri. ArcGIS Release 10.6.1. Redlands: CA.

ders. All of these, and the apparently anthropogenically placed structural rocks in particular, may describe an occupation structure. Lithic raw material numbers and occurrences of finished tools at Napanakapeu were heavily dominated by Ramah Chert, with much smaller quantities of black chert, white quartz, red quartzite and rhyolite (see Jenkinson 2020). In the spring of 2020, five additional one metre squares were excavated along the northern margin of Napanakapeu extending the 2019 excavation from an opened area of five by six metres to one of five by seven metres. The exercise revealed that Napanakapeu continues in this northerly direction and confirms that some of the occupation area has been subjected to heavy downwash of material from the moraine, deeply burying parts of the occupation surface. All five 2020 units contained cultural lithics though the flakes in the most westerly unit seem to

have originated higher up and been redeposited in down washed material (Figure 2).

In the case of this most westerly unit, in the 2020 series the down washed material accumulated over a gravel slope. The latter gravel apparently represents the moraine slope surface at the time of the circa 7000 BP human occupation at Napanakapeu.

The five one by one metre units excavated in the spring of 2020 at the north end of the Napanakapeu component also revealed a change in the direction of the moraine slope where it switched from southward to eastward facing and exposed further cultural material buried beneath this section. As with the rest of the Napanakapeu component, this part also trended north eastward.

In 2020 five separate samples (one of charred material and four of calcined bone) were collected from different spots in the excavated portion of the Napanakapeu component. These samples were subse-

quently processed by Beta Analytic. Three of the four calcined bone samples from Napanakapeu (BETA 553101, 553103 and 553104) returned dates closely mirroring two AMS dates on calcined bone obtained earlier from Mistanuk Area A (Tshakashue 1 and 2), all within the circa 7000 calibrated BP range. One of the Napanakapeu calcined bone samples (BETA 553100) was dated slightly later at 6670 – 6503 cal BP while the only charred material sample, collected in association with Ramah chert flakes from a more shallowly buried blackened lense well above the putative 7000 year old occupation floor, produced a date of circa 438 to 350 cal BP (BETA 553102) (Figure 3).

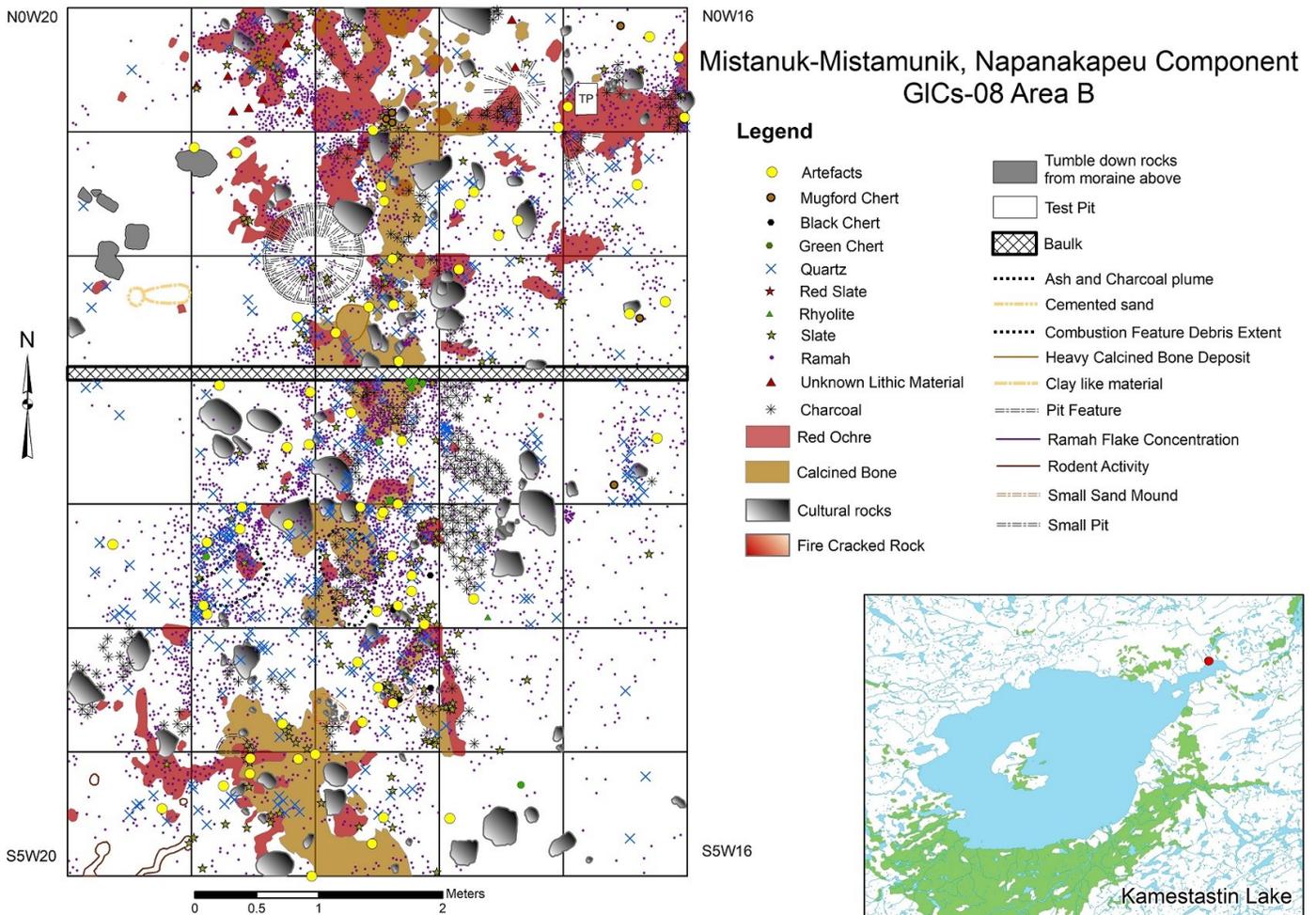
**Mistasuapi Component**

Mistasuapi (Area C) is a newly revealed component of the Mistanuk Mistamunik Site (GICs-08) and sits between the Area A slope and its features and the Napanakapeu component in Area B. Though close to Napanakapeu, it is discrete from it and separated by a

‘step down’ to another area of level ground upon which the Mistasuapi component lies. Mistasuapi may or may not be contemporaneous with Napanakapeu but if it is, the occupants of Mistasuapi seem to have been lodged separately. The Mistasuapi level is of a slightly lower elevation than the ground on which Napanakapeu sits. It attracted attention both because, during earlier test pitting, Ramah chert debitage was noted in most of the test pits dug in this relatively level area and because a number of anomalously large rocks protruded through the modern surface. Thirteen square metres were opened at Mistasuapi, revealing a linear arrangement of medium sized boulders and an occupation surface defined by charcoal and red ochre-stained sandy soil, fragments of calcined bone, stone tools and debitage. In the center of this linear arrangement of rocks was a fire pit evidenced by charcoal-stained and fire-hardened sands. At the

Figure 3: GICs-08 Area B, Napanakapeu Component, excavation diagram as of July 2020.

National Topographic System, 1: 50,000 Canvec 2007 hydrology, vegetation. Esri. ArcGIS Release 10.6.1. Redlands: CA.



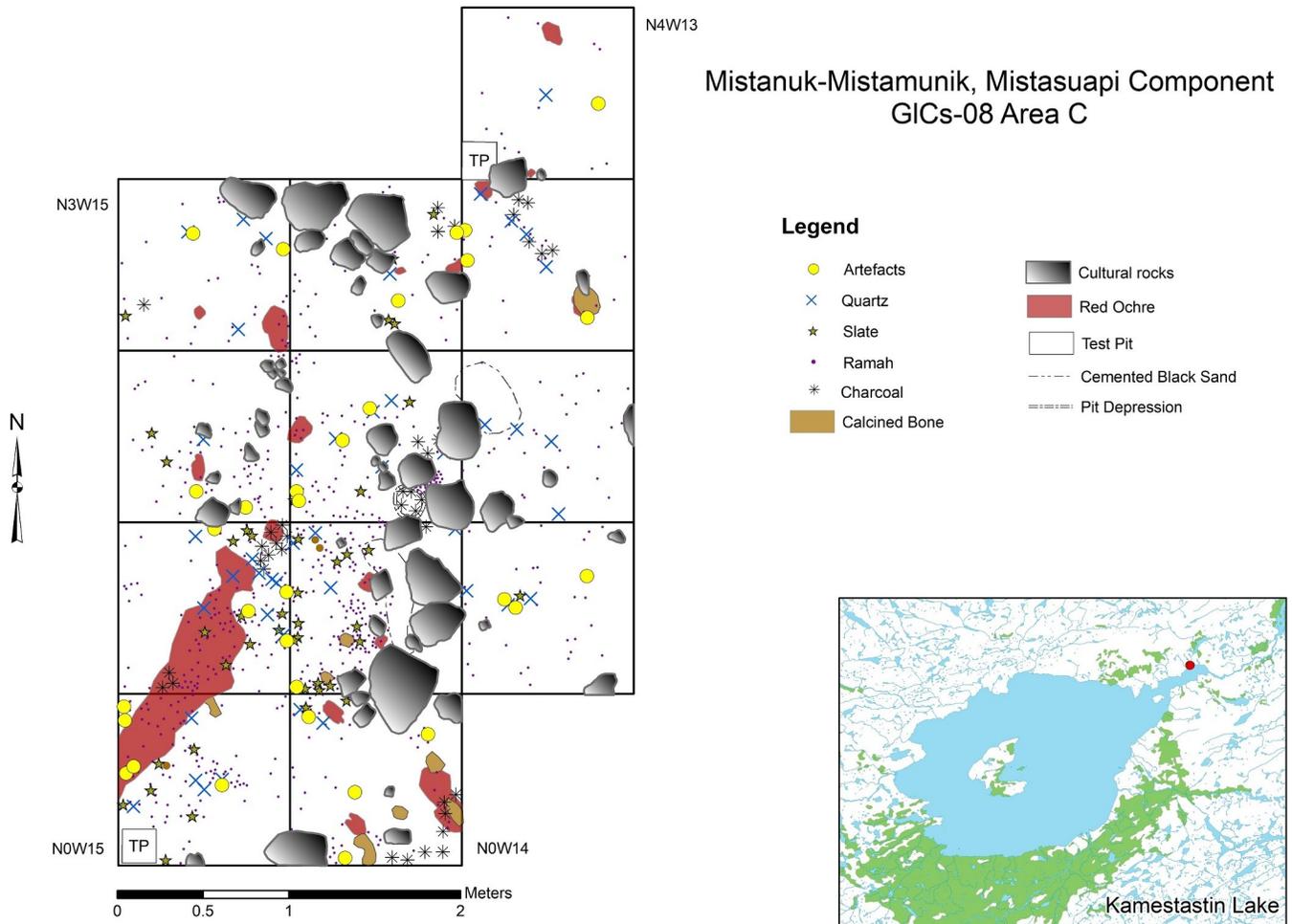


Figure 4: GICs-08 Area C, Mistasuapi Component, excavation diagram as of July 2020. National Topographic System, 1: 50,000 Canvec 2007 hydrology, vegetation. Esri. ArcGIS Release 10.6.1. Redlands: CA.

northern end of the linear feature was a “hook”-shaped rock alignment (Figure 4).

Cultural material was very heavily concentrated to the west of this linear feature and included nipple based and other short-stemmed points, the distal portions of a number of larger points or knives made of Ramah chert, quartz scrapers and scraper fragments, a small celt of poorly preserved and exfoliated slate, and a stubby gouge-like tool of black chert with a bit of a width of just over 1.5 cm (Figure 5).

A remarkable finely finished celt of white quartz lay close to the rocks of which the “hook” at the northern end of the hearth feature had been built. Even finer quality quartz is not an easy material to work into tools and the care and craftsmanship which went into manufacturing the celt demonstrates considerable skill and knowledge of the raw material. Measuring 16 cm long, 7.5cm in width and 3 cm in thickness, it weighed 436 grams. In addition to the

Figure 5: GICs-08 Area C, Mistasuapi Component projectile points.





**Figure 6: Mistasuapi Component quartz celt in situ.**

neatly beveled distal end both lateral edges of the celt have been carefully shaped: one side has a bifacial concave spokeshave-like indentation that suggests it may have functioned as a draw knife (perhaps an ancient counterpart of the Innu mukutan or crooked knife of more recent times), while the opposite side has a carefully worked bifacial cutting edge which runs almost the entire length of the celt. The quartz celt is remarkable not only for its physical characteristics, and the rarity if not uniqueness of the form amongst extant Tshiashinnu collections in the region, but also for the manner in which it seems to have been deposited when the site was vacated by its occupants. The celt was found resting flat on the occupation floor with the hypothesized handle or proximal end lying amongst calcined bone fragments. The bone fragments had received a scattering of red ochre after the tool had been laid down. That the ochre was

applied after the celt artefact had been placed there is suggested by the pattern of the red ochre staining which was concentrated over the proximal end of the celt's upward facing surface. The area of heaviest ochre staining coincided with a concentration of calcined bone fragments that underlay the celt. Red ochre staining was evident in adjacent units but was most concentrated next to the quartz celt (Figure 6).

While additional excavations may alter our perception, it is interesting to note that the debitage associated with the Mistasuapi assemblage – primarily Ramah chert – is quite different from other components so far excavated at Mistanuk Mistamunik where significant quantities of quartz have been encountered. When it comes to raw material use, the contrast between the Mistanuk components generally and coeval sites on the south side of the outflow narrows is even more striking: even south side sites which have



Figure 7: Mistasuapi Component quartz celt, indicating cutting and chopping edges.

produced almost identical dates to Mistanuk (GICs-08) possess prolific quartz debitage and very little Ramah chert. About 2.5 to 3 kilometres away to the north of GICs-08 is the Piuapisk quartz quarry (GICs-07) which is abundantly strewn with quartz debris of all sizes; it may be that the celt was produced, or at least roughed out, there. The possibility also exists that the celt was a well curated item which was brought to Kamestastin from elsewhere (Figure 7).

The manner in which it was carefully – we would argue ritually – cached, may attest to a plan to retrieve it later or put it to use on a subsequent visit to the Kamestastin caribou crossing. However, the apparent care lavished on the Mistasuapi quartz celt (its placement atop a small calcined bone deposit which may have been set alight and then the sprin-

gling of red ochre over both the celt and the surrounding bone) may be echoed in the treatment of quartz at some site features on the south side of Kamestastin narrows. At all of the Mistanuk components excavated to date Ramah chert is the lithic material which plays the most prominent part in ritual behaviour. Quartz is present at all of the Mistanuk components but in much reduced quantities from the southside narrows sites, even though some of the latter have near identical dates to those at GICs-08. The ubiquity and abundance of quartz debris at the southside sites sometimes makes it difficult to determine whether there is a ritual association, one which for Ramah chert looks clear at Mistanuk. That said, pit features at GICs-22 (Shak Selma), GICs-21 (Napeu Atik) and GICs-25 (Tshetshuk) may evidence ritual

treatment of quartz. At these three sites quartz had been collected and placed in pits. Of the two excavated examples, the quartz fill in the pit at Shak Selma was accompanied by small quantities of calcined bone, modest amounts of red ochre and wood charcoal attesting to fire having a role in the events surrounding the quartz deposition. At the Tshetshuk site heavy red ochre was present at the pit margins but not obviously in the pit itself (at the moment it is not clear whether the combustion features adjacent to these pits were hearths in domestic structures). Apart from quartz debris the fill also included broken tools of quartz and, in the case of the Shak Selma pit, very small quantities of grey chert and a glass-like purplish smoky quartz crystal. The presence of a quartz pit at Napeu Atik has been identified but not excavated beyond removal of the overburden. The quartz pit features at the three south side sites mentioned above raise questions as to the spiritual properties that the occupants of the sites may have attributed to the toolstone. At the present juncture one could tentatively propose that the apparently ritual disposal of quartz at Shak Selma, Napeu Atik, and Tshetshuk speaks to the site inhabitants investing quartz toolstone with powers or spiritual forces similar to those which the occupants of Mistanuk seem to have attributed to Ramah chert and, in the case of the Mistasuapi celt, to that quartz tool. In the context of this discussion of ritual behaviour involving quartz, one should also mention a feature which lay in immediate adjacency to a caribou bone mash filled hearth at Natakameimupan (GICs-04). At this site dated to 6853-6621 cal BP (BETA 403275) a semi-circular arrangement of quartz pieces flanked the west side of the hearth. While this ar-

range could be the work of children, the larger context of ritual behaviour involving quartz evidenced at Kamestastin sites of this age leads us to leave open the possibility that this feature at Natakameimupan represents another manifestation of quartz ritual.

The present evidence from both sides of the Kamestastin outflow narrows suggests that quartz was thought by those who around 7000 calendric years BP occupied the sites to possess more than

**Figure 8: Napes Ashini demonstrating possible use of multiple blade quartz celt as mukutan/crooked knife.**



simply physical properties, much as Ramah chert appears to have been. Exactly what the attributed supernatural properties were that prompted the apparently ritual treatment of these toolstones we do not and may never know. From a functional perspective, use wear and residue analysis of this tool may better illuminate the purposes to which it was put. One of its several uses may have been in reducing long bone epiphyses prior to the further crushing of the bone pieces produced by the process. The Mushuauinnu of today will often begin the process of bone grease extraction by using an axe to shave down or chip away the epiphyses of caribou long bones prior to boiling the

broken bone fragments to produce atikupimi for the ritual celebratory mukushan (Figure 8).

Nestled in amongst the rocks which were used to create the “hook” at the north end of the linear hearth lay a second particularly notable artefact, a large intact semilunar knife or ulu. Well thinned, weighing 143 grams and measuring almost 16cm in length and 7.5cm in width, it was manufactured not from pecked and ground slate, as is the case with the various examples found at sites of similar age on the Kamestastin Tshiashinnu sites on the south side of

the lake’s outflow narrows (Jenkinson and Arbour, 2014), but was flaked from a large piece of Ramah chert (Figure 9).

It should be stressed that the excavation of the Mistasuapi component at GICs-08 is not yet completed and enlargement of the presently excavated area, particularly to the east and south, may alter the picture presented in this preliminary description.

**GICs-08 Area A. (Tshakashue 1 and Tshakashue 2)**

In its modern aspect Area A of GICs-08 presents as a gentle West to East slope running all the way to the bank edge where the drop to Mistanuk brook begins. On the north side, Area A in its present configuration ends where the ground begins to drop to a low wet area which, separated by a narrow ridge from Mistanuk Brook, parallels the brook proper.

Mistanuk was first recognized as a site when a handful of Ramah chert flakes and a broken biface were noted lying on the surface of a small exposure in the lower levels of Area A (Figure 10).

In 2016 two test pits were dug in the southern part of Area A (Tshakashue 1). One of these produced debitage of Ramah chert and the distal end of a Ramah chert projectile point. The other fortuitously came down on fire cracked rock, calcined bone fragments, micro flakes of ochre-stained Ramah chert, and a small thin oval biface of Ramah chert (Jenkinson, 2017).

In 2017 four square metres were excavated around the Area A 2016 positive test pit which produced fire cracked rock. Excavation revealed a small combustion feature over and around which thousands of Ramah chert micro flakes had been deposited and then heavily dusted with red ochre (Jenkinson, 2018). The red ochre application had been heavy enough to stain the flakes pink. Later excavation of the mounded sand feature itself revealed more calcined bone and two large red ochre-stained Ramah chert biface

fragments which had been stuck into it. The excavation of this part of Area A (to which we later attached the name Tshakashue 1) revealed a number of medium-sized rounded boulders, sometimes in pairs, that surrounded the mounded sand feature “enclosing” it in an irregular broken circle. Almost certainly the “ring” of beach boulders is what remains of a tent structure. The lack of a more conspicuous formal tent-ring is apparently a consequence of taphonomic processes at the time the site was abandoned or in the period following its abandonment (Figure 11).

In 2019 during a fall season of archaeological work at Kamestastin, the original four one by one metre units around the “red ochre Ramah feature” were extended east by a further four square metres. Then in the spring of 2020 another three units were excavated along the northern edge of the extant Tshakashue 1 excavation. Small features of ground stained by carbonized materials with red ochre, deposits of Ramah chert micro flakes (many of which were stained pink from being covered with red ochre) and calcined bone, described the area opened, mirroring in a more modest way the larger and apparently ritual feature in the original two by two metre excavation. Artefacts from around these newly excavated

**Figure 9: Mistasuapi Component flaked Ramah chert semi lunar knife or ulu.**



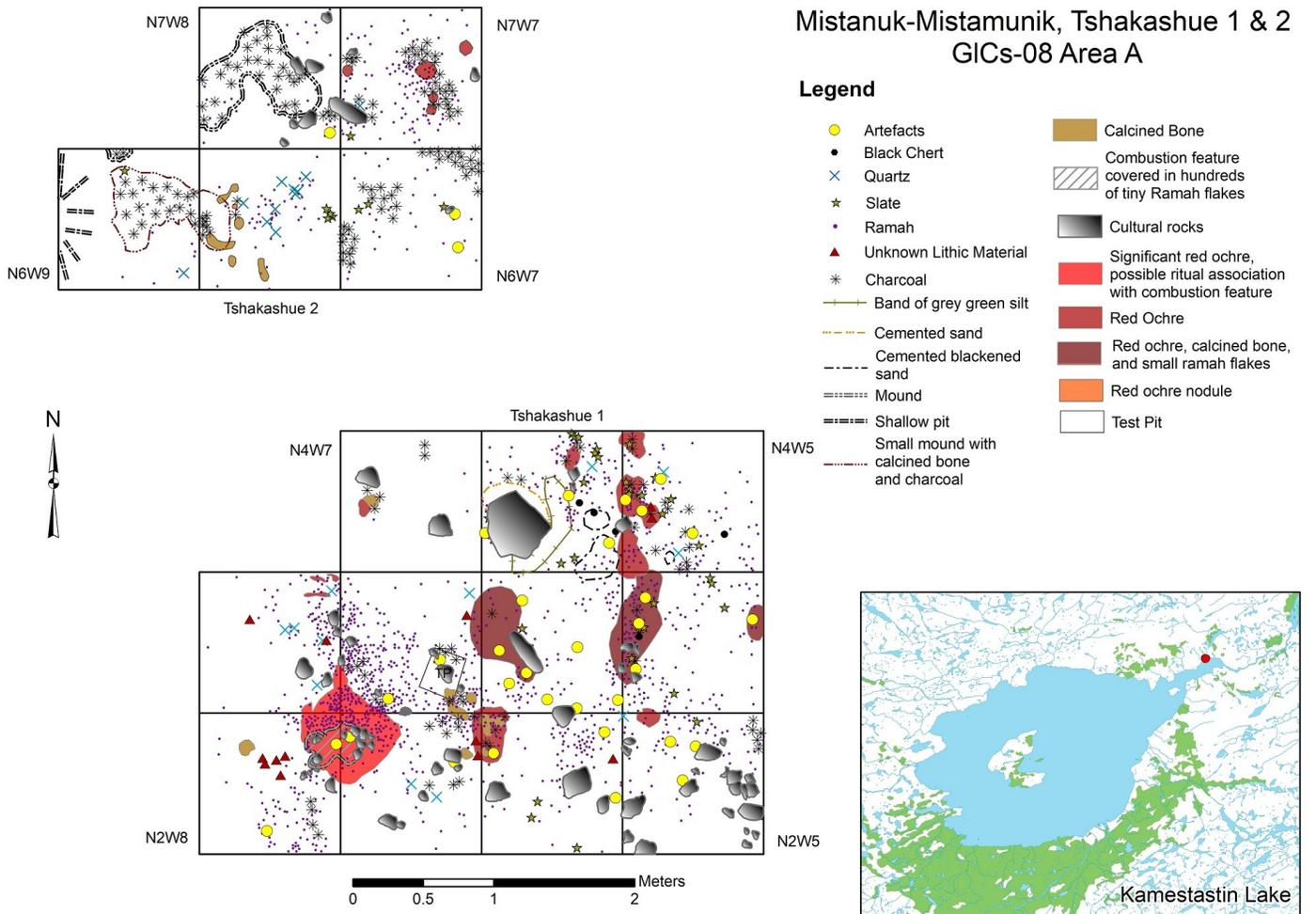


Figure 10: GICs-08 Area A, Tshakashue 1 and 2, excavation diagram as of July 2020. National Topographic System, 1: 50,000 Canvec 2007 hydrology, vegetation. Esri. ArcGIS Release 10.6.1. Redlands: CA.

Figure 11: Top row: biface distal fragments. Bottom row: biface stem. All from Mistasuapi component in Area C.



features included fifteen biface fragments, two utilized flakes, two intact bi-pointed bifaces (which are likely lance tips), one celt fragment, and two abraders for either ground stone or bone work (Figure 12).

While additional excavations are anticipated around the margins of the Tshakashue 1 occupation (in Area A at Mistanuk Mistamunik) we feel comfortable in advancing an interpretation of the occupation floor with its concentrations of ochre-stained Ramah chert micro-debitage, calcined bone, and central raised mound feature as the remains of a former structure that may have been ritually abandoned or at least within which ritual activity took place. As such it bears some striking similarities to a coeval structure that Christopher Wolff excavated at the early Maritime Archaic White Point site, near Saglek on the north coast of Labrador adjacent to the Ramah chert quarries (Wolff 2007, 2008). Both sites had red ochre deposits surrounding a central feature in which Ramah chert bifaces had been intentionally abandoned. Stephen Loring’s (2017) paper includes an illuminating discussion on the posited spiritual properties of Ramah chert and the evidence for believing that the toolstone was esteemed for qualities not limited to physical attributes related to knapping.

**Mistanuk GICs-08 Faunal Analysis**

Calcined bone from the Napanakapeu and Mistasuapi components at GICs-08 has been sent to Art Spiess (Maine Historic Preservation Commission) for analysis. Preliminary reports indicate that the bulk of the fragments are “unidentified large mammal”, though those large mammal fragments which can be identified to species are all caribou. Apart from caribou, ptarmigan or spruce grouse bones have also been identified. Several fragments of caribou bone show

cut marks or other evidence of human modification. Bone fragments from almost all parts of a caribou’s skeletal structure, as well as some antler and teeth, are present. This does not necessarily argue against the faunal assemblage representing primarily calcined bone remains from bone grease extraction activities. Caribou bone grease continues to be extracted by today’s Innu from both the epiphyses of long bones and caribou vertebrae. The shafts or diaphyses of the long bones are broken in the course of marrow removal but are not crushed as are the epiphyses. The removed marrow is cut into small chunks and folded into the setting bone grease, bulking it out. Once completely set, the marrow chunks and the rendered oil form a cheese-like solid. Both the epiphysial mash, the long bone shaft fragments and, in the practise of some, the crushed vertebrae are placed in water and boiled. The rendered bone oil rises to the top of the water and is skimmed off, while the broth resulting from the boiling event (the Muskami) is consumed as a nutritious and spiritually powerful drink. The preceding is given as a general guide for interpretation of the osseous remains from

such practises. The particulars during different eras of Innu ancestral history may have varied.

The caribou, or rather its guardian spirit, today and in the remembered and documented past, sits high in the pantheon of Innu deities. Rules govern the treatment of the animals and the products they provide to the Innu. One can say that caribou is considered a particularly spiritually charged animal and disrespectful handling and disposal of its products risks incurring the displeasure of the caribou deity with future misfortune and hunting failure being the jeopardy. Disposal in fire returns the bone, fat, or

**Figure 12: Slate from (left to right) Mistasuapi component (scored slate piece) and Tshakashue 1 component (slate piece edge notched on opposite lateral edges).**



other object derived from caribou to the guardian entity. It is therefore a spiritually safe method of disposal. It is unknown exactly what rules governed the interaction between Innu ancestors and caribou during the period when the Mistanuk suite of features were occupied c 7000 years ago but there are hints in the archaeological remains at GICs-08, and at other sites around the caribou crossing narrows, of behavioural elements that may reverberate in recent history and even to the present.

Elsewhere in this report reference has been made to the association at the various components of GICs-08 of deposits of numerous small flakes of Ramah chert, calcined bone fragments, greasy black carbonized material, and red ochre. This phenomenon occurs at all of the Mistanuk Site components and varies from several small discrete occurrences to the largest example where hundreds of small to micro flakes of Ramah chert were deposited on and around a small sand mound with calcined bone, charcoal and blackened sand, and then sprinkled with red ochre. The pattern is replicated at each of the components so far excavated. There are also occasional deposits of white pasty material which may be degraded burnt epiphysial bone (Figure 13).

At the moment the phenomenon looks very much like a ritual associated with both caribou and Ramah chert, the raw material from which most of the weapons and tools found at the site were crafted. As little wood charcoal accompanies these deposits, the question arises as to whether part of the ritual involved setting the crushed bone alight after it had been boiled. Even were this to be the case, a concurrent utilitarian aspect would not be inconsistent. If ethnographic analogy can be used to shed light on what may have happened seven millennia ago, many Innu practises have both a ritual propitiatory dimension and a simultaneous utilitarian one. Innu accounts attest to people revis-

iting bone mash depositories in times of food shortage and re-boiling the bone fragments to extract residual bone oil, stories which demonstrate that bone mash, even after it had been subjected to extractive processes, retained enough oil to warrant re-boiling for the fat which was so critical to Innu health and wellbeing. With regard to burning of caribou bone fragments and their flammability, Douglas Anderson reports information apparently obtained from Inupiak informants living on the Kobuk River in Alaska (Anderson, 1988). In his *Onion Portage* volume Anderson describes what he was told both by local people in this regard and what he observed in crushed bone deposits at the Onion Portage site:

“Charcoal from logs or other large pieces of wood that could have been used to fuel the hearths was conspicuous by its absence. Very few of the bone bits appeared to have been burned while fresh, but rather were apparently burned after they had been boiled. The boiling of crushed bones calls to mind the ethnographically known practice of making “punyik” [in Innu “atikupmi” – author’s note] (grease rendered from animal bones). According to informants, the bone residue from this type of fat rendering, when dry, is

**Figure 13: Linear hearth with small central fire pit at Mistasuapi component (Area C).**



also suitable for use as fuel” (Anderson, 1988:73).

More formal hearths at Mistanuk clearly did have wood charcoal within or lying against them so the calcined bone at the Onion Portage Denbigh levels reported by Anderson are not perfectly mirrored at Mistanuk. That said, the Mistanuk site has numerous examples of calcined bone lying in sand stained with black carbonized material but without wood charcoal (at Mistanuk almost always accompanied by micro-flakes of Ramah chert and dusted with red ochre) and so the question arises as to whether a version of what Anderson reports as occurring both in Denbigh archaeological and Inupiak ethnographic contexts was also occurring in a Tshiashinnu one on the other side of the continent. At the moment there is no reason to believe that burning of the crushed bone remains must be exclusively for either utilitarian or religious reasons and the ubiquitous presence of red ochre at the sites of burning events, or in very close association with them, suggests that there was a ritual dimension to this practise in which what were likely spiritually charged elements (Red ochre, caribou bone and Ramah chert (and in other contexts, quartz) all played roles.

Elsewhere in the same Onion Portage Kobuk River report, Anderson expands on the use of the crushed bone as fuel following processing for grease extraction:

“Many of the Denbigh features are characterized by the presence of tiny bone fragments that apparently have been calcified through burning or boiling, calling to mind the manufacture of bone grease or “punyik”. As in other levels of the site, the crushed bone is usually concentrated in or near hearths. Where present in the hearths, this bone may well have gone through two phases of processing, first boiling to render the fat from the bone and second (after drying)... burning. Bone burns with a hot flame, even after much of the fat has been rendered out of it” (Anderson, 1988:92, emphasis added).

#### **Nomination of Kamestastin as a National Historic Site made to National Historic Sites and Monuments Board of Canada (NHSMBC)**

Work on generating candidates for National Historic Site recognition in the Innu territories has been going

on for many years. Prior to developments on nominations for the Amatshuatan to Meshikamau trail and Kamestastin, there were three designated National Historic Sites in the Innu territories, namely the Tadoussac Innu Mission, the site of the Chicoutimi 1676 Post, and the Blanc Sablon archaeological (mainly Innu ancestral) sites. A nomination by Mamu Pakatatau Mamit was also made to NHSMBC for the site of the Musquaro Mission, trading post, and Innu gathering place where the ancestors of many Maskuanuinnu families in Sheshatshit were baptized. It has not yet been finalized.

In 2020 the Amatshuatan to Meshikamau Trail officially received National Historic designation from NHSMBC and in June 2021 the NHSMBC will convene to review the likely designation of Kamestastin as a National Historic Site. The nomination was made for Kamestastin as a place of exceptional importance in the long history of the Innu and their ancestors. The archaeological work done over the past twenty years has played a central part in putting Kamestastin on the long path to gaining this recognition.

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Archaeology at Sheshatshit

Without exception the country on both sides of the outlet of Grand Lake (Kakatshu-utshistun) and along the adjacent western shore of Lake Melville (Atatshiuinapek), where the present day communities of North West River and Sheshatshiu are situated, contains amongst the most intense and continuous sequence of known ancestral Innu occupations to be found. Almost anywhere where the ground is disturbed traces of previous land-use and occupancy can be found stretching back from the present day to over 6000 years ago. While visitors and residents had previously chanced upon ancient stone tools in the course of land-clearing and construction activities, it was not until the focused survey and excavation research initiated by William Fitzhugh, primarily in North West River in 1968-1969, that the archaeological significance of the region was revealed (Fitzhugh, 1972). Since then the pace of housing construction and village infrastructure development in Sheshatshit has switched the focus of archaeological attention to the south side of the outlet where Kakatshutshistun/Grand Lake and its tributary rivers discharge into

“Lake Melville” or Atatshiuinapek (e.g. Neilsen 2010, 2011, 2013) (Figure 14).

The archaeological discoveries since then have dramatically reaffirmed the ancient tenure of the Innu both to this place and the region in which it is set. Until recently the carpet of boreal forest vegetation that backs the modern community kept hidden, and safely guarded, the ancient camp sites that lay scattered over the raised beach terraces facing out on Lake Melville. While no systematic monitoring program exists that anticipates and protects the archaeological resources in Sheshatshiu, An-

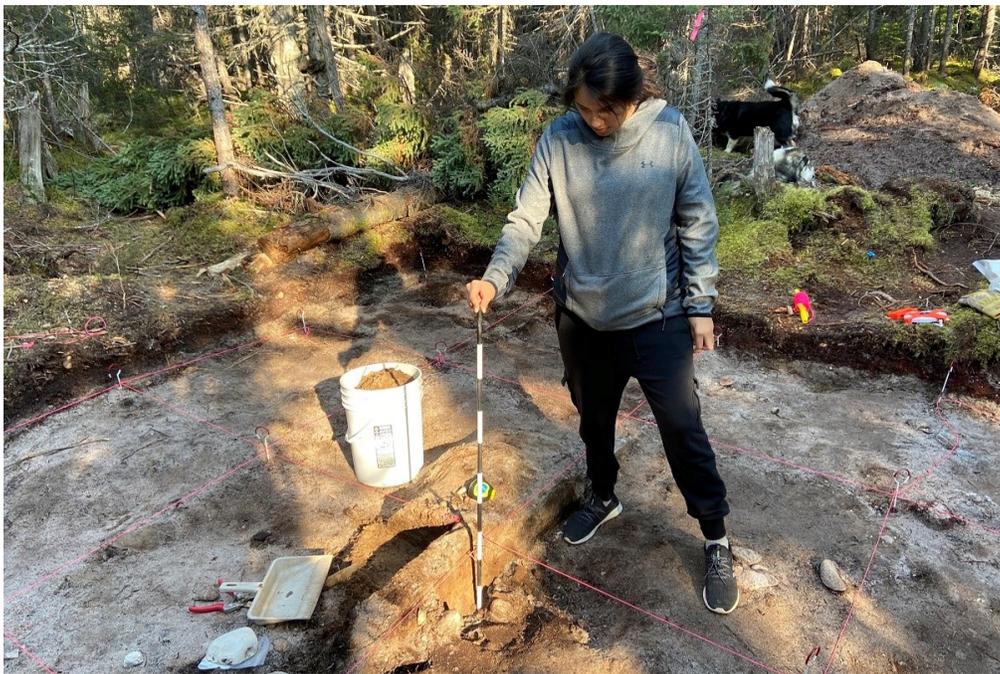


Figure 14: Jordanna Benuen holding metre stick for photograph of Shukapesh 2’s central fire pit feature and sand mound. October 2020, Sheshatshit.

thony Jenkinson and Scott Neilsen, aided by Sheshatshit residents, have tried to keep abreast of discoveries and conduct emergency salvage excavations when possible. Every one of these small sites that are dispersed about the terraces contributes to an understanding and appreciation of Innu lives lived in times past. One such site is Shukapesh 2 which was partially explored in 2020.

The Shukapesh 2 Site (FjCa-79)

Shukapesh 2 was discovered in 2016 during the course of a test pitting program conducted on the highest marine terrace on the Sheshatshit side of the Grand Lake outlet narrows (Figure 15).

The same test pitting exercise also led to the discovery of Shukapesh 1, 30 metres away from Shukapesh 2. Unlike the latter occupation, which lay 14 metres back from the terrace edge, it sat only a metre from the point where the steep bank down to the next terrace began. Shukapesh 1 was partly excavated in the fall of 2016 and produced a modest assemblage of quartz shatter, slate fragments, a ground slate celt and a circular quartz piece that was bifacially reduced. It is possible it represents an abandoned preform, but the plentiful micro-debitage quartz flakes surrounding the hearth feature suggest it may have served as a strike-a-light. Two wood charcoal samples were collected from the hearth feature that returned

dates of 5055-4866 cal BP (BETA 522803) and 3386-3237 cal BP (BETA 522804). One of the 17 positive test pits (TP 35 Row 3) came down on an aggregation of stones between which were charcoal fragments and quartzite flakes. Another nearby test pit (TP 22 Row 2) produced an oblong biface of white quartzite made on a large cortical flake and several other quartzite flakes and pieces of shatter. Other examples of this rather roughly made tool type were subsequently identified in the course of the fall 2020 Shukapesh 2 excavation (Figure 16).

The test pit was slightly enlarged at the time to confirm that the combustion feature was indeed a cultural one. In the fall of 2020 we returned to the Sheshatshit top terrace (about 33 to 35 metres a.s.l.) to conduct a small formal excavation. Before snow and freezing ground compelled us to wrap it up, 25 square metres were excavated between TP 22 Row 2 and TP 35 Row 3, two of the 17 positive test pits from the 2016 test pitting exercise. Excavation of these 25 one by one metre units revealed a 5.7 metre north west to south east aligned linear hearth with a centrally positioned fire pit. Charcoal deposits lay beside and amongst the rocks which described this hearth feature but the most intense combustion, evidenced by blackened and heat cemented sand, was centred on the fire pit and its flanks. The latter con-

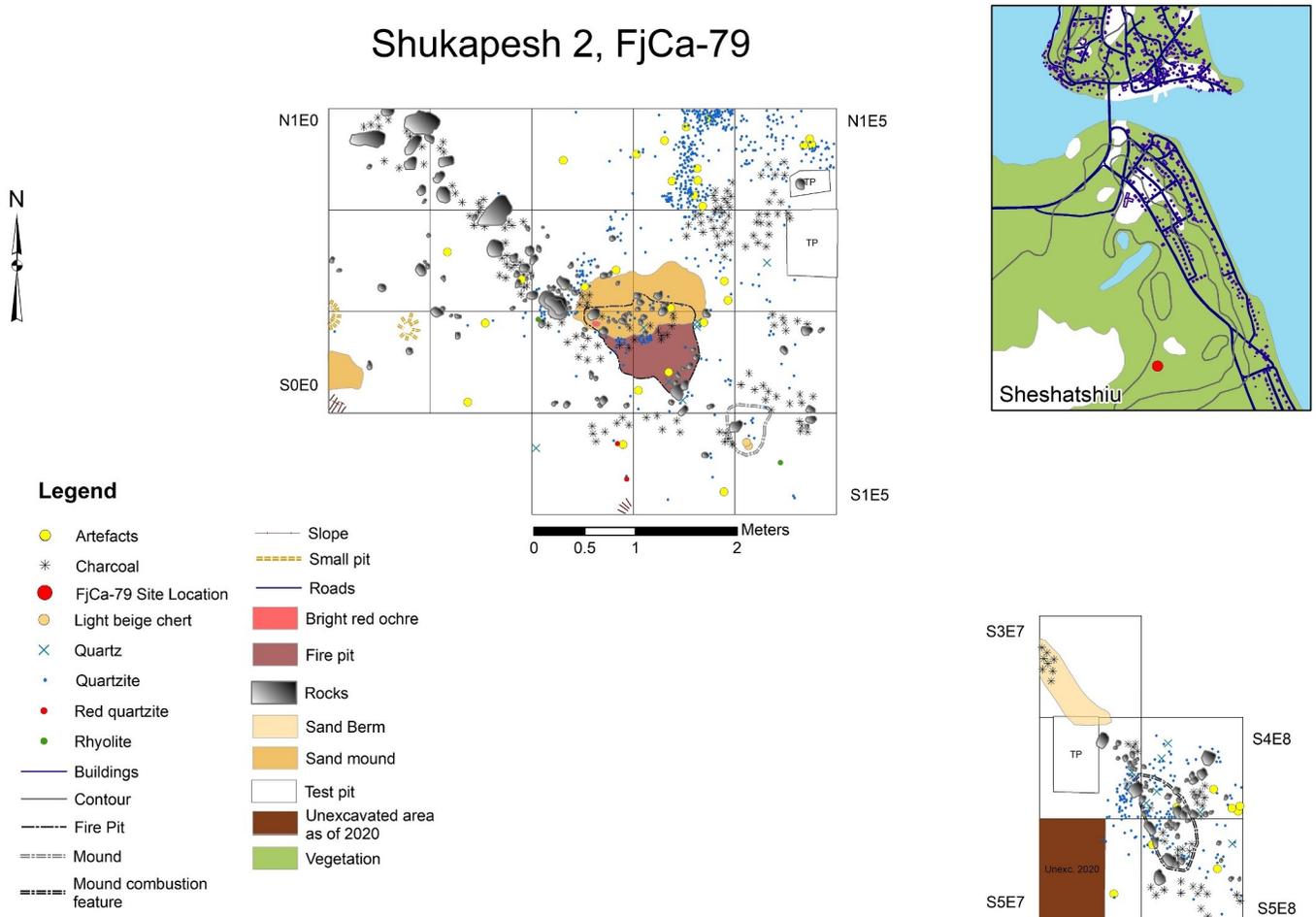


Figure 15: Excavation diagram of FjCa-79, the Shukapesh Site, showing the state of excavations at the end of the fall season in 2020. National Topographic System, 1: 50,000 Canvec 2007 013F09 building, 013F09 hydrology, 013F09 road, 013F09 vegetation. Esri. ArcGIS Release 10.6.1. Redlands: CA.

Figure 16: Ovate quartzite bifaces and one bi-point from the Shukapesh 2 site in Sheshatshiu. All retain some cortex on one facet.





Figure 17: Close up of proximal portion of one of the two notched points from Shukapesh 2, FjCa-79. This piece was later refitted with medial and distal sections making the artefact almost complete (see Figure 1 in this report for the refitted artefact with scale).

tained calcined bone fragments, embedded charcoal, and quartzite flakes. Beside the fire pit, and partially sitting upon its northern section, was a mound of sand which appears to be spoil from the digging of the pit. The mound, measuring 1.3 metres by 75 cm, lay mainly upon a layer of decayed white organics, though slumping onto the northern pit flank seems to explain fire cracked rock, quartzite debitage, blackened heat cemented sand and charcoal buried under its southward facing side. In section the mound revealed no natural stratigraphy in the mottled, undifferentiated material of which it consisted, supporting the hypothesis that it was created in the course of work by the site occupants when they were digging out the fire pit.

The assemblage at Shukapesh includes five complete but crudely fashioned ovate knives of quartzite and fragments of three other examples of the same tool. All of these ovate bifaces retained some cortex on one side of the tool and it seems all were made to a similar pattern after the raw material was obtained from large cortical flakes struck off quartzite cobbles. They are analogous to a similar bi-

face that was recovered across the river at FjCa-29, the Graveyard site (Fitzhugh, 1972:80, see Fig.43a)

One finished quartzite asymmetrical bi-point was present. It had a profile which mimicked a small semilunar knife or ulu and, like the ovate knives recovered at Shukapesh 2, it retained some cortex on one facet.

Two, much more finely flaked, bifaces of quartzite, which may also be small knives, can be added to this category (Figure 17).

A pair of projectile points with expanding stems and low side notches were found close together about a metre away from the hearth's north side. Two other "points" were clearly unfinished and probably abandoned because of manufacturing/raw material problems. The flaking on the distal portion and one lateral edge of the larger of the two was well advanced while the pointed "business" end of the slightly smaller one was more rudimentary. Both objects retained blocky proximal ends, though their unfinished shape suggests that the tool maker was trying to produce stems on these points, if that is what they were. However it remains possible that the craftsman was aiming to fashion small knives, though, barring two small tear-drop shaped knives, all other examples of cutting tools at Shukapesh 2 tended towards ovate shapes.

In the category of scrapers, three or possibly four quartzite items may have been intended to serve this role, or possibly that of wedges for splitting bone or wood. They would be impractical for use on more delicate surfaces such as animal skins. Some crushing on the blunt end of one lends support to the notion that their purpose was to serve as aids in splitting wood or bone. As they are barely more than bifacial preforms it is difficult to determine their function with certainty (Figure 18).

The assemblage at Shukapesh 2 was dominated by various fine or coarser grained grey quartzites which appear to be sourced from local beach cobbles. This is the preferred lithic raw material at several sites in North West River, including the Sid Blake and Cookery sites (Fitzhugh, 1972). In very modest quantities white quartz was present as small battered cobbles and flakes. Trace amounts of red quartzite and a grey banded rhyolite round out the raw material inventory. A cluster of positive test pits south west of

Shukapesh 2 on the same high terrace produced abundant debitage of what appears macroscopically to be the same banded rhyolite which was present in limited amounts at Shukapesh 2. On the two sites on this high terrace in Sheshatshit which have so far been subject to excavation, Shukapesh 1 (2016) and Shukapesh 2 (2020), Ramah chert was entirely absent. There was no Ramah chert amongst the materials recovered from the 17 positive test pits dug in 2016 (Figure 19).

As mentioned above, the central fireplace placed in the linear hearth at Shukapesh 2 produced a modest but interesting faunal assemblage. Several bone pieces were intact or less fragmentary than one has become accustomed to at Tshiashinnu early Archaic sites at Kamestastin. Calcined bone deposits from these early caribou ambush sites, as well as more recent ancestral Innu ones, tend toward being much more fragmented, testifying to bone grease (atikupmi) rendering activities during which the epiphyses are crushed and the long bones split or shattered.

Faunal analysis of most of the calcined bone from Shukapesh 2 is currently underway. A separate sample of small pieces of the most fragmentary and friable Shukapesh 2 calcined bone is in the process of being AMS dated (Figure 20).

As for the placement of the Shukapesh-2 assemblage within the archaeological sequence as understood from North West River, it remains somewhat speculative pending radiocarbon dating. Even though the Shukapesh-2 hearth and associated assemblage is situated near to the Shukapesh-1 site and on the same raised marine terrace the two components may not be contemporary. The Shukapesh-2 assemblage shares a number of affinities with sites in Fitzhugh's North West River Phase (including a prepon-

derance of rough ovate bifaces manufactured from local quartzite beach cobbles) which raises the possibility that the site is much younger than the Shukapesh-1 component. Fitzhugh dates the North West River Phase to ca. AD 200. What is apparent is the potential of almost every new site discovery to provide new and sometimes unexpected revelations about the intricacies of the lifestyles and adaptations of ancestral Innu groups who then, as now, visited seasonally or whose descendants later made their homes by Atatshi-uinapekut.

Acknowledgements

Thanks are due to the Kakuspianut Program of Sheshatshit Band Council and its coordinators Bart Pukue and Peter Nuna, as well as Greg Pastitshish, band manager of Sheshatshit, for facilitating travel of families and gear to Kamestastin. We also thank Greg Pastitshish for support during the fall 2020 excavation work at the Shukapesh 2 site in Sheshatshit. As usual we are indebted to Napes Ashini, Richard Nuna and Ben Apatet Andrew for their knowledge of, and insights on, Innu life and history. Jodie Ashini at Innu Nation has worked tirelessly to promote and celebrate the epic Innu ancestral story and strongly sup-

Figure 18: Quartzite pièces esquillées, or wedges, from Shukapesh 2 site in Sheshatshit, FjCa-79.





Figure 19: Shukapesh 2 excavation, view to North West. Main excavation area is in the background with the smaller excavation and its combustion feature in the foreground. Hearths/combustion features in both sections are on the same alignment raising the question whether they are linked in the unexcavated portion between the two opened areas.

ported Innu historical research work in the field. The Kamestastin work would have been more difficult without her energy, commitment and enthusiasm for Innu heritage.

We acknowledge with gratitude financial support for work at Kamestastin in the fall of 2019, in-

cluding covering the costs of radiocarbon dating of charcoal and calcined bone samples from the Mistanuk Site (GICs-08), from the Ernest Burch Fund, Arctic Studies Center, Smithsonian Institution.

Particular gratitude is expressed to Dr Scott Neilsen for his wise counsel and general helpfulness towards Tshikapisk work, helpfulness which has been manifested in a myriad of different ways, too numerous to list here.

As usual the Provincial Archaeology Office has “been there” for the work we have undertaken in Sheshatshit and at Kamestastin and we acknowledge their support with gratitude.

We need also to thank the Royal Canadian Mounted Police in general, and Staff Sergeant Pat Dornan in particular, for being so supportive of Tshikapisk Innu Historical Research initiatives at Kamestastin. The cooperative attitude and helpful approach to the work there went well beyond a thank you for the use of the Tshikapisk camp during the police response to the fatal crash of a Beaver aircraft at Kamestastin in July 2019.

And of course Anthony Jenkinson acknowledges the tireless support received from his dog Tutut whose antiquarian proclivities and loyalty to his human have led him to share experiences of being drenched in rain, pelted with ice pellets, whipped in the face by snow squalls and chill winds, devoured by mosquitoes and black

flies and on more than one occasion to risk his life in the process of showing much larger animals (wolves and bears) to the figurative door (Figure 21).



Figure 20: Bone from the fire pit feature at Shukapesh 2. The phalangeal bone in the left foreground is provisionally identified as from a black bear.

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Figure 21: Tutut negotiates passage between the Napanakapeu and Mistasuapi Components at GICs-08, Kamestastin, taking scrupulous care not to set foot or paw in the excavations. Area A, Tshakashue 1 is the background. June 2020, Kamestastin.

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Public and digital archaeology on Quebec's Lower North Shore: outlines, Summer 2020 activities, and prospects

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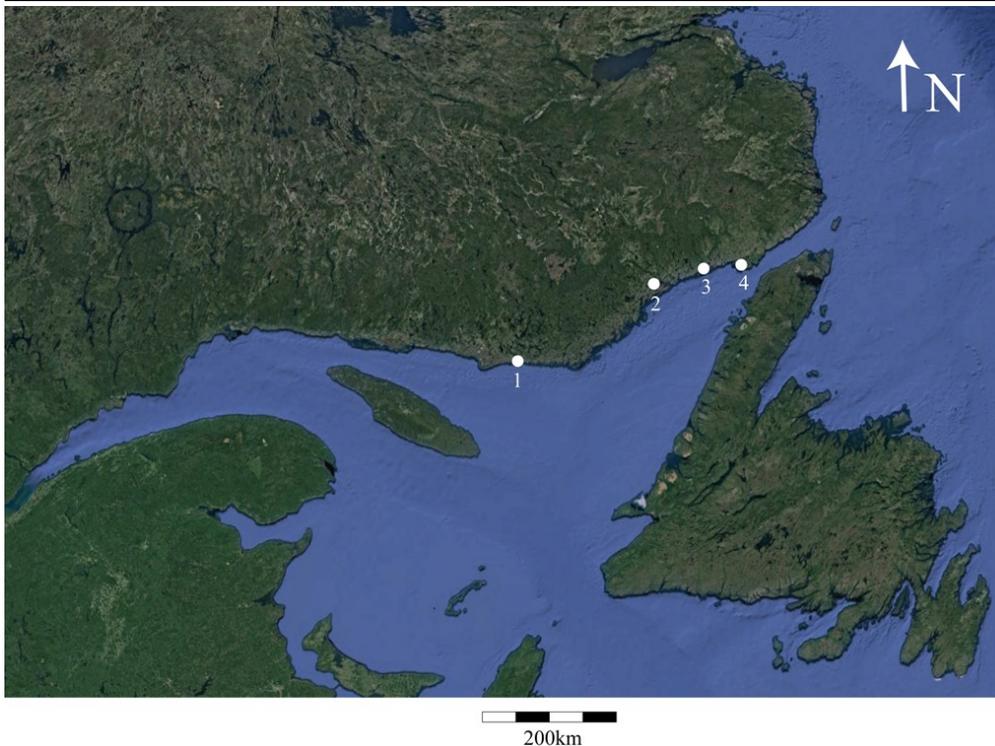


Figure 1: Location of the communities mentioned in the text (1: Kegaska; 2: Pakuashipi and Saint-Augustin; 3: Old Fort and Rivière-Saint-Paul; 4: Blanc-Sablon). (Map: Manek Kolhatkar)

Introduction

This paper outlines a public and digital archaeology project that was launched at the end of summer 2019 at Blanc-Sablon, on Quebec's Lower North Shore. It brings together Archéo-Mamu Côte-Nord, the Littoral Schoolboard, the Université de Montréal's newly formed AnthroPLab (a digital laboratory), the municipalities of Blanc-Sablon and Bonne-Espérance, and financial support from the MRC du Golfe-du-Saint-Laurent. The aim of the project is to: (i) teach archaeological practices and skills to the residents of the region's various communities; (ii) develop tools for managing the region's heritage both locally and durably; (iii) work out a model for

territorial development that works in partnership with archaeology.

The Lower North Shore extends between Kegaska and Blanc-Sablon (Figure 1). Archaeology-wise, it may be one of Quebec's, if not Canada's, richest regions, with close to 8000 years of continuous occupation by various cultural groups (Maritime Archaic, Post-Archaic, Predorset, Dorset, Basque, French and English populations), and hundreds of recorded archaeological sites (Pintal 1998, 2010). However, when considering the wealth of information available for investigating past human practices and landscapes, it remains poorly known, despite intensive in-

vestigation in the 80s and 90s and the presence of various local archaeological and historical centres for furthering research and heritage preservation. Little resources are currently available for taking proper care of the region's heritage: stone flakes and tools are routinely uncovered by anthropic (especially the use of all-terrain vehicle (ATV)) and natural (eolian) erosion processes, and old fishery buildings slowly crumble as the winters pass by.

The region's isolation may be a key factor in understanding the current state of its archaeological research and heritage preservation. Although it is officially part of Quebec, it is not connected to the rest of the province by any direct road: route 138 follows

the Saint-Lawrence River along the North Shore and southern Quebec, it stops at Kegaska, and it picks up again 400 km further at Old Fort, and continues for the remainder of the Quebec shoreline. One must travel either through the Trans-Labrador Highway, or through New Brunswick, Nova Scotia and Newfoundland, three days and a 2200 km long road when driving from Montreal. Coastal and unpredictable weather complicates plane travel, a slightly less expensive option than the boat service offered by Relais Nordik. Besides being difficult to access, the region's housing situation is little developed. Archaeology thus quickly becomes an expensive practice that the recent COVID-19 pandemic has further complicated. When travelling there, one does not feel they are still in Quebec. They are, simply put, on the Lower North Shore, a region that connects seamlessly Quebec and Labrador's official borders along its shoreline road, its communities and their few thousand-strong population.

However, such isolation also lends to a community-based digital form of archaeology as the favoured solution to research and heritage preservation related concerns: (i) archaeology must be looked at through the scale of the region; (ii) digital technologies can and must be used to reach out to the various and isolated communities; (iii) the population is so spread out that no centre hub clearly emerges that would justify locating one's outreach at one location rather than another; (iv) people's sense of belonging is rooted in the Lower North Shore as a whole distinct from the rest of Quebec and Newfoundland and Labrador, and to which smaller, community scales of belonging are connected to. Grounding the practice in various local communities thus becomes as much an economic and demographic imperative as it is an ethical and scientific one.

The project has grown and shifted from a prior archeotourism proposal by Archéo-Mamu Côte-Nord (2015) initiated at Blanc-Sablon in 2015. Entitled "Aventure archéologique à Blanc-Sablon/ Archaeological adventure Blanc-Sablon", it took place at the Rive-Ouest-de-la-Blanc-Sablon (ROBS) classified site. In fact, ROBS is hardly a site, it is a big chunk of land where 74 sites have been recorded (as of August 2019). It is one of the richest and most thoroughly researched areas of the region (Pintal 1998). The project was designed around tourists who,

in exchange for a fee, would be taught a few basic archaeological skills while excavating its sandy dunes and terraces in the search for colonial period artifactual and other occupational remains. The project's design allowed for further archaeological research at ROBS, research that is seldom conducted in Quebec outside of university-led field schools, as most archaeological work in the province is environmental impact work conducted by private firms in bigger development projects (Desrosiers 2016, 2017, Kolhatkar et al. 2020, Zorzin 2011). In the summer of 2019, fieldwork led by the first author and assisted by the fourth author focused on a broader inspection of the classified site, and allowed for six new sites to be added to the previously known 68 sites. These six sites were discovered mainly by visual inspection, attesting to the high impact of erosion on ROBS's sandy dunes and terraces (Archéo-Mamu Côte-Nord 2020).

However, August 2019 also allowed for some feedback from the municipality of Blanc-Sablon during a first meeting that took place at the end of the mandate with the Mayor of Blanc-Sablon, concerning the benefits that the community drew from the project. To put it simply, those benefits were little to non-existent, people came in from abroad, were taught a few archaeological skills, and then flew back home, never to be heard of again. It seemed, then, that it was archaeologists who benefited the most from the project. The benefits that the municipality desired have become the project's aim, and are: (i) to develop archaeological skills in local communities; (ii) to prepare for the local management of the region's rich heritage; (iii) to use the heritage as a resource for territorial development (such as tourism); (iv) to create jobs; (v) and to retain the Lower North Shore younger population so it can participate in its development. We agreed that the project's underpinnings should be changed; it then became a matter of figuring out how we could complete such hefty aims. A second meeting, with the municipality, but enlarged to include a dozen participants working for the MRC du Golfe-du-Saint-Laurent, the Littoral Schoolboard and the local Tourism Centre allowed for a first blitz of brainstorming and mutual acquaintance. Two main partners emerged from that meeting: the MRC, for financial support, and the Schoolboard, given how central local education had become to the project. Both partners also worked at the regional scale, as it had been

clear from the onset that no single community could alone carry forward this project. They also allowed for anchoring the project in long-lasting and stable governmental institutions.

Since that meeting, Archéo-Mamu Côte-Nord has been working closely with the Littoral Schoolboard in order to further the project. Second and third authors, affiliated to Université de Montréal's AnthroLab 3D digital laboratory, joined in during the Spring of 2020, to help with the project's digital turn. In the remainder of the paper, we will outline the work that has been completed so far: (i) the digital turn that the project has taken, (ii) the exploratory fieldwork that was undertaken in August 2020, and (iii) the prospects for future work in the region.

Archaeology's digital turn on the Lower North Shore

It could be that the COVID-19 pandemic has accelerated the need for a digital turn in working at (public or otherwise) archaeology on the Lower North Shore. Suddenly, the (physical) distancing that is difficult to maintain in the urban centres such as Montreal, where most of this paper's authors live, was made very palpable, and with it, an immersion within concerns with isolation and how to reach out to others to help overcome it. Equally important was that with fieldwork abroad postponed indefinitely, and with Quebec's regions closed off to one another except for essential services (which archaeology was not a part of), a 2020 return to Blanc-Sablon to carry on research and outreach remained uncertain until late in the summer. It became clear that the project could not be so overly dependent upon the archaeologists' physical presence on the Lower North Shore, and that communities should be given the tools to carry on if this and other crises (or various constraints such as lack of funding) were to happen again. In addition, the Littoral Schoolboard has had to use digital technologies for some time now, in order to reach the various and hard to reach communities it serves. It has been working at creating an online infrastructure (with the help of [Krispii](#)) to make content accessible to its students. This provided with a framework to start working with and, eventually, expand. Broadband, high-speed internet is also being implemented and strengthened in the region.

With that in mind, the idea of building a digital environment came to fruition and led to a first and

general proposal to our colleagues at the Littoral Schoolboard to engage and empower communities in the shaping of this environment through their students (adult and secondary school levels). The logic was threefold. First, students would develop skills in digital technologies that archaeologists use routinely, but that can then be transferred to other, non-archaeological contexts where job offers are plentiful (infographic, videogames, telecommunications, and so on).

Second, students would learn and hone these skills while working at digitally capturing and preserving their heritage. Here, heritage takes on multiple forms: (i) endangered and known sites (such as ROBS); (ii) sites that are simply not known to archaeologists due to their remoteness but that are part of isolated communities' familiar landscapes (such as at Saint-Augustin and Pakuashipi, and any other not connected to the route 138); (iii) private collections that were uncovered and stored over the years by various people who will not want to deal directly with archaeologists and the power structures they represent; (iv) special places (such as endangered architectural features) that would not fit into archaeologists' criteria list for identifying "meaningful heritage" but that are nonetheless important to a community's history and identity.

Third, as this digital environment was assembled piece by piece, in a patchwork fashion, it would be stored on an online server and navigable from home, much like a videogame. Students would collect stories, either theirs, or their elders and others, that would help people travel digitally and educate their attention (*sensu* Ingold 2000). This first public and global outreach would provide a showcase to, at least in the first stage of the Lower North Shore regional development, attract the flux of tourists that transit annually through the other, well-visited sites of Red Bay (Labrador), Port au Choix and L'Anse aux Meadows (Newfoundland), but that seldom stop at Blanc-Sablon or travel westward to Old Fort. Increased tourism means economical development and job opportunities to justify one's investment in a digital archaeology educational program. It would also provide a database accessible for further research.

Archaeology would provide a context and materials with which to teach digital skills. The project is as much our answer to the aforementioned needs, as to

recent concerns regarding digital archaeology. Indeed, while its usefulness for research has been touched upon in various papers (Grosman 2016, Shott 2014), some feel that its use as a public outreach and educative tool is still lacking (Magnani et al. 2020, Martin-Moya et al. 2020). This turn, however, opens up ethical concerns that, in digital archaeology as much as in education and other fields of practice, have not yet been properly dealt with (Burns 2020, Dennis 2020): (i) heritage stewardship (Wylie 2004) and use as a resource for economical development (Hutchings and Lasalle 2015, Wurst 2019, Wylie 2019, Zorzin 2015), especially since it is mostly First Nations' heritage; (ii) data storage and access (Burns 2015); (iii) online visibility and constraints on the kind of message that can be delivered (Le Caroff et al. 2019); (iv) the ecological and archaeological impact of changing the hosting structure for increased tourism and general human flux. These concerns, and others, are addressed elsewhere (Kolhatkar and Martin-Moya, under review and references therein).

August 2020 fieldwork

With regional travel restrictions only being lifted in late June for the Lower North Shore, and with additional paperwork and permit delays, fieldwork was postponed until the end of August 2020, following a grant from the MRC du Golfe-du-Saint-Laurent, and shortened to about ten days. The objectives were as follows. First, to develop digitizing protocols that could be taught to students. These protocols were and are still being developed by digitizing a part of the ROBS site by short-range photogrammetry. Sec-

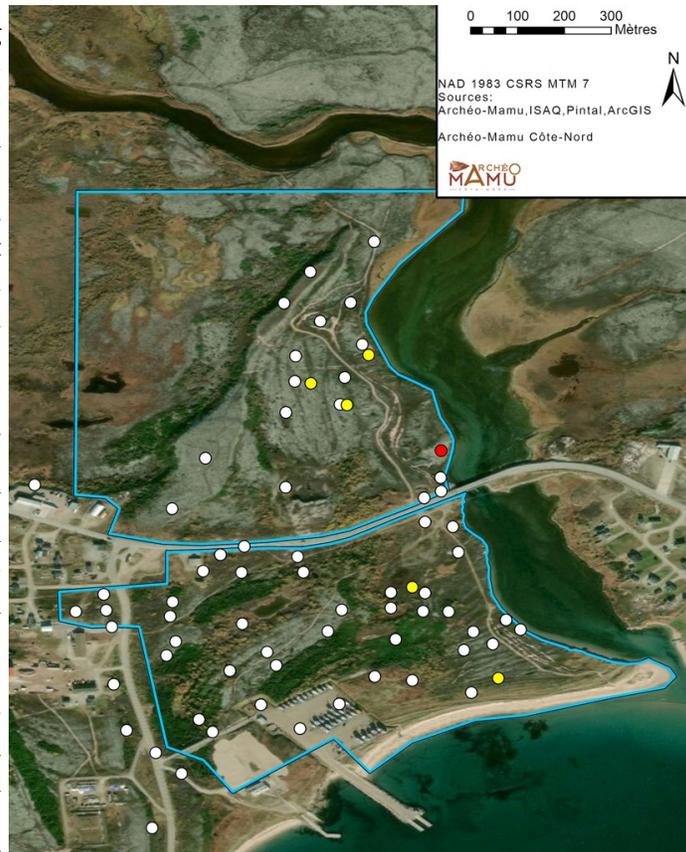


Figure 2: The Rive-Ouest-de-la-Blanc-Sablon (ROBS) classified site, with its 74 known archaeological sites (white dots: sites known prior to 2019; yellow dots: sites discovered in August 2019; red dot: EiBg-159; blue line: limits of the ROBS classified site). Route 138 cuts ROBS in two. (Map: Jason Rappel and Jean-Simon Labbé).

ond, to further investigate the EiBg-159 site that had been discovered in 2019, to assess its potential for a small archaeological field school with students from the local communities. Third, to meet with the Littoral Schoolboard to further work on the digital archaeology implementation within its schools, teachers and student network. An additional objective was added during our time there: expanding our outreach outside of Blanc-Sablon, to some of the other communities accessible by road. Regrettably, no non-archaeologists could be included in the team, given the short time frames and public health concerns that COVID-19 forced us to deal with. Interviews with local and regional media were nonetheless conducted to outline the project. However,

the August 2020 field season prepared the groundwork for a future, more inclusive approach.

An overview of the Rive-Ouest-de-la-Blanc-Sablon (ROBS)

Fieldwork was continued at ROBS, given its familiarity for the Archéo-Mamu Côte-Nord team and in the published literature (Pinal 1998). The site is located on a coastal spit of unconsolidated deposits (sand, gravel and cobbles) whose extremity extends in the sea (Foucault and Raoult 2010). This vast area, of approximately 367 km², was classified in 1989 and partially declassified to make way for the Blanc-Sablon ferry terminal (Figure 2). It is flanked to the west by a coastal barrier and by the road leading to the ferry terminal, to the east by the Blanc-Sablon River, and it is cut in two by the Route 138. Below the coastal barrier, the site is a vast and somewhat flat but irregular fluviomarine terrace with a gentle southward and

eastward slope. Strong winds forbid expansive forests to grow. Patchy forested areas to the west coexist with the shrub tundra landscape that make up for most of the site and hold the unconsolidated deposits together. Strong winds can also create small to vast depressions that, as they deepen, allow for protection from the winds and the regrowth of vegetation. ROBS is a nexus of 74 sites that span 7500 years of history (Figure 2), beginning as early as the Early Maritime Archaic (the Le Templier complex), and whose spread coincides approximately with the receding sea levels (Dubois and Perras 1998, Dyke 2005). Terrace altitude, along with radiocarbon dates obtained for certain sites, has been critical in establishing a historical cultural framework for the Lower North Shore (see Archéo-Mamu Côte-Nord 2020 Annexe A, Pinal 1998 for further details).

Digitizing Rive-Ouest-de-la-Blanc-Sablon

Photogrammetry was the preferred option from the onset, given its relative low cost and affordability for creating photorealistic models and environments. Digitizing vast surfaces such as ROBS proved challenging. While drones are routinely used for such exterior work, they come with further expenses (buying drones and their necessary licences, especially since Blanc-Sablon houses the region's main airport, which forbids drone traffic with no prior level 2 licence). Furthermore, strong winds can prevent a drone from taking off. We uncouple the digitizing process as follows: photo shooting (on-site) and 3D model processing (afterwards, on computers, using Agisoft Metashape).

We opted for a camera (Nikon D7500 with 24-85 mm lenses) mounted on a 5 to 6 metre long pole (depending on the digitizer's strength), and inserted in work belt holders for photo shooting. Systematic lines of visual survey outlining a Cartesian x, y grid that covers the surface to digitize were then walked along both axes to ensure the 80% overlap required for 3D reconstruction. It accounts for approximately 30 to 40 kilometres of walking distance. Cameras were set to manual to keep parameters consistent with the various weather (and ambient light) changes. Photographs were taken every 3 seconds (once every two steps). Two recording phases were taken in accordance with specific sun schedules (before noon and after 3 pm) to ensure consistent lighting and to avoid shadows that create noise during

the 3D model processing stage. Between each photo shooting episode, pre-models were generated to assess whether digitizing was adequate or not.

Photography and preliminary processing lasted for eight days. 18 000 photos and a mosaic of ten dense clouds were created during the field trip, covering 6 km² of the total 367 km² surface area (Figure 3 and 4). Preliminary 3D model processing showed that this protocol afforded for vast surface digitizing without encountering major problems during the process. However, such a large number of photos has several disadvantages: (i) it requires a powerful workstation to process them together; (ii) if there is insufficient computing power, the quality of the models must be compressed with a less textured rendering, thus creating more "noise" on the models that must be removed on a 3D processing software; (iii) an "overly accurate" digitized model with a pixel error at 1 m is not recommended for a digital elevation model (DEM) intended for research purposes. Further, the level of digital compression required to reduce the weight of the 3D model is the main problem for future applications. It will be essential to reduce the number of photos by: (i) adjusting the number of photographs taken per second; (ii) using a less powerful video camera (or GoPro) to extract frames; (iii) or to stitch together part of the model in a 3D processing software. The last two proposals will not allow for precise scientific research (e.g. DEMs) but will be more than enough to produce 3D environments for people to explore.

Evaluation of EiBg-159

EiBg-159 (Figure 2 and 5) was discovered during August 2019, during a visual investigation of the sector north of the 138 road, by the fourth author (Archéo-Mamu Côte-Nord 2020). It is located along the western embankment of the Blanc-Sablon river, approximately 80 metres north of the road, and two metres above sea level. It consists of sandy dunes covered by a thin organic layer, held in place by the presence of lichen, moss, lingonberry, juniper, and willow, and that makes for a somewhat vast and flat but irregular terrace. Local people who visited the excavation site told us that the dunes were still bare 40 years ago, with flakes and tools scattered all over the surface. The coverage of the sandy dunes is thus fairly recent, and provides only partial protection. Indeed, there are two terrace levels. The lower terrace (alt. approx. 0m)



Figure 3: Digital model of the ROBS site, digitized by short-range photogrammetry. Section south of route 138, approx. 180m long. North is to the left. (Model: Diane Martin-Moya and Jean-Baptiste Le Moine).

Figure 4: Digital model of the ROBS site, digitized by short-range photogrammetry. Section north of route 138, approx. 240m long. North is to the left. (Model: Diane Martin-Moya and Jean-Baptiste Le Moine).





Figure 5: General view of EiBg-159, with the Blanc-Sablon river to the left, the route 138 in the background (southwest view). (Photograph: Manek Kolhatkar).

results from intensive erosion. The upper terrace (alt. approx. 2m) seems to be still in place, although it is being gradually gnawed at by eolian and other erosion processes (ATV). These processes have left gradual

Figure 6: A sample of tools (surface findings) found in 2019 at EiBg-159. (Photograph: Manek Kolhatkar).



to abrupt slopes that circumscribe the vast and somewhat flat and 75m x 45m wide lower terrace, where stone and (recent) glass flakes can be found on the surface, together with stone tools.

532 flakes and 17 tools had been collected in 2019, knapped almost exclusively from local quartzite pebbles (Blanc-Sablon quartzite and other quartzite [Figure 6 and 7]). The high number of cortical flakes, coupled with thinning flakes and very advanced bifacial preforms, point to workshop activities covering all stages of the reduction process. Due to time constraints, and because we didn't know in 2019 whether we would come back in the region in a foreseeable future, a 5m x 5m grid was installed to structure the surface collecting. Although flakes could be found all over the site, they were concentrated on the lower terrace. A preliminary spatial analysis of the assemblage had shown that they were almost lined up along a north-south axis, possibly by eastward soil movements due to erosion. However, two big flake aggregates could be identified along this axis, made of simi-



Figure 7: A sample of local quartzite found in 2019 at EiBg-159. Purple quartzite is Blanc-Sablon quartzite, others do not have a specific name. (Photograph: Manek Kolhatkar).

lar flake types (cortex and size-wise). Assuming that non-anthropogenic post-depositional processes would tend to homogenize spatial distributions, all the while keeping in mind that the taphonomic processes of the site have not been thoroughly investigated, this suggests that some kind of discrete assemblage structuring could have been preserved in spite of erosion processes.

The August 2020 fieldwork campaign was aimed at assessing: (i) the lower terrace artifactual vertical distribution; (ii) the upper “terrace” to identify where the flakes had been eroded from; (iii) the locality for a possible future field school. To this end, a 2m x 2m open area was excavated on the lower terrace along the same north-south axis that had been used in 2019, albeit with a 1m x 1m division. Ten 0.50m x 0.50m test pits were placed at various places

along the slopes and upper terraces to acquire a preliminary composite stratigraphic profile of EiBg-159 (Figure 8). All were sifted with 1/4” and 1/8” screens, over tarps allowing for easier backfill and surface preservation. Diggers rested on plywood while excavating to protect the unconsolidated deposits (mainly, sands of various sizes). The excavation area was digitized layer after layer (Figure 9). Test pits, approx. 1m deep in general, were digitized as well, allowing for fine-grained stratigraphic profiles (Figure 10). The site evaluation lasted for five days.

While the analysis is still unfolding (see *Archéo-Mamu Côte-Nord 2021* for more details), the following could be noted:

- 180 flakes and 8 “tools” (from broken bifacial preforms to broken pebbles) were recovered.
- Local Blanc-Sablon quartzite dominates the assemblage (N=103), followed by other quartzite (probably local as well (N=65), and quartz (N=15)).
- 130 flakes and tools come from the lower terrace’s excavated area, and are equally distributed in its excavation pits (N=33). Most flakes come from the top (0-3 cm deep, N=83). All flakes come from the first 16 cm, which consists of three sandy layers whose accumulation is fairly recent. These layers include the presence of green glass fragments. These first 3 layers rest atop the in-situ fluviomarine layers.
- 7 test pits proved positive, but test pit 3, located on the northern side of EiBg-159 (upper terrace), delivered the most flakes (42 flakes, compared to single digit counts for the other test pits), located at 1m deep.
- Some flakes could still be found on the lower terrace’s surface, despite last year’s surface collecting, showing ongoing erosion process.
- The composite stratigraphic profile shows a fluviomarine and dune general setting, with fluviomarine layers covered by either thick dune layers (which could not be passed through when test pitting the upper terrace) or recent accumulation mixing quartzite and glass fragments.

EiBg-159 can qualify as an endangered site, given the strength of the erosion processes. Flakes seem to come from dune layers, and could have been moved from their original setting. No further data on spatial structuration is available right now, given the limited

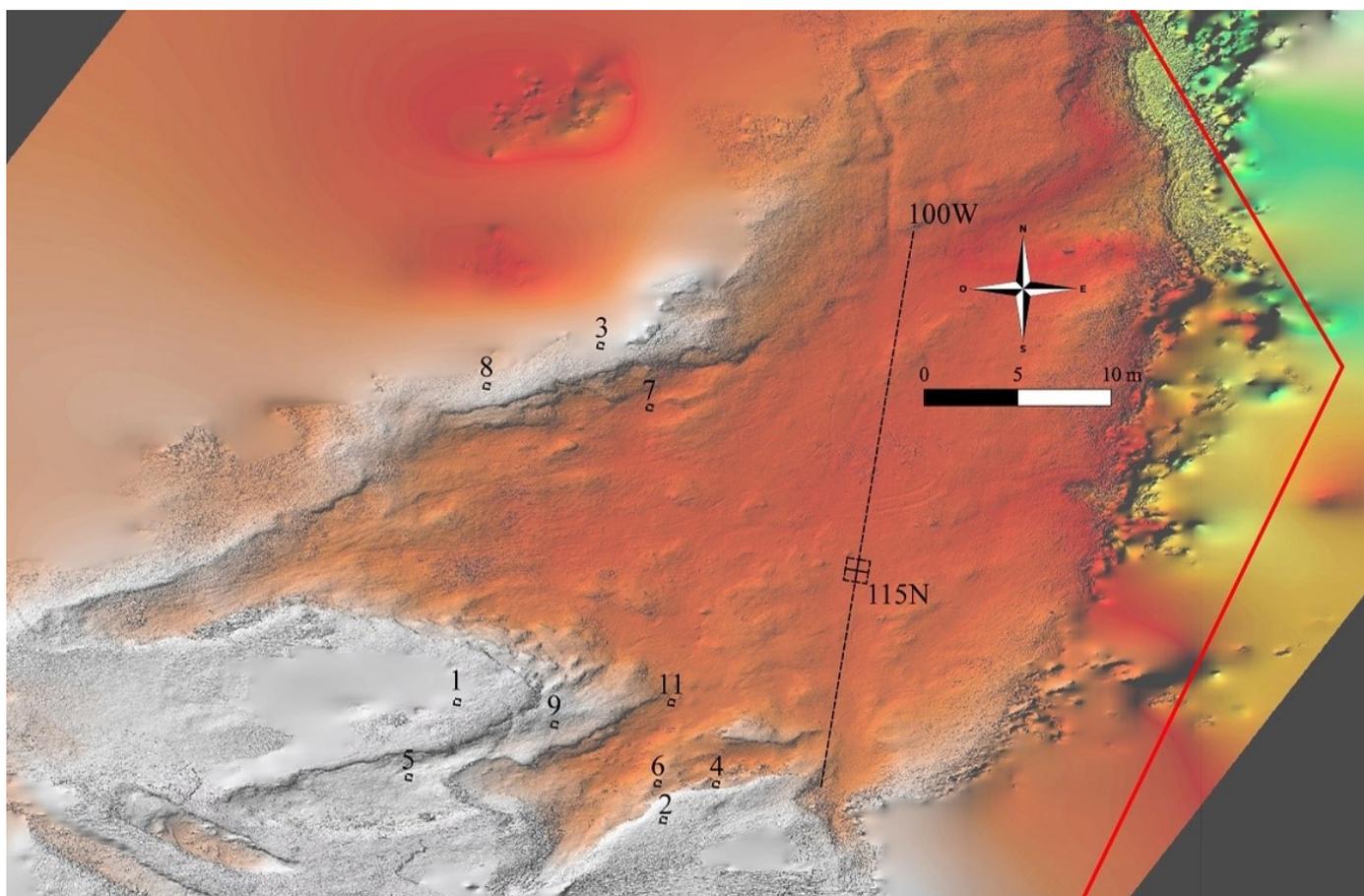


Figure 8: Test pits, excavation area and baseline (100W) implemented on EiBg-159. The red line shows the ROBS classified site eastern limits. Erosion scars and ATV tracks are very clear cut.
(Model: Diane Martin-Moya and Jean-Baptiste Le Moine).

Figure 9: Digital model of the excavation area (2x2m), captured at two different moments, ordered left to right.
(Model: Diane Martin-Moya and Jean-Baptiste Le Moine).



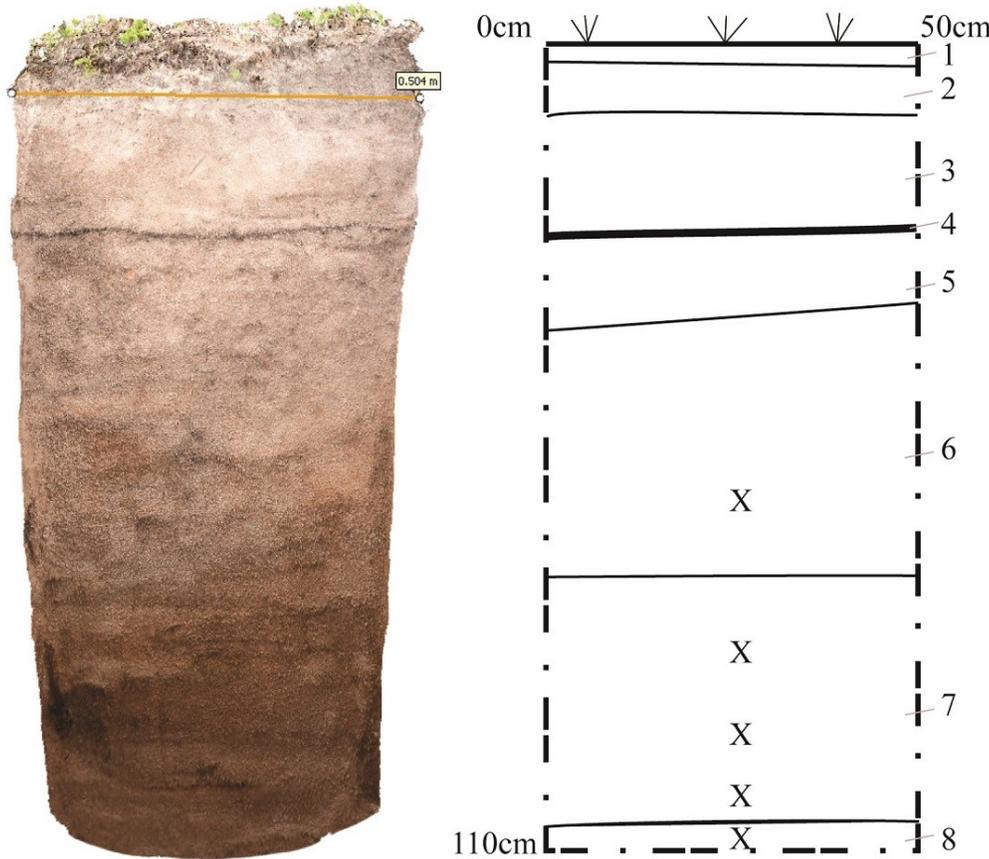


Figure 10: Digital model of test pit 3 (eastern wall). The stratigraphic profile to the right shows various levels of sands, with an organic layer in the upper part (layer 4), in a general dune event. Xs show flake locations.
(Model: Diane Martin-Moya and Jean-Baptiste Le Moine).

scale of the intervention. It might be unwise to further excavate the upper terrace, since it will hasten the destruction of the site, and that artefacts might not even be in their original place due to dune transport. On the other hand, the lower terrace could be an interesting introduction to excavation, context, and stratigraphic principles. It combines a palimpsest of recent and ancient artefacts, on top of clean and horizontal layers of alluvial deposits. It would allow for the further collecting of artefacts and spatial positioning before further ATVs and other activities continue to destroy the site.

Meeting with the Littoral Schoolboard

Face-to-face meetings with the Littoral Schoolboard gave room to further work out the education details and implementation of the project. As noted above, uncertainties related to the COVID-19 and future funding meant that we, as archaeologists, should not be centre pieces in the project's development, and

that we had to find ways to pass along our knowledge, or at least part of it, to local communities. Archaeologists would be important in the early stages of the project, with the end goal being to provide the region with a properly trained local workforce capable of performing both 3D digitalization and archaeological work in an autonomous fashion. Communities would have local resources they could turn to in case of unexpected finds, prior to development projects (housing, road improvement, and so on), or to protect and create a showcase for their local heritage. The Littoral Schoolboard works in concert with the [Tshakapesh Institute](#), an institution akin to a school board (among other things), for Innu secondary schools all over the North Shore, thus greatly facilitating outreach to Lower North

Shore's First Nations communities whose heritage is the project's centrepiece. These institution's stability and regional anchorage ensure that the project's aim can be carried forward and envisioned on the long-term.

Partial autonomy can be worked at in the current provincial legal framework surrounding archaeological research. As of now, there are no legal requirements constraining education and experience for field technicians or field assistants. The Ministry of Culture and Communications of Quebec mandatory research permit [regulates](#) the field supervisor position, and some types of specialists (especially bioarchaeologists). Clients, who award bidding contracts to firms, sometimes add additional requirements (e.g. a Bachelor's degree for field technicians). The newly formed archaeologists' provincial union SNAQ-CSN (MacDonald and Kolhatkar 2021) is currently working at regulating who gets to practise archaeology in

contractual archaeology as part of its collective agreement and its accredited firms.

In order to work towards a partial autonomy, we decided that the best way to proceed was to teach local teachers the principles of digitizing and archaeology, so they could, in turn, teach it to their students (adults and secondary schools). Archaeologists would provide support and assistance when needed. As of now, 3D courses have been prioritized over non-digital archaeology, and teacher education will begin in Winter 2021. Various school directors have expressed interest in integrating these courses, although specifics must still be worked out. Student education is planned to begin in fall 2021. In addition, it remains to be seen whether or not and how 3D might

ment. COVID-19 may have facilitated access to university training by turning to online courses and, unless it reverts to physical training at the end of the pandemic, it has expanded the scope of its reach. It allows people to stay in their communities rather than leaving for estranged and discriminating academic environments. This is especially the case for First Nations' communities, whom universities from Quebec have had a hard time reaching out in any significant ways to fully train indigenous archaeologists and allow archaeology as a field to step out of its colonial structure (see also Burke 2018).

Outreach to the Bonne-Espérance municipality

While conducting our work at Blanc-Sablon, we became interested in other points of interest for our

Figure 11: Digital model of an old house near Eddie’s home, in the Rivière-Saint-Paul archipelago. Various old houses and structures can still be found in the area. (Model: Diane Martin-Moya and Jean-Baptiste Le Moine).



be integrated into history courses as well, along with more traditional archaeological practice (fieldwork, analysis, paper and report writing, and so on). The school board is participating in the “History in Canada. First Peoples Perspectives” [initiative](#) to work at a decolonial approach to its region’s history (or, one should say, its stories) and heritage.

To achieve complete autonomy, a more advanced education (Master’s degree) will still be required to be sought in an accredited university, in order to be granted a mandatory research permit. Again, if archaeological activities were to pick up in the region, it might justify such a time and resource invest-

ment. The Littoral Schoolboard helped us create a preliminary list of people versed in local history along Route 138, all the way to Old Fort. The first (and, unfortunately, only, due to the short duration of our stay) contact we reached out to worked at the Rivière-Saint-Paul Whiteley [museum](#). A last minute meeting was arranged, at which the Mayor of Bonne-Espérance was also present. Again, the combination of education and digital technologies, at the scale of the Lower North Shore, fed a lot of interest and converged with the museum’s and municipality’s need for public outreach and economical and cultural development. A second meeting was arranged to

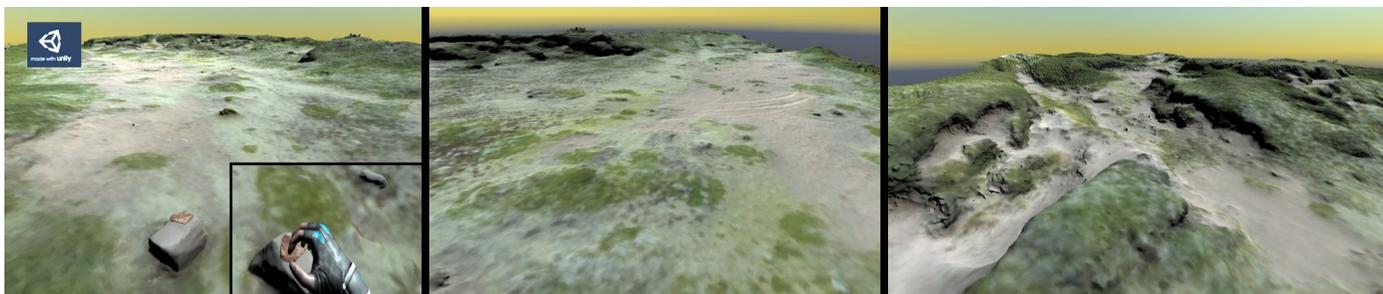
set a boat trip and show us the archipelago near Rivière-Saint-Paul as well as sharing with us some of its stories. Another research project that focuses on Basque sites is ongoing there as well (Fitzhugh et al. 2019). Old and crumbling fishery buildings were partially digitized (Figure 11). Their importance to the local community was restated strongly, along with the need to preserve their trace by various means.

Prospects

The public archaeology approach of this project forces us to envision, from the onset, how the archaeological heritage and its recording will be used. This can be contrasted with CRM archaeology where all four authors have been at work for up to 15 years and counting, and which often results in stockpiling artefacts and reports in storehouses and on hard drives in

out in videogames, or archaeogaming, as it has been dubbed by some proponents of this nascent subfield of archaeology (see chapters in Mol et al. 2017). Initial testing shows that these models can be exported in 3D engines used for powering actual videogames (e.g. Unity and Unreal engines) to revisit the landscape in its digitized version (fig 12). A first-person model was used to allow the player to browse the heritage site and discover artifacts retrieved during excavation. Videogames allow us to envision how all this data can be used. They allow for the creation of concrete projects that allow for local communities to check and see how it is used, and to participate in its use. Importantly, videogames allow for the 3D models that will be generated, much like artefacts and oral heritage, to be storied.

Figure 12: Virtual exploration of EiBg-159 (early prototype), using the Unity engine. The biface was found in 2020, and enlarged for illustration purpose. The small window shows the player's hand picking up the biface. Left view: southward; middle view: northward (with ATV tracks); right view: westward, southern section (massively eroded). (Model and virtual tour: Diane Martin-Moya; FPS controller asset: Aljebros).



order to greenlight further land development projects. Here, all questions and further development were examined through the lens of its use by the Lower North Shore communities, and most of all, how further archaeological developments might participate in a broader education and territorial development project. Gigabits of photographs, hundreds of flakes and dozens of pages of field notes laid the ground for further educational exercises. Teaching people to recognize delicate features in the landscape, down to scatters of flakes, in order to better digitize them, definitely works towards archaeologists' goals to protect heritage and investigate past lifeways. But one must go further, as honing skills may be useless if there are no jobs for which to put them in use. Without jobs, people will continue to leave. And jobs come with further economic development.

A further step for the project's development that we are currently working on should be sought

What and how stories are told is another matter yet to work on. By working with pole-and-camera rather than with drones, we can already get a glimpse at this matter. Both approaches can be compared, in regard to the way they change one's perception of the environment. Indeed, the pole-and-camera option implies a very different approach to the landscape. The drone's top-down, bird's eye view that afforded for one's immobility through vision based knowledge was switched to a more bodily, synergetic way of knowing ROBS through the act of walking. Walking, in that case, implies the following constraints: (i) the strong winds that push and pull the pole and create a continuous tension with the digitizer's arms, back and legs; (ii) the kilometres that must be walked now and again to provide with numerous shots (and reshoots) of the same area; (iii) the terrain's irregularities that hamper one's feet; (iv) a close-up coverage and intimate experience of the landscape where details and

other idiosyncrasies are known through the feet (Ingold 2011, 2013).

In turn, when creating a digital environment and using it to show to others what it is like to live on the Lower North Shore, all these details can come into play. Indeed, as phenomenological approaches to the landscape have emphasized now and again (Ingold 2000), the world is not simply a surface that can be covered through a remote observer's eyes only. It must be embodied to be known, and one's heritage may be as much scatters of artefacts and the presence of abandoned fisheries, as it is the unpredictable weather, the sea, the wind, and how all those fluxes take part in one's experience of the world to shape a body and a community's identity through their sense of place. As an anecdote, this approach to the landscape was so physically challenging that the second author had to take short naps into some of the terrain's depressions to grow back some strength and resume her digitizing efforts. Some adjustments might indeed be needed to the photo shooting methodology.

The very act of digitizing the Lower North Shore on one's feet is already fraught with stories of weather, vistas, places, wind induced land depressions and bodily exhaustion that are as much part of the region as its communities. It can be joined up with other story media (drawings, voice overs, and so on). One recent and very encouraging experience in this regard is that of the Kisima Innitchuna-Never Alone [videogame](#). When navigating the Alaskan landscape, ice, winds, snow, freezing waters are as much part of the experience as the community that the main characters are looking for. Wrestling with Kisima Innitchuna-Never Alone's various fluxes reminded us of particularly windy and exhausting days at Blanc-Sablon. The game is the product of a fruitful collaboration between the Iñupiaq community and E-Line media. It was driven by the community's willingness to engage with their younger people, embracing new technologies in the process while preserving Alaskan Native culture and storytelling. This new genre has had a much more positive impact at the international level than expected by the community, allowing them to debunk stereotypes conveyed by popular culture but also to re-invest in the digital education of young people in Alaska Native communities (Cook Inlet Tribal Council 2017).

Public and collaborative archaeologies have allowed archaeologists to reframe their practice to present-day concerns. This indeed helps in working through reframing non-archaeologists' expectations about the practice, and in finding common grounds on which to work together at rethinking the field: its role, its place, and its field of action.

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An Early European Burial Ground at Bloody Point, New Perlican ClAi-12 Bloody Point 2, New Perlican, NL

Shannon Lewis-Simpson, Maria Lear, Rita Uju Onah & Elsa Anastasia Simms
Memorial University of Newfoundland



Figure 1: Location of Bloody Point 2 survey area.

In the fall of 2019, Maria Lear, Shannon Lewis-Simpson, Rita Uju Onah and Elsa Simms surveyed a previously unrecorded potential burial ground at Bloody Point, New Perlican. The work was conducted as part of a broader, interdisciplinary research

project between the New Perlican Heritage Committee, Heritage NL, Student Life, Folklore, Archaeology, and the Centre for Social Enterprise, School of Business, and the Office of Public Engagement. Preliminary findings of the field survey and ground-penetrating radar survey support the presence of a burial ground at Bloody Point 2, with at least two disturbances detected by ground-penetrating radar which are probably graves, and 19 grave markers, one quite a bit younger than the rest, and probably not in its original location. Historical evidence and the form of visible markers suggest this burial ground may predate 1832, when the first St. Mark's Anglican Church was dedicated. This burial ground at Bloody Point likely dates to the 17th or early 18th century (Figure 1).

New Perlican is an area rich in archaeological resources of many cultural groups. William Gilbert's survey of the area in 2001 recorded the presence of several sites pertaining to early English settlement associated with Cupids in the historical record, with continental pottery, pipe stems, and other material culture typical of the mid-1600s, and later. New Perlican is one of the oldest fishing stations in Trinity Bay. The Hefford Plantation, situated across the harbour from Bloody Point, was



Figure 2: Visible grave markers, on E-W alignment.

settled by William Hefford and his family in 1675, and the land has been continually settled by the same family to this day.

William Gilbert conducted some test excavations at the end of Bloody Point (CIAi-07), now designated as Bloody Point 1. This location was thought locally to be the site of a fort, but no European material culture was recovered during these excavations. Indeed, a chert core fragment was recovered from the site, indicating an Indigenous presence.

The burial ground at Bloody Point 2 has not been previously recorded in earlier archaeological surveys. Bloody Point 2 is located further north on the headland from the younger St. Mark's Cemetery (CIAi-11), a known but overgrown cemetery in New Perlican, with over 300 visible markers. The church was dedicated in 1832. Every inscribed stone at St. Mark's dates from the 19th century, but the majority of markers at St. Mark's are of unmarked fieldstone, perhaps marking earlier burials. Based on historical evidence and the form of the markers at the site, it is likely that the burial ground at Bloody Point 2 predates the 1832 dedication of St. Mark's Church and its associated graveyard (Figure 2).

Our task, on October 31, 2019, was to confirm the presence of a burial ground through ground-penetrating radar and visual survey. Community mem-

bers Cyril Sturge and Eileen Balsom Matthews, Dave McDonald and landowner Ray Coombs helped us locate the place and other features. We could see 7-8 visible fieldstones that were placed roughly in a linear alignment upon a grassy embankment overlooking New Perlican Harbour (Figure 3).

We cleared the site to ensure all stones on the surface were visible, and Maria's equipment could be used properly over the ground. We laid out two grids to give the greatest extent of coverage over the ground. Preliminary analysis of the data has suggested several locations of possible sub-surface remains. The analysis of the data during the post-process phase can allow for suggestions of possible sub-surface remains but cannot be guaranteed without excavation, which is not planned for this burial ground.

Two areas of interest are the red/yellow contrasts which are in the area of headstones 3-5 (truncated) as well as headstone #6. The red/yellow oblong feature (bisected by a thin red line) associated with headstone #6 is of the expected size of a historic grave as well as fitting with the Christian E-W alignment.

Preliminary Conclusions

There are 19 stones which can be viewed as grave markers for as many as 10 graves; some stones are probably best interpreted as footstones rather than headstones. All

of these stones are made of local stone, grey slate or sandstone, with the exception of #19. This stone is some distance from the others, it has a winged angel and hour-glass motif on commercially produced white marble. The headstone is cracked, and no base could be located. There is a faded inscription on the stone, [JAMES _____]. It is likely the stone is not in its original location, but why it was moved, and how, and when, is not known at this time (Figures 5 & 6).

The newly recorded burial ground at Bloody Point 2 likely predates the dedication of St. Mark's Church in 1832. The extant grave markers are aligned in two rows, NE-SE, following the natural slope and facing the sea. Preliminary GPR results reveal two disturbances aligned with a headstone broken in three sections (#3-5) and a single stone #6, which means there are at least two graves in this burial ground, and potentially more.

Further work will be continued by Memorial University PhD student Robyn Lacy who will work with the community to examine the relationships between all burial grounds in New Perlican and surrounding area, and how the sites were used by the peoples who lived there.

Figure 3: Dave McDonald and landowner Ray Coombs stopped by to discuss the usage of the land. The field where the headstones were located was not farmed and was fenced. There was also a collapsed root cellar to the southeast corner, closer to the house in the background. L-R Dave McDonald, Ray Coombs, Elsa Simms, Maria Lear, and Rita Onah.



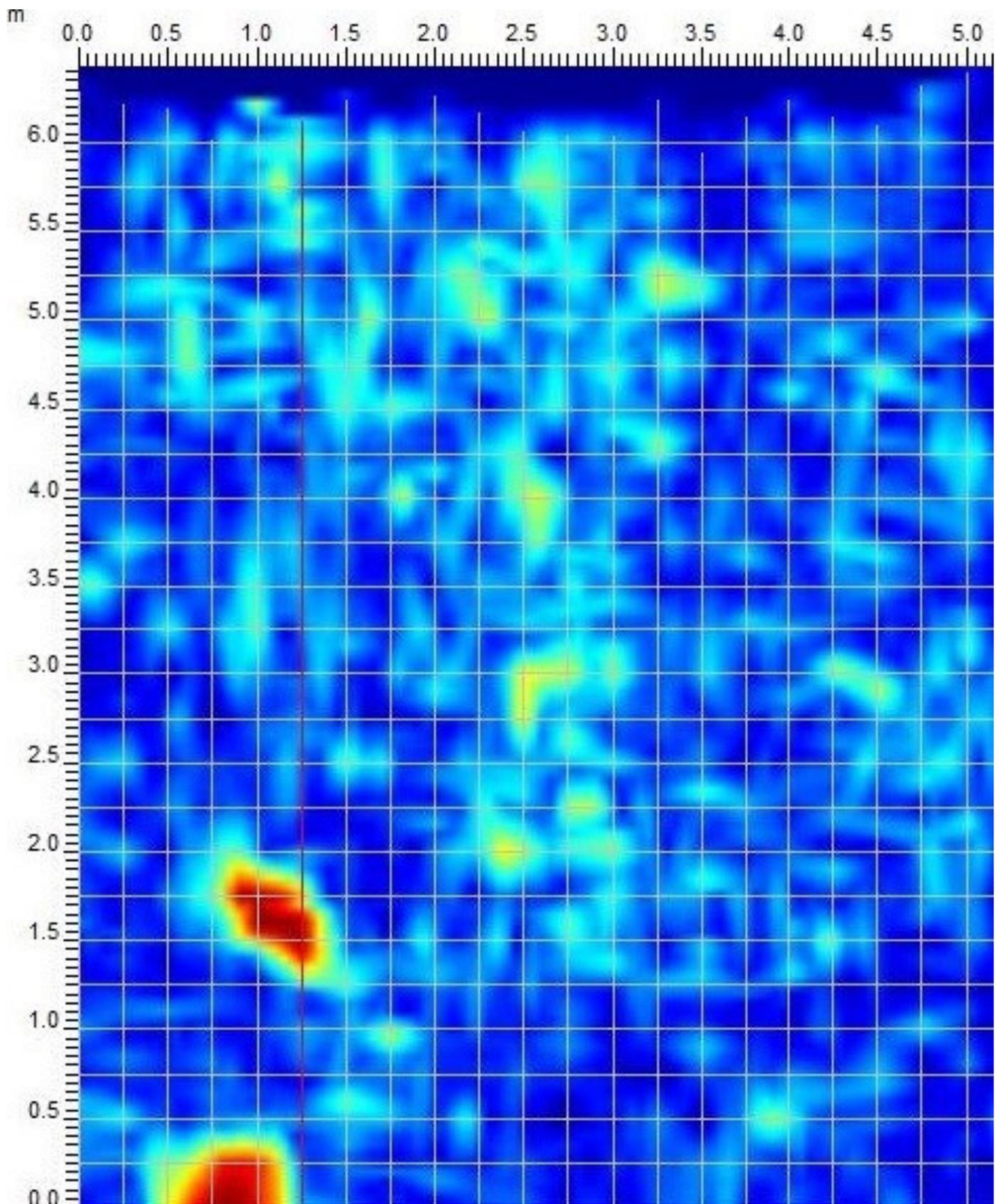


Figure 4: Two areas of interest in red and yellow indicate subsurface disturbances, likely graves aligned east-west.

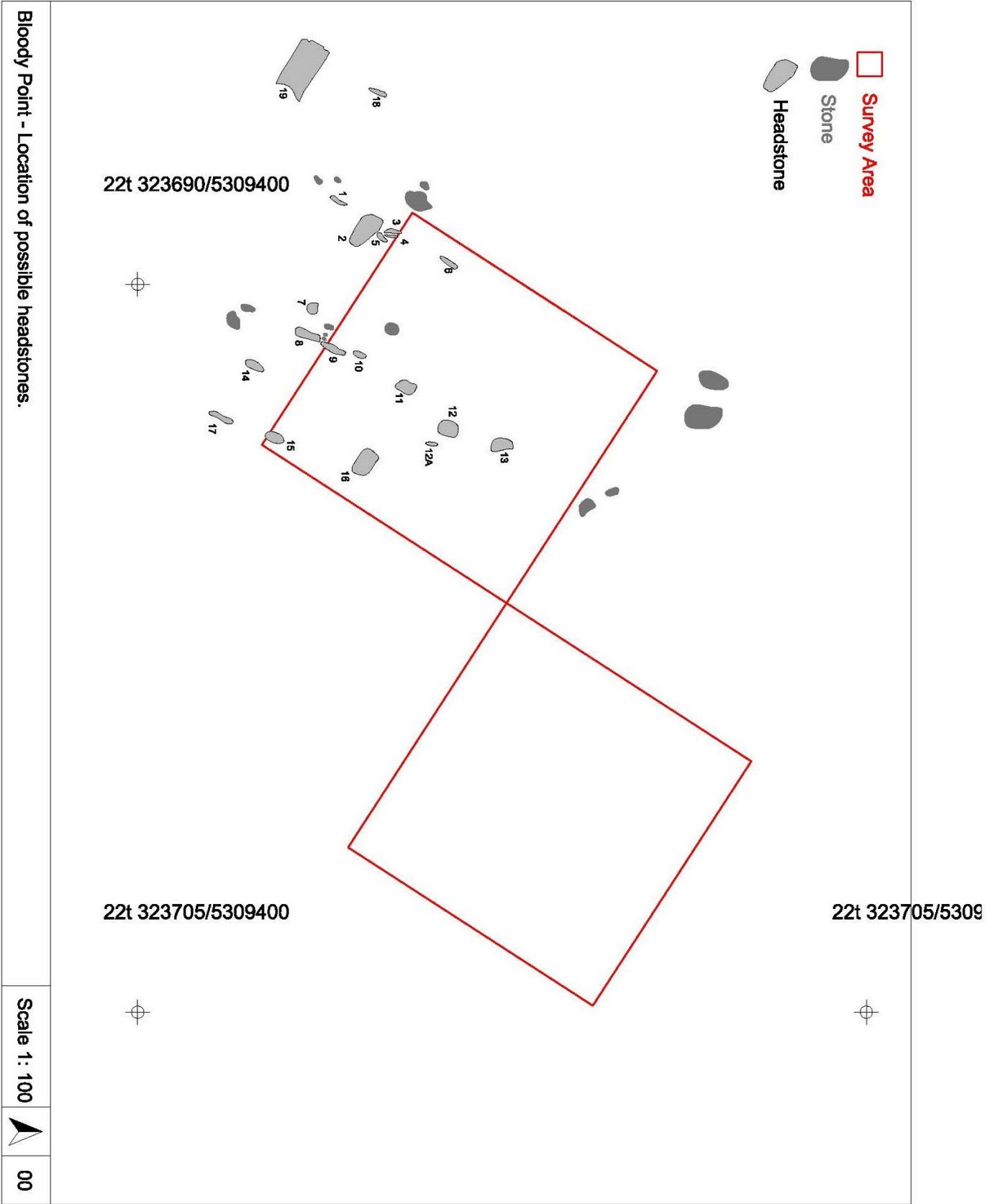


Figure 5: A site plan of GPR survey area and grave markers visible on the surface (map: Toby Simpson).



Figure 6: Stone #19 of white marble outside the far SW corner of the burial ground. You can see the other smaller field stones in the ground to the northeast.

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Landscape Archaeology: an Historic Graveyard in Trinity Bay

Kevin McAleese
Independent Researcher



Figure 1

Introduction

Historic graveyards with standing headstones are a common site/feature in Newfoundland and Labrador. The Trinity Anglican Churchyard /Graveyard, used from ca. 1753 - 1880, has about 188 standing stones, many finely inscribed though quite a few are barely legible. A fair number of them are in need of restoration/repair (Figures 1-5, 7).

Many archaeologists consider headstones an archaeology database representing cultural past and present. They are inscribed artifacts, well-dated with personal identifications in a ritual, community setting. This study uses headstone chronology and style, plus associated documentary and oral history, to investigate headstone style as a reflection of community settlement patterns, plus health and spiritual beliefs. Relatedly, the conservation of the deteriorating headstones will be discussed.

Research Background

The author's previous archaeological research (1993/94) at the Lester/Garland Premises (Trinity) provided background on merchant premises/operation, including some general information on the vibrant 18th-19th c. merchant/servant connections between Trinity and Poole, England.

That cultural connection led to the establishment of St. Paul's Anglican Church, which since 1730 has been

directly associated with the Trinity Anglican community. The present church (ca.1894) is built on the site of the first church, erected in 1730. Conversely, a second church ca. 1820, was positioned in the current churchyard/graveyard at an unknown location (Figure 2-rear left).

Though 188 stones are recorded for the graveyard, over 2000 individuals are presumed to be interred there from ca. 1753 – 1880, based on archiv-

Figure 2



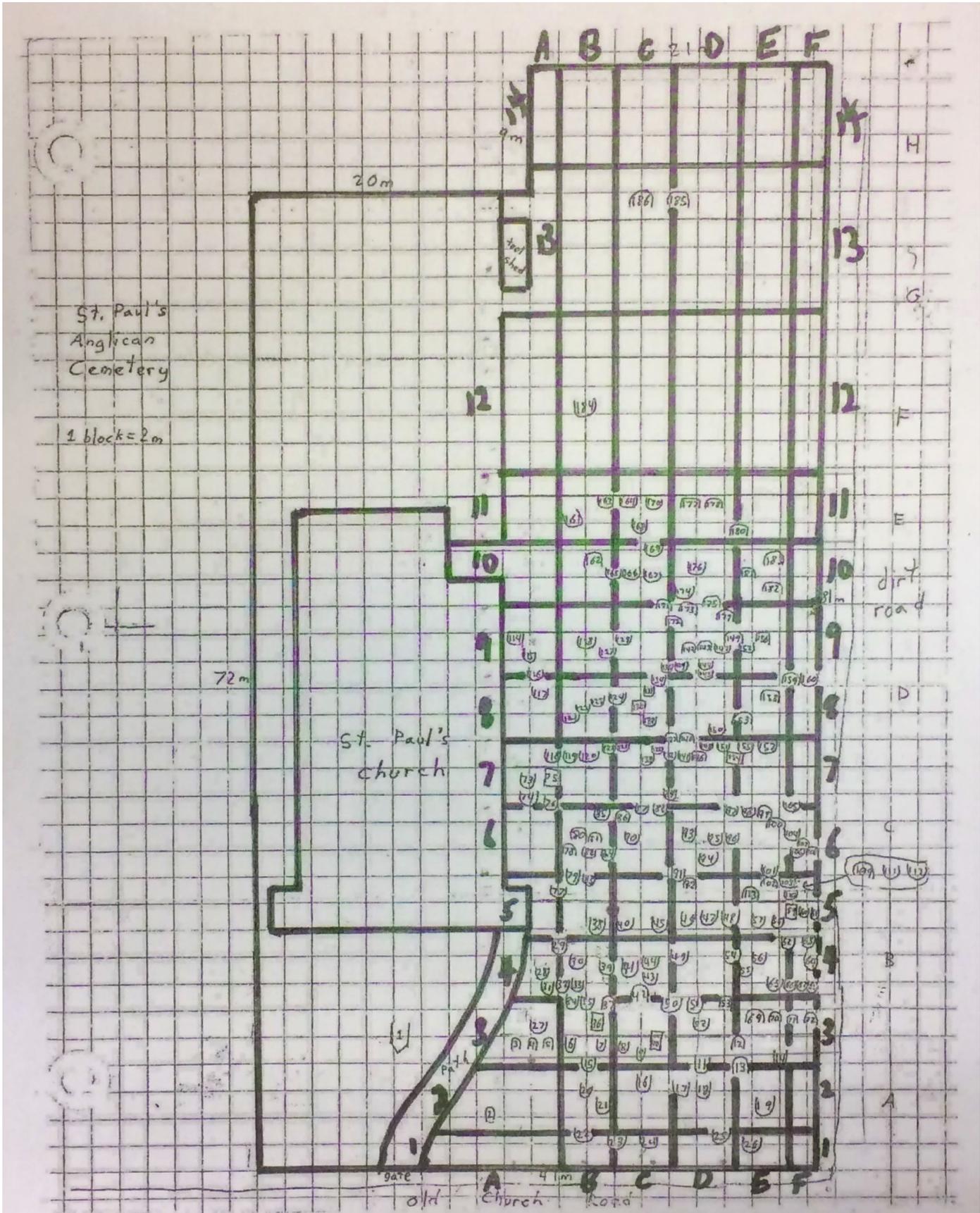


Figure 3



Figure 4

al studies. This headstone research will add to that historic record (i.e. decorative style, manufacturing technique/lithic analysis, trade/economic function, weathering/ conservation, literary/artistic/spirituality character etc.). Some non-destructive archaeological method, such as surface/sub-surface geochemical scanning of headstones/fragments, will be attempted.

Fieldwork

A few days of photography and ground survey was done, along with a drone overflight of the churchyard (Figures 1, 2). Personnel from the Trinity Historic Society assisted the author, as they did with some preliminary archival

research at the Trinity Historic Society Archives. Maps and tables of burial records data were also reviewed (Figure 3), providing the author with an overview of the graveyard and a substantial quantity of headstone and grave-related data.

Data Analysis/Discussion

Analysis is in progress and preliminary results will be forthcoming in a 2021 report. A few observations deal with style, positioning and dating of Churchyard headstones:

1/ Motifs featuring angels/cherubs and/or death heads are prominent, the latter more so on the early 18th c. stones (Figures 4, 5). Cherubs, flowers and human skull motifs are just a few of the artistic style symbols (see Stonepics) whose carving craftsmanship will be studied here. Other archaeologists have studied these styles, such as in Boston graveyards (Deetz 1977; 1996) where they have been used as a means to date stylistic change. 18th c. changes in the headstone symbol of a death's head with wings evolved over approximately 60 years and led to a much simpler version of the original motif (Deetz 1967: 32, 33). This seriation change is linked to stone carvers and also to evolving English settler religious belief in the 18th c. The Trinity headstone symbols will be assessed with those interpretations in mind.

Figure 5





Figure 6

Literary/Biblical/ Ecclesiastic references in headstone epitaphs also reflect common religious beliefs. For example Arthur Buchanan’s 1870 Trinity headstone inscription: “Rock of ages, cleft for me,” references a popular Anglican hymn published in 1776 in which “taking shelter in God” is advocated and praised.

In terms of cause of death, headstones are not usually good sources. But the burial records compiled by Trinity Anglican Ministers occasionally offer that information. For example one Minister in November 1757 recorded in his burial record that Trinity resident Benjamin Suly drowned, a com-

mon danger for Trinity fishers. Burial records then provide another snapshot of evidence re studying the Trinity community’s medical health.

2/ Many headstones appear to be of similar geology /manufacture/ composition (Figures 4-6). Purbeck Coast geology near Poole, Dorset has a significant economic history producing marble and high quality dimensional stone (Figure 8). XRF technology research on headstones and on Purbeck Coast quarry specimens/ operations may help identify headstone geology manufacture and trade linked to this Poole area stone source.

3/ The Anglican Church once located in the Churchyard may be located in a central location now slightly raised (Figure 2 -rear left). Delineating its boundaries may be done via careful surveying of the headstone dates within and bordering the raised ground. It is likely that headstone dates older than the Church should be positioned on the “outside” of the Church foundation while younger burials should be positioned inside of it.

The use of Ground Penetrating Radar (GPR) to locate probable foundation remains would be appropriate here. The ambit or bordering ground strip that would have surrounded the former church foun-

Figure 7

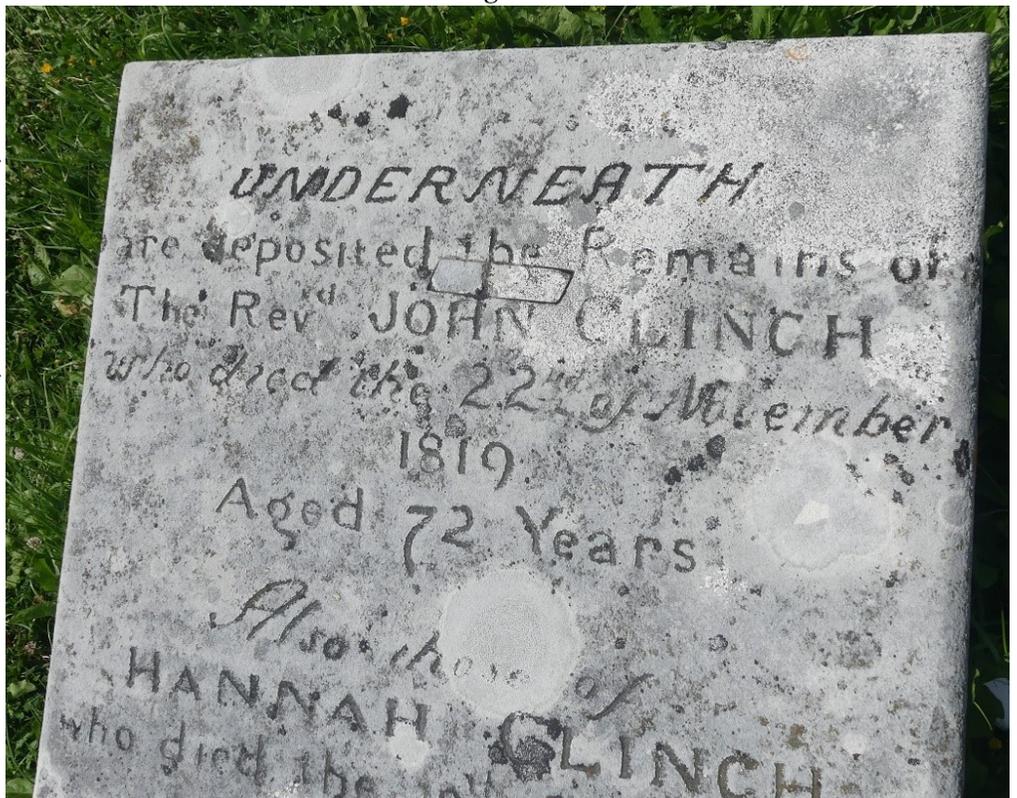




Figure 8

dation, plus the said foundation, may be discernible via GPR (Figures 2, 3, 8).

4/ On occasion the clustering of deaths in the gravestone record may be proxy evidence for the Trinity community and/or region experiencing dietary stress or disease. With enough community health record study it might be possible to compare that with the churchyard/gravestone data in order to develop a Healthscape of a Trinity regional population ca. 1753 - 1880.

For example there was a lack/absence of medical health services in Trinity in the mid-18th c. Benjamin Lester, a powerful Trinity merchant, lamented that only one doctor was available, and that he was not very proficient (Beamish et. al. 1976:90). Yet in contrast to that complaint there is the noteworthy “first in the new world” introduction in 1798 of the [smallpox vaccine](#) by the Trinity Anglican Min-

ister [John Clinch](#) (Figure 7), a boyhood friend and medical colleague of English Dr. [Edward Jenner](#).

5/ Headstone deterioration is ongoing and poses a real challenge to research here (Figures 4-6). This study will add to documenting the extant record of that process, which should assist the Trinity Historic Society with their efforts to mitigate the erosion problem, as well as provide the Provincial Archaeology Office with some baseline data for graveyard heritage management.

Conclusion

This preliminary report offers only a very lean account of the data collected and analysis conducted. More substantial results will follow. 2021 fieldwork at the St. Paul’s Churchyard (proposed) will help refine these early assessments.

Acknowledgements

Thank you to the Provincial Archaeology Office for issuing Permit 20.23, and to my Permit proposal referees Martha Drake (retired Provincial Archaeologist) and Drs. Vaughan Grimes and Michael Deal (retired), Memorial University Archaeology Department.

The Trinity Historical Society and the St. Paul’s Anglican Church Vestry generously shared a substantial amount of archival data compiled over the last twenty years. Ian Morris, Kevin Toope and Jim Miller in particular have been most helpful with all aspects of this study.

Technical and academic advice was provided by Don Parsons, Parks Canada and by Rob Thompson, along with much valuable logistical and photographic support. Dale Jarvis, Heritage Newfoundland, recommended many useful online headstone research databases. Thank you all.

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[Newfoundland Cemeteries Family History & Genealogy \(stonepics.com\)](#)



Recovering a Touladi Chert Core: A Short Stop on Green Island

Chase K.A. McLean
Independent Researcher



Figure 1: Green Island.

Introduction

On Sunday, August 9th of 2020, the author and several friends and family members put in three canoes at the Saint John River landing in the town of Florenceville-Bristol, New Brunswick. Every time we do this, my companions and I make a brief stop on Green Island. This is used to stretch our legs and is viewed as the half way mark from where we put in at the Bristol canoe launch, and land our canoes in Florenceville on the eastern bank of the Saint John River across from the old town hall. The Saint John River is full of potential to find more, as of yet, undocumented archaeological sites. Its temporal use encompasses the traditional First Peoples of New Brunswick for thousands of years, the colonial explorers who arrived from Europe during the 16th century and those using it in the present day. The Saint John River was not only used as a rich water source to fish, but as a very large, fast and efficient

method of travel. This report sheds further insight as to how archaeological materials may have travelled on this ancient waterway.

Findings

At approximately 3:00pm on this sunny day, we landed our canoes on the northwestern side of the island. We proceeded to walk around the shoreline for around half an hour, until I came across a chance discovery. At this time of year, the water in the Saint John River was drastically low as this region was caught in draught conditions. Laying on the beach cobble, the author spotted a light blackish chert material that looked as if it had been artificially

worked. This stone was not familiar to me as naturally occurring along the Saint John River.

I picked up the stone, and was quickly able to tell that it was water rolled (as it would've only been visible in its present state due to the low water). Both the ventral and dorsal surfaces of the stone display striking marks where debitage was likely taken off to use for different purposes or to turn this into a different kind of formal tool. Due to the likelihood of the water rising in the near future and this possible artifact being lost, I decided to collect it and report it to Archaeology and Heritage Branch (New Brunswick Archaeology Guidelines 2012). After meeting with the Director of Archaeology and Heritage Branch, Brent Suttie, he confirmed that it is indeed a chert core originating from the Témiscouata Lake region, in Quebec (personal communication) (Figure 2).

Upon further archival research and in communication with Archaeology and Heritage Branch,

the author finds it relevant to note other archaeological sites near this find spot. The nearest pre-contact archaeological site to this newly registered find spot is 1.5km south from Green Island. This find spot marks the first archaeological site on Green Island, and it is in the process of being registered in the provincial database of archaeological sites (Figure 3).

Interpretation

In Dr. Michael Deal’s article, “Aboriginal Land and Resource Use in New Brunswick during the Late Prehistoric and Early Contact Periods”, he cited the works of two archaeologists (Burke and Chalfoux) who identified two



Figure 2: Touladi chert core laying disturbed on shoreline (right side of photo).

Figure 3: The core is approximately 11cm long and approximately 8cm wide.



quarries and several workshop sites at Grand Touladi Lake, in the Témiscouata region of Quebec. This landscape connects the upper St. John River with the St. Lawrence River. It has formed part of the historic Wolastoqiyik territory (Erickson 1978: 124). Access to the Saint John River Drainage system suggests that this material is also likely to be present, but as yet unidentified, in lithic assemblages of sites along the central and southern portions of the river (Deal 1998: 10).

The author interprets that since this find spot is disturbed and essentially completely out of primary context, it is only ethical to report on what we know from the historic record and oral traditions. There is

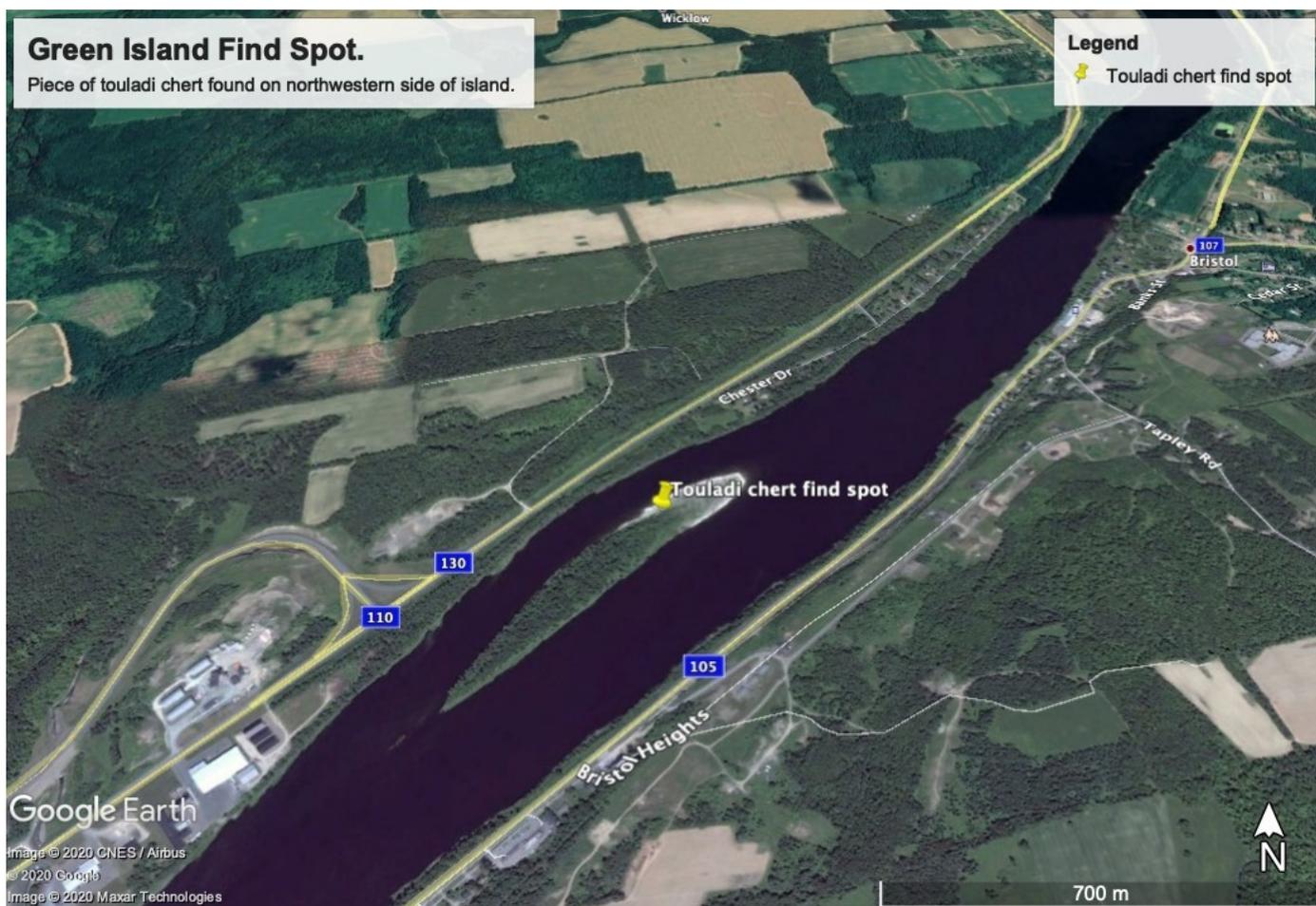


Figure 4: A Google Earth map indicating the find spot of the artifact.

strong evidence that the quarry area where this touladi chert core may have come from is eastern Quebec (Burke and Chalifoux 1995), and it could have been manufactured by the Wolastoqiyik or other First Peoples and brought down the Saint John River through the Madawaska Portage Route. The Madawaska River acts as a connector to the Témiscouata Lake region from the St. John River, so it is very possible for this route of travel to have taken place. Témiscouata Lake is approximately 148km away from where this artifact was recovered on Green Island. This indicates the artifact most likely advanced through this method of travel. In finding this uncommon lithic in this region of the Saint John River Valley, archaeologists may be able to identify themes such as trade and the exchange of lithic materials between different groups of First Peoples in this part of Atlantic Canada (Figure 4).

Lithic styles are very similar to those found on sites on L’Isle Verte as well as in Témiscouata and closely resemble those from the Maine-Maritimes re-

gion in contrast to lithics found in the St. Lawrence Valley (Burke 2000), (Chalifoux et al. 1998). Different kinds of chert such as Munsungun, Tobique and Touladi have been found on Middle Woodland and Late Woodland sites at L’Isle Verte in the St. Lawrence Estuary (Burke 2001). This supports dating this stone tool based off of similar styles of lithics found on the sites from L’Isle Verte from the Middle and Late Woodland periods. However, since this was from a single find spot the author believes it is not appropriate to keep that as a sole conclusion. As the only context that remains to placate this newly documented archaeological site is this single find spot; the author’s interpretation will be strictly reserved in the conclusions made regarding the artifact (Figure 5).

Conclusion

In producing these comments, it demonstrates the unexpected potential of finding archaeological materials in the physical landscapes of our communities. Community members can be an essential help in the preservation and recording of artifacts. The family



Figure 5: Locations discussed.

members and friends who joined the author on this quick canoe trip were incredibly interested in this artifact, and took further insight of the vibrant history behind the First Peoples of New Brunswick and Quebec. They are now also aware of the importance of reporting archaeological find spots in order to preserve whatever contextual information remains. Through collaborative measures, archaeologists can continue to build connections with members of the public in order to educate others on the importance of saving these finite resources of the human past. This touladi chert core is a lithic material that is uncommon to the middle of the Saint John River Valley region, and this provides possible evidence of materials leaving quarries in the Témiscouata region and travelling via portage routes to the Saint John River Valley. Further research and fieldwork in this part of New Brunswick is required.

Acknowledgements

I would like to thank Dr. Adrian Burke for his personal correspondence this fall by looking at images of

the artifact and for sharing his vivid knowledge of lithics from the Témiscouata region. I also thank my superior Brent Suttie for examining the artifact and encouraging me to produce a short report on this archaeological find. As a young archaeologist and graduate student, it is very appreciative to have generous and productive help from those who are experts in their fields.

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Archaeological Surveys of Costigan Lake (South of Red Indian Lake), and Charles Brook and Charles Brook Pond (Bay of Exploits), in the Exploits Drainage, Central Newfoundland

Fred Schwarz
Black Spruce Heritage Services



Figure 1: Detail from Howley's 1875 map indicating the location of the "Wigwam, Aug 1st" identified by him on the point at the northeast corner of Costigan Lake (from PAO 2020a).

Introduction
Since 2010, the Provincial Archaeology Office (PAO) has funded Directed Research projects in the Exploits Valley focusing on the relocation of Beothuk sites, house pits and related features.

In October, 2020, the author undertook two such surveys on behalf of PAO: one a targeted archaeological survey of a potential Beothuk site located on the north side of Costigan Lake, near Red Indi-

an Lake, and the other an archaeological survey of Charles Brook and Charles Brook Pond, on the west side of the Bay of Exploits.

Costigan Lake

Archaeological survey was undertaken on Costigan Lake in October 2020. The intention was to complete a survey of the entire lakeshore, but owing to difficulties with road access, it was not possible to complete a boat-based survey of the entire lake as planned, and instead the survey focused on the point of the location of a possible Beothuk camp (the "Aug 1st Wigwam" on Figure 1) identified on Howley's 1875 map of his survey of the "Upper Waters of the Exploits River" (Murray and Howley 1881; PAO 2020a). This wigwam, registered as DdBg-01,

had not yet been verified on the ground, but was indicated by Howley as being located inland from a prominent point of land at the northeastern end of the lake, toward the base of the point. Pedestrian survey indicated that the point itself is not suitable for settlement. Only one small area (Testing Location CL20-1) was amenable to testing and the excavation of four test pits yielded negative results (Figure 2, Figure 3).

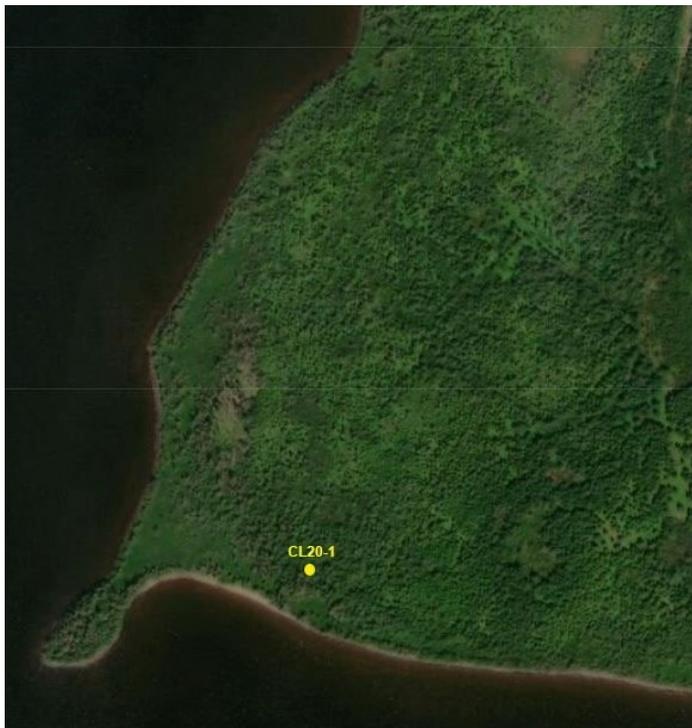


Figure 2: The “Aug 1st Wigwam” point of land on Costigan Lake, showing the location of 2020 subsurface testing location CL20-1.

Figure 3: View west toward the tip of the point at Costigan Lake. The narrow but conspicuous beach at the right was the only expanse of beach observed on Costigan Lake during the survey.





Figure 4: Charles Brook and Charles Brook Pond, showing the 2020 subsurface testing locations. Note the proximity of Charles Arm, New Bay, at top left.

Finally, further investigation of the wigwam sites Howley recorded in 1875, not just on Costigan Lake, but also on Red Indian Lake and, most notably along the Victoria River, should consider the possibility that some or all of these features may pertain not to the Beothuk, but to the mid-19th-century Mi'kmaq occupation of the southwestern Newfoundland interior. This does not lessen the potential significance of these sites, as mid-19th-century Mi'kmaq land-use in Newfoundland is not generally archaeologically well-documented (for an exception, see Penney and Nicol 1984).

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**Charles Brook and Charles Brook Pond**

Archaeological survey was undertaken on behalf of the Provincial Archaeology Office (PAO) on Charles Brook and Pond in October 2020. Given the historic significance of this area as it relates to the Beothuk, and the limited previous archaeological work, the intention was to undertake a survey of the shoreline of Charles Pond and Charles Brook west of Route 352. One particular objective was to identify the location of a particular wigwam attacked by employees of Harry Millar on Charles Brook Pond in 1791 and described in an account in the Pulling Manuscript (Marshall 1989; Howley 1915; Hewson 1983:16). This wigwam site may or may not be the same as the site of multiple (abandoned) wigwams, likely on Charles Brook Pond, recorded by Captain William Glascock 28 years later in 1819 (see Howley 1915: 115).

Pedestrian survey indicated that the shorelines of Charles Brook and Charles Brook Pond are for the most part characterized by bedrock ridges and outcrops, often steep and high, and flanked by scree slopes (Figure 5). Such landforms may be suitable as lookouts, and were amenable to surface inspection. However, little terrain along the shore or behind it is suitable for dwelling sites. Nevertheless, three loca-

It is hypothesized that Howley's "Aug 1st Wigwam" may have been present in this location but that it was a relatively ephemeral occupation leaving little or no material remains, and that the wigwam Howley observed may have been a mid-19th-century Mi'kmaq dwelling rather than an early-19th-century Beothuk structure.

The results of the 2020 survey on Costigan Lake suggest that Howley's "Aug. 1st Wigwam," (DdBg-01), although it almost certainly existed, is unlikely to be located by further assessment. Further survey on Costigan Lake, including the remaining unsurveyed shoreline, depends on either repair of existing access roads or development of new access to the lakeshore. Future development should be monitored to identify opportunities for archaeological survey, not only on Costigan Lake, but along other waterways in the area. Should the Costigan Lake shoreline prove practically accessible to a boat-based survey in the future, there are locations on the lake that warrant further investigation, including the outflow of Costigan Brook, and the southern end of the lake, where several points of land are associated with a potential portage route via a chain of small ponds and bogs to the northeastern end of Long Lake.



**Figure 5: View South across the northeast arm of Charles Brook Pond. DiAt-10 hill at far left, testing location CBP20-1 near tip of point to right. This photo was taken from the high bedrock ridge flanking testing location CBP20-3 (out of frame, to the right).**

tions were identified which offered suitable terrain for settlement (CBP20-1, CBP20-2, and CBP20-3). All three are situated in the northern portion of Charles Brook Pond (Figure 4), and all three are potentially compatible with the account in the Pulling Manuscript. One of these (CBP20-1) is a narrow point only large enough to hold a single wigwam, but the remaining two locations are large enough to support multiple dwellings, potentially compatible with Glascock's account as well. Subsurface testing at these locations was negative, yielding no cultural material.

Testing location CBP20-1 is extremely small, as noted, while testing location CBP20-3 appears to have suffered extensive 20<sup>th</sup>-century disturbance; if this latter were the site of the historically-documented late 18<sup>th</sup>-century - early 19<sup>th</sup>-century Beothuk settle-

ment, there is no evidence for it and the prospects for intact *in situ* deposits are slim. Testing location CBP20-2 was tested with negative results, but heavy blow-down prevented complete testing. This location is suitable for habitation and remains a location of high archaeological potential.

Background research highlights the extent to which, in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, Charles Brook was the strategic point to where Beothuk in the Bay of Exploits fled when they hijacked boats or otherwise feared violent encounters or reprisals from European salmon-fishers along the bay. The reason appears to be that Charles Brook and Charles Brook Pond offered easy travel (and in the case of the Beothuk, easy escape) to more distant areas. Only a short portage is required to travel from Charles Brook Pond on the Bay of Exploits to Charles Arm on the

South Arm of New Bay; the Glascock account indicates that in 1819 an “Indian path” led along this route. Moreover, Charles Brook itself potentially served the Beothuk as a clandestine travel route from the mouth of Charles Brook south to Northern Arm and the Exploits River. These results suggest that Charles Arm and South Arm New Bay, as well as the upper reaches of Charles Brook itself, have high potential for Beothuk and precontact archaeological sites. Further development in these locations should be carefully monitored.

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# Strong Tickle West Prospect and Nut Cove Quarry

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Independent Researchers



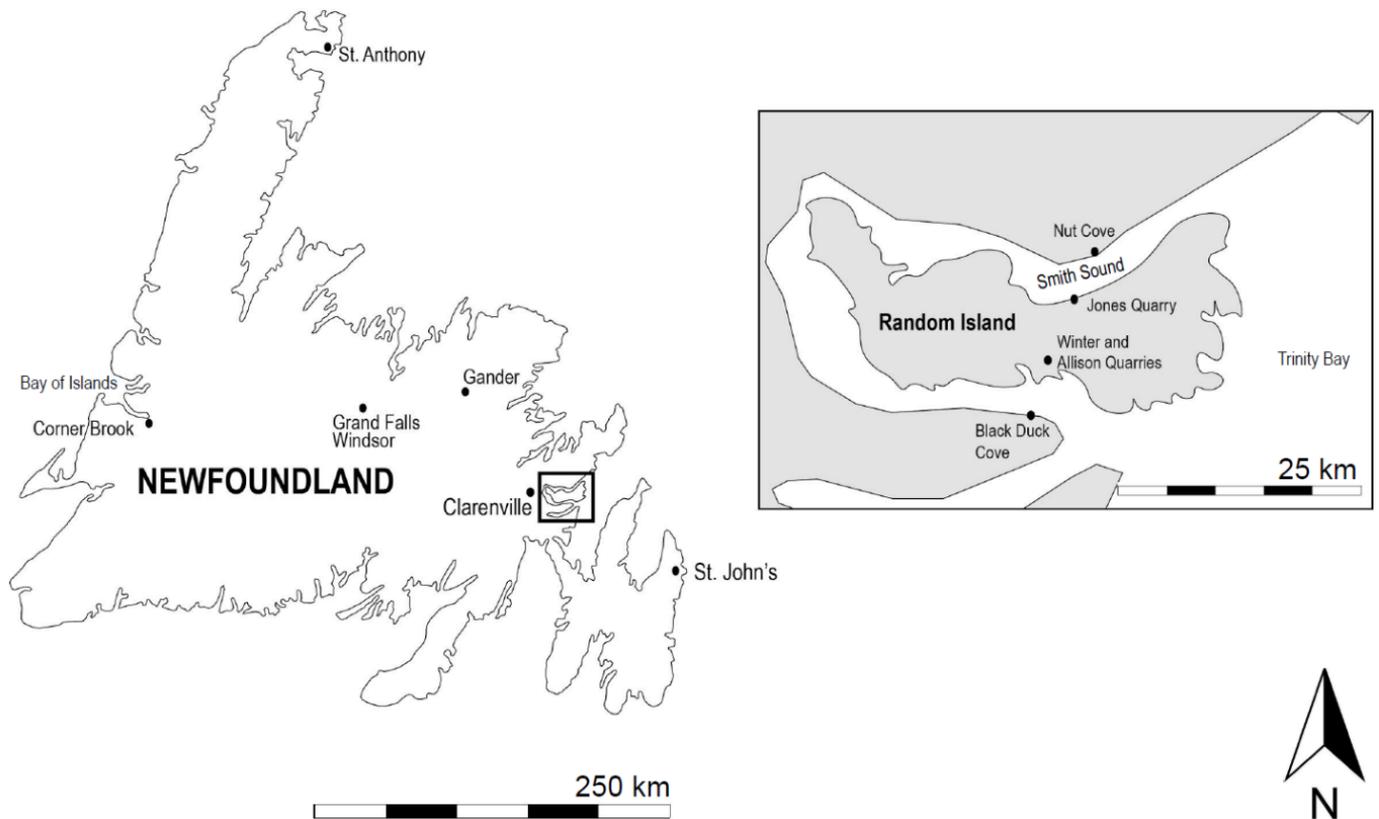
Figure 1: Alexa Spiwak stands inside the adit of the Strong Tickle West Prospect site. Alternating bands of red and green slate can be seen on the walls. Photo by Johanna Cole.

This article outlines preliminary investigations of historic slate quarries in the area of Random Island, undertaken in spring of 2019. This information has also been included in a forthcoming special volume of *Northeast Historical Archaeology*.

## A Brief History of Trinity Bay Quarrying

At the beginning of the 1850s three brothers, William, George and Jubal Carberry, began quarrying slate from a deposit on the north side of Smith Sound

in Trinity Bay (Martin 1983:83; Figure. 2). Though their operation was small in scale — reporting only 55,000 slates quarried in 1857, with a modern value of roughly \$34,000 — the slate was reported to be of excellent quality and was widely used by the builders of St. John's (Jukes 1842:70; Martin 1983:83; Shea 1857). The story goes that in the late 1850s a Welshman named John Currie happened upon the installation of the Carberrys' slates on a walk through St. John's (Williams 2017:98). Impressed by their quality,



**Figure 2: A map of the historic slate quarries of Trinity Bay in reference to the rest of Newfoundland. Note how the quarries follow the slate vein which runs from northeast to southwest across the island. Map by Johanna Cole.**

he enquired about their origin and decided to purchase a parcel of land adjacent to the Carberry quarry in 1860 (Martin 1983:83). John’s two brothers, David and Pearce, moved to Newfoundland in 1867 to help manage their brother’s quarry. They built a large family home, known today as the Currie Premises, across the sound in Britannia on Random Island. The Currie Premises, now a private residence, was designated as a Registered Heritage Structure in 1997.

Interest in the area’s high-quality slate deposit was still understated at the time, but prospects were nevertheless being explored across Smith Sound on Random Island. During the 1860s a number of small workings were opened near Hickman’s Harbour by a gentleman named Charles Bryant, although little is known about its operation (Ryan et al. 2010:3). While the Welsh slate market peaked in the 1870s and then began its slow decline, the Curries successfully worked their holdings in Nut Cove for nearly four decades. James Howley, a geologist and surveyor, recalled in his writings from 1869 that the men at the quarry worked the stone with great skill, and that “long practice has enabled the men to judge at a

glance what is best to do with the crude material” (1997:58). The industrial focus of Random Island shifted towards lumbering in the final years of the 19<sup>th</sup> century, and the Curries’ focus shifted with it. In 1899 the Welsh brothers sold their holdings to A.J. Harvey for \$25,000, and shortly thereafter Harvey bought out the Carberrys, incorporated the Newfoundland Slate Company Ltd. and began quarrying from the Nut Cove complex at an industrial scale (Martin 1983:83).

It was around this time that Welsh quarrymen, desperate to escape the grim vice of economic instability and growing labour disputes, were drawn to Newfoundland after several newspaper clippings and public presentations touted Trinity Bay as the place where “the best roofing slate is found” (Carnarvon and Denbigh Herald, December 14<sup>th</sup>, 1900; Williams 2017:98). Harvey employed a Welsh quarry manager, a man named Richard Williams, who oversaw both the expansion and modernisation of the Nut Cove quarry. Harvey’s pay scale, allegedly much hated by native Newfoundlanders, also hints at a considerable proportion of Welsh em-

ployees: “\$1 a day for Newfoundland blockcutters, \$1.50 for Newfoundland slatemakers, \$1.75 for Newfoundland quarrymen - and \$2.50 for Welshmen working at any of these jobs” (Martin 1983:84).

Between 1899 and 1906 a steady trickle of Welsh quarrymen came to settle on Random Island, taking the ferry across the sound with their Newfoundland neighbours each morning to work in Harvey’s quarry. A Welsh missionary station and a corresponding chapel was built in Lance Cove, now known as Britannia, “owing to the number of Welsh settlers at the slate quarries recently opened in that district” (North Wales Express, July 6<sup>th</sup>, 1900). As is true with so many instances of immigration, with the physical presence of Welshmen in Trinity Bay came the continuation of Welsh culture. Of great importance to quarrymen was the preservation of their traditional language: “The rock, it is said, does not understand English; Welsh is the quarryman’s first language, and in the quarry communities the traditions of the chapel and the *eisteddfod* remain strong” (Gwyn 1999:45). The *eisteddfod* is a traditional gathering during which Welsh poetry and song is recited; small-scale versions of what is now a large annual festival took place each day in the mess-houses, or *cabans*, of Welsh quarries (Gwyn 2015:171–172). According to *The Chester Courant*, the cultural customs of the *caban* and *eisteddfod* were also carried across the Atlantic:

A steady climb up the rocks of about 500 feet brought the party to the “messhouse” where meals are provided, and where most of the men live from Monday to Saturday in excellent dormitories which have been provided, and from which magnificent views of sea and land are obtained. *About twenty-five Welshmen were found here, and a hearty Welsh welcome awaited the visitors. A number of the old Welsh hymns were sung, and a pleasant hour was spent.* Among the places represented were Llanberis, Carnarvon, Bedd-gelert, Bethesda, Nant-Clwyd, and Port Dinorwic.

[August 29<sup>th</sup>, 1900; emphasis added]

Despite any resentment born out of pay scale inequality, it would seem that the relationship between these new immigrants and their neighbours was amicable. Newspaper articles from the early years of the 20<sup>th</sup> century describe a prosperous integration

between the two groups, with Newfoundlanders often attending Welsh services to hear the quarrymen sing and recite poetry (Carnarvon and Denbigh Herald, March 28<sup>th</sup>, 1902)

Due to a drastic decline in the slate market and an economic recession in Europe, the Nut Cove Quarry was closed by the end of 1906. Many found work in the fishery and in the lumber industry, and a few may have also found work in the smaller quarries that operated in the area (see Figure. 2). One quarry was located south of Hickman’s Harbour across Northwest Arm, near Black Duck Cove, and was operated by a St. John’s merchant named Walter Grieve for less than five years (Martin 1983:84). Two more were located near the town of Hickman’s Harbour, one of which was opened by William Ellis and Sir James Winter in 1900 and supplied a small number of slates to St. John’s (Evans and Dickson 2004:44). A nearby set of small prospects worked by Charles Bryant in the 1860s were sold to a Yorkshire merchant named James Allison in 1906, who lent his namesake to the third and largest of the slate quarries on Random Island (Evans and Dickson 2004:44; Martin 1983:84). One after the other these small quarries also succumbed to financial difficulty, and the last shipment of slate left the island in 1910 (Martin 1983:84). Various modern-day attempts to revive the quarries (discussed below) have experienced mixed success, but all have ultimately failed due to high operating costs and low demand.

### **Strong Tickle West Prospect Site**

After happening upon a YouTube video from 2017 of a Random Island metal detectorist (RandomIslandNorm) visiting what he referred to as “a slate mine”, the authors attempted in the spring of 2019 to locate the site that is known by locals as “The Cave”. Using a combination of the video footage and directions from the ever-helpful inhabitants of Hickman’s Harbour, we found a small, heavily overgrown slate works south of an ATV trail that runs from Hickman’s Harbour, past Dean’s Cove Pond and down to the tidal pools of Strong Tickle. A worn footpath leads away from a small clearing, then marked with red blazes, over the brook and up to an exposed ridge of red-purple slate. The path is now marked with signage that discusses the history of the site, touting Charles Bryant as “Random Island’s First Slate Miner”. These signs suggest that Bryant may



**Figure 3: The mouth of the Strong Tickle West adit. Photo by Johanna Cole.**

have also been looking for gold, and this claim is not without merit: the slate deposit which runs through Trinity Bay is rich in quartz, a mineral which is sometimes accompanied by veins of gold.

The foot path leads directly to a wide, rectangular cut into the hillside, at the end of which is an adit (a horizontal mining tunnel; Figure 3) with discarded slate around its opening. The first several metres of the adit measure 2.1 metres high by 1.8 metres wide, but the height of the ceiling shortens considerably as it continues into the hillside. At its terminus the tunnel begins to slope upward, as if it was being opened into a vertical chamber, before abruptly ending at a wooden retaining wall approximately 60 metres from the opening. The use of the underground “pillar and chamber” technique, whereby chambers are mined out with pillars of material left for support in between, is common

in Welsh quarrying (Gwyn 2015:60). Most interestingly, the quality of the slate deteriorates as one proceeds into the adit, becoming increasingly friable. This deterioration in quality may explain why the preliminary chamber was never completed and the adit was shored up and abandoned.

Despite signs that the adit is visited frequently by locals and has undoubtedly been emptied of any artifacts, it still has an intact wooden rail system that roughly matches the 0.6 metres gauge tracks which were an industrial standard in Welsh quarries

at the time (Gwyn 2015:22, 133; see Figure 4). A lack of iron or evidence of iron corrosion, save for where the sleepers were attached to the rails, suggests the use of sledges rather than traditional minercarts on rails. The walls of the adit are lined with circular and

**Figure 4: The wooden rail system within the adit. Note the iron staining on either end of the sleeper, likely from nails or spikes, and the lack of iron corrosion elsewhere. Photo by Alexa Spiwak.**



linear indentations from the use of pneumatic drills or, more likely for the time and the isolated location, a *jympar* (a long, weighted iron bar with a chisel-shaped tip) to extract slate, once again mimicking common Welsh quarrying techniques.

A short walk to the east of the adit lay the remains of a three-walled unmortared slate stone structure. The structure has a footprint of roughly 4 metres wide by 5 metres long and is found in association with three adjacent “cuts”, measuring roughly 10 m<sup>2</sup> each, quarried into the ridge. The structure consists of three walls, approximately a metre thick, of dry-laid slate stone, with an opening, potentially a

make any conclusive statements as to the purpose of this structure. This area, too, shows evidence of modern disturbance in the form of trash and signs of logging activity.

Our original hypothesis was that this site was what remained of the Allison quarry, and we were partially correct. A clue as to its identity comes from a prospecting report submitted to the Geological Survey in 2012: a site titled “Strong Tickle West”, associated with the prospecting work of Charles Bryant in the 1860s, is described as a slate works with “three rooms up to 10 m square with an underlying adit approximately 60 m in length” (Ryan 2012:4). This

**Figure 5: Facing north. Alexa Spiwak stands within the remains of the stone structure. Photo by Johanna Cole.**



doorway, along the southern wall nearest the quarry face (Figure. 5). The structure is completely open on the opposite side, with the walls beginning to collapse into rubble towards the open end. Any evidence of a roof or roofing material has been buried under rubble and a significant amount of overgrowth, but the area surrounding the structure was littered with slate trimming waste. Three-walled trimming sheds, called *gwalianau*, are another common feature of Welsh quarries, but further archaeological investigation is required to

property, along with another site that is said to be closer to Strong Tickle (“Strong Tickle East”) were sold to Allison in 1906 (Evans and Dickson 2004:44; Martin 1983:84). These prospects are roughly 1.4 kilometres as the crow flies from the Allison and Winter Quarries on Lower Harbour Point. It is unclear if Strong Tickle West was used by Allison after its sale; given the quality of the slate and the size of the workings, we are doubtful.

#### **Hurley Slate Works/Nut Cove Quarry**

Our survey in the vicinity of Hickman’s Harbour was followed by an impromptu visit to the now-defunct Hurley Slate Works on the north side of Smith Sound. This site resulted from a brief revival of what was the Nut Cove Quarry by John Carrick and John Hurley Sr. in the late 1990s (Ryan 2012:6-7). A survey report by the late Gerald Penney (Gerald Penney Associates Limited 1987) outlined the dangers that road construction posed to the barracks or “messhouse” referenced in *The Chester Courant* article from August of 1900. The report mentions the presence of “bunkhouses, a cookhouse and animal barns” as well as several individual homes (Gerald Penney Associ-

scrap. Heavier machinery, such as the automatic tile trimming machines, are still in-situ. The scene is as if the workmen left one day expecting to return the next: a hard hat and a pair of gloves are still carefully placed on top of a trimming machine, and a large slab of slate lays on a saw table as if still waiting to be processed. Printed memorandums outlining the Hurleys’ financial woes can be found in an office adjacent to a small lunchroom. Massive piles of purple and green trimming waste spill downwards from the mill building into Smith Sound, and to the east lays the enormous quarry scar, comprised of multiple stepped galleries, which stretches down to the tidewater (Figure

**Figure 6: Facing east, with Smith Sound to the south. A panoramic image of the Nut Cove quarry, displaying the two types of Cambrian slate found in Trinity Bay: red/purple and green/blue. Photo by Alexa Spiwak.**



ates Limited 1987:4-5). He also reported that historic features nearest the water, such as the wharf, boiler and forge, were no longer in existence (Gerald Penney Associates Limited 1987:1). It is likely that these features have been destroyed by the elements or perhaps even earlier attempts to revive the quarry.

The way out to Hurley Slate Works is rough and unmaintained once you turn eastward from the road that runs north of Burgoyne’s Cove. Exposed to Smith Sound with little tree cover, the quarry and its associated modern structures are in considerable disrepair. After approximately ten years of operation, Hurley Slate Works closed in 2010 and the mill building has since been heavily vandalised and looted for

6).

We were unable to locate the remains of the historic barracks or the associated midden that Penney mentions due in part to the snow that still blanketed the area. Moreover, Penney’s report did not have any coordinates and only circled an approximate area on a hand-drawn map. The scale of industrial disturbance at Nut Cove makes it seem improbable that any structures have survived, especially when one superimposes Penney’s map on top of the satellite image of the quarry (Figure 7)

John Hurley Sr. and other quarry executives were, however, made aware of the site via the Department of Transport report which advised them to

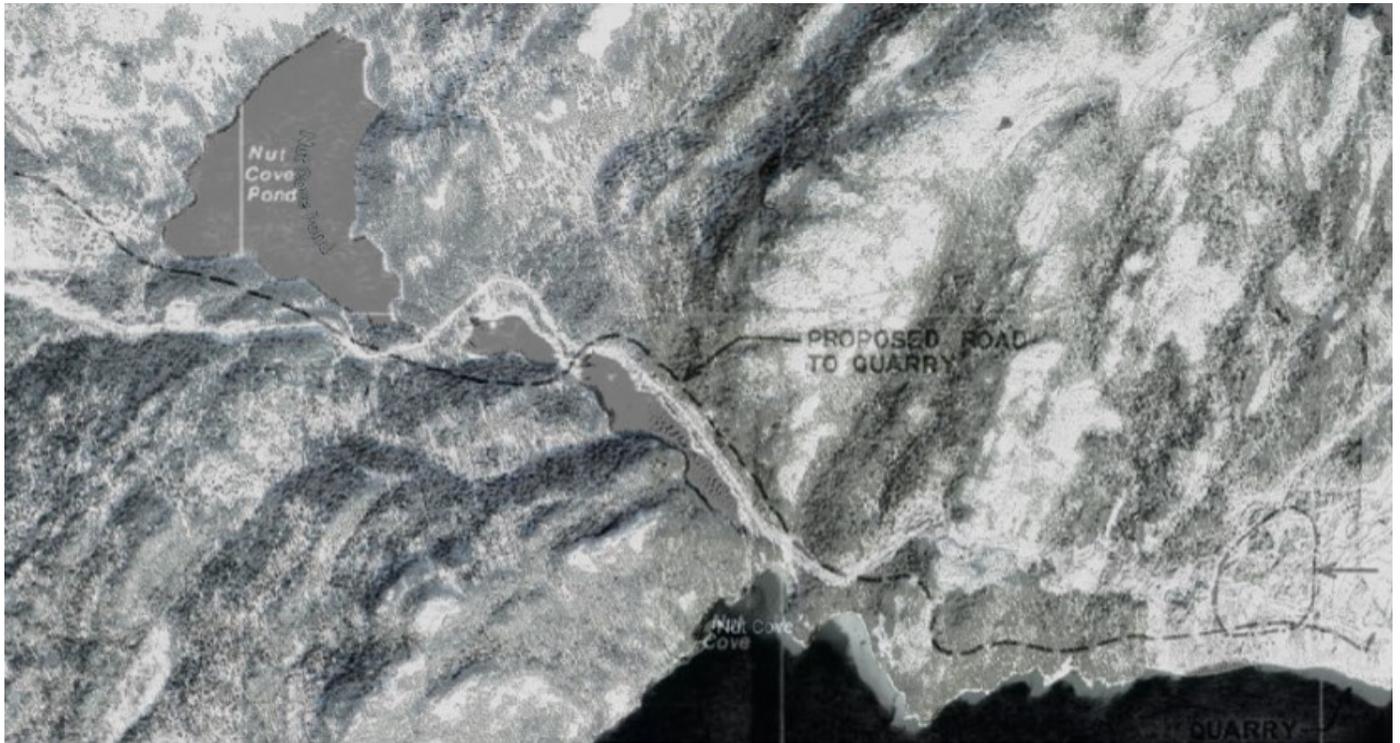


Figure 7: A hand-drawn map from Gerald Penney Associates Limited (1987) superimposed over Google Earth satellite imagery. Nut Cove Pond was used to align the two images due to shifting coastlines, but inconsistencies remain. The approximate area of the barracks is circled on the bottom right. The modern quarry is directly adjacent to this area on the right.

change the course of the proposed road in order to safeguard the archaeology (Gerald Penney Associates Limited 1987:5). Sadly, both John Hurley Sr. and Gerald Penney have since passed away, and as of the writing of this article we are still waiting on a reply from John Hurley Jr. regarding the status of the site. No follow-up reports have been received by the Provincial Archaeology Office since the submission of Penney's report and the status of the site is unknown. We remain optimistic that some material traces have endured and wish to return to Hurley Slate Works for a more thorough investigation. We hope that we are not too late to document this unique and culturally important site.

#### **Future Work**

Locating and surveying the Nut Cove Quarry barracks is of highest priority, assuming the site has not been obliterated by the industrial activity of Hurley Slate Works. Whether these structures date back to the Currie occupation of the site or were constructed as part of Harvey's expansion of Nut Cove is unclear and requires archaeological investigation. The uniqueness of this site warrants full investigation and protection. Pandemic allowing, the authors have plans to revisit Hurley Slate Works in the summer of 2021.

Second in the order of priority are the Bryant prospects near Hickman's Harbour on Random Island. The Strong Tickle West Prospect has, as of December 2020, been registered as an archaeological site with the Provincial Archaeology Office to afford it some modicum of protection. The authors have concerns regarding the safety of the site, both in terms of human visitors (the risk of collapse or injury in overhead environments cannot be overstated) as well as further damage to the archaeology. These concerns have grown since the revelation that signage has been posted to guide visitors to the site. Excavation of the stone structure would provide further clues as to its construction and purpose before more information is lost or destroyed. As of the writing of this article, the second of Bryant's prospects located further to the east ("Strong Tickle East") has not been located.

Time and resources allowing, surveys of the Jones, Allison/Winter and Black Duck Cove sites would also serve to shed further light on the understudied Trinity Bay slate industry.

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# Gerald Penney Associates

## 2020 Archaeological Activities

Blair Temple & Robert Cuff  
Gerald Penney Associates

2020 proved a difficult year for GPA (Gerald Penney Associates) with the passing of Gerald Penney on the 14 of May, after a lengthy and courageous battle with cancer. He was 69. During his career, Gerry had conducted archaeology throughout the entire Province, contributing tremendously to the archaeological record of Newfoundland and Labrador. He will be greatly missed by all.

### Water Street Infrastructure Improvement Project (Phase 3) 20.03

From April to June 2020, GPA conducted archaeological monitoring of Phase 3 of the Water Street Infrastructure Improvement (WSII) project, a large-scale water and sanitary sewer improvement and storm sewer replacement project at Water Street, St. John's. A multi-year construction excavation, the WSII involves the installation of a new storm sewer system and some sanitary piping, replacement and augmentation of manholes, and the replacement and/or lining of sections of water main. Phase 3 ran from Ayres Cove to Clifts/Bairds Cove, a central area of the St. John's waterfront, one of the first areas to be settled and with significant site advantage for trans-Atlantic trade in fisheries and supplies. St. John's became a growing centre of North Atlantic commerce c. 1780-1815 during the American, French Revolutionary and Napoleonic wars.

During the 19th century, the project area was destroyed by fire and rebuilt at least three times (1817, 1846 and 1892). These fires and rebuilding episodes resulted in Water Street changing course, widening, and its surface being raised in relation to sea level. Water Street in 2020 is a completely man-made landscape: in places, its pavement resting on nearly 3 m of redeposits, its north side being cut into a hill, and its south side built on made ground.

In 2020 five new archaeological sites were recorded (CjAe-178 – 182), and two previously-recorded sites (CjAe-63 and 176) further documented:

- CjAe-63 (Ayres Cove) – Located at Ayres Cove; recorded by GPA in 2006. Site contains complex stratigraphic evidence of early fisheries usage, and a large, functioning stone sewer.
- CjAe-176 (Water Street 17) – First recorded by GPA in 2019, the site is located on Water Street immediately west of the intersection with Ayres Cove and McBrides Hill. Finds were limited to traces of a cobble gutter and a scant late 18<sup>th</sup> century deposit.
- CjAe-178 (Water Street 18) – Located on Water Street at the base of McMurdos Lane, and extending for a distance east and west. Extensive evidence of post-1817 fire road work and post-fire secondary deposition associate with road improvement.
- CjAe-179 (Water Street 19) – Located on Water Street at the intersection with Ayres Cove and McBrides Hill. Finds included those from 18<sup>th</sup> and early 19<sup>th</sup> century fisheries-related occupation (artifactual and features), evidence of post-1817 fire infill and roadwork, and 19<sup>th</sup> century sanitation and drainage features.
- CjAe-180 (McBrides Hill) – Located at the base of McBrides Hill. Finds included early 19<sup>th</sup> century features, early- to mid-19<sup>th</sup> century road fill (a mix of post-1817 and post-1846) and 19<sup>th</sup> century drainage features (Figure 1).
- CjAe-181 (Water Street 20) – Located on Water Street, east of the Ayres Cove/McBrides Hill intersection. Finds included 1846 fire structural remains and deposits, and early 19<sup>th</sup> century (probable 1817 fire) structural and stratigraphic evidence.
- CjAe-182 (Water Street 21) – Located on Water Street, west of the Clifts/Bairds Cove intersection. Finds were limited but include a late 19<sup>th</sup> century stone water main chamber or manhole, and late 19<sup>th</sup> century structural remains.

Fire-related evidence was found at all sites, ranging from artifact-laden deposits, to features aban-

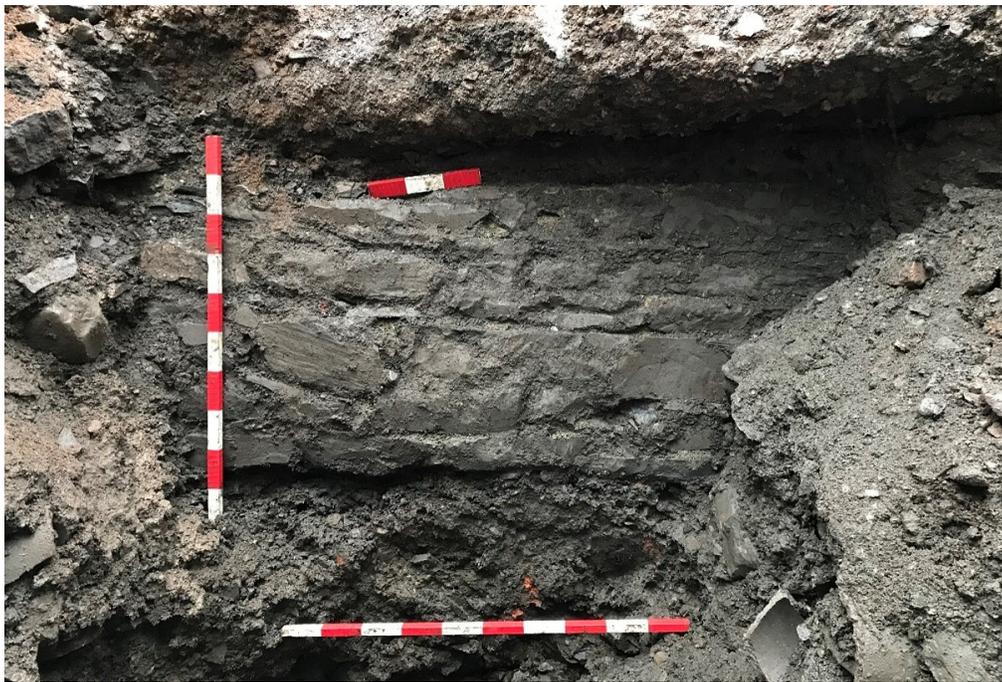


Figure 1: Early 19<sup>th</sup> century mortared-stone foundation, bottom of McMurdo's Hill (CjAe-180).

done as part of post-fire road alterations. The central (McMurdos Lane) area of Phase 3 was identified by GPA as a priority area through desk-based assessment in 2016 based partially on its identification with a 17th century settlement area known as “Hortons Plantation.” However, sparse 17th and 18th century early settlement and fisheries-related material was encountered in 2020. The largest assemblage of artifacts and features encountered during Phase 3 excavations were at the new site either side of McMurdos Lane, CjAe-178 (Water Street 18). CjAe-179 (Water Street 19), in the intersection of Ayres Cove and McBrides Hill, was also a large site in terms of the archaeological data. With both sites, most artifacts relate to St. John's greatest growth spurt. War-related fisheries and settlement expansion is distinguished in the archaeological record by evidence of the Great Fire of 1817 and the widening and straightening of Water Street (Figure 2).

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Labrador Pioneer Trail Assessment 20.12

In July 2020, GPA conducted a historic resources assessment of c. 45 km of an existing trail system (known as the Labrador Pioneer Footpath, or LPF), extending from L'Anse au Cotard to Pinware in southern Labrador. Approximately 22 km of a pro-

posed c. 25 km extension from East St. Modeste to Red Bay was also assessed.

About 50 archaeological sites are located adjacent to/within 25 m of the LPF. Pedestrian survey of the existing portion did not identify any serious disturbance to recorded archaeological sites other than minor disturbances which can be ascribed to pedestrian traffic along the trail. Most artifacts and features observed on the surface in 2020 were within 15-20 m of the LPF, and coincide roughly with locations of previously-recorded sites: EiBg-141, EiBg-147, EiBf-51, EiBf-52, EiBf-43, EiBe-77 and

EjBe-07.

Five new sites were recorded, all were pre-contact: EiBf-60, EiBf-61 and EiBf-62 (at L'Anse au Diable); EiBe-09 (at Schooner Cove); and EjBe-91 (at Capstan Island). One known site along the Capstan Island section was eventually located based on description but was found to be over 800 m distant from its recorded coordinates (EjBe-41) (Figure 3).

ATV usage adjacent to, and in some cases part of/through, the LPF is extensive and broadening over time. In some high traffic locations ATV usage

Figure 2: Painted pearlware saucer, post-1817 road improvement redeposits, CjAe-178.



has been destructive both to LPF and the broader landscape.

A foot survey of c. 22 km of the proposed c. 25 km LPF extension from East St. Modeste to Red Bay recorded six new archaeological sites – EkBc-69, EkBc-70, EkBd-02, and EjBd-06 are cobble pit features; EjBd-07 and EjBd-05 are the abandoned community of Semadit, and nearby vegetable gardens, respectively. Additional finds were identified at existing pre-contact site EkBc-43. All new and previously-recorded sites near the LPF extension are at a sufficient distance to be in no danger from pedestrian traffic (Figure 4).

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**331 Water Street Commercial Development (CjAe-08) 20.01**

Between April and October 2020 GPA monitored construction excavations for the development of a commercial office building at 331 Water Street, St. John's, adjacent to the Murray Premises National Historic Site (constructed after the Great Fire of 1846).

Within the proposed development's footprint was registered archaeological site CjAe-08, which included components dating c. 1665 - c. 1695, first recorded by Memorial University archaeologist Peter Pope in 1995 and further excavated 1997-2000 through a series of MUN field schools (Pope 2004).

The oldest components of CjAe-08 were posited by Pope to be part of a 17<sup>th</sup> century cod fishing room, Thomas Oxford's property as mapped in 1675. Since 2005 documentary research and proximate archaeological investigations, primarily by GPA, have developed a further understanding of St. John's pioneering settlers and the neighbourhoods that grew up around the coves on the north side of St. John's Harbour.

Findings from 2020 monitoring did not add a great deal to the knowledge of the 17<sup>th</sup> century components of CjAe-08, although some later 17<sup>th</sup>/early 18<sup>th</sup> century cultural material was recovered. Much more cultural material was found consistent with a merchant's dwelling/premises dating from approximately the late 18<sup>th</sup> century, and likely destroyed by fire on 19 July 1819. For both early and later material, finds were primarily from the west-central portion of the project area's northern half, a pre-development point of land, which includes the footprint of the former civic #s 329-327 (Figure 5).

Most finds were concentrated at specific locations within the remaining north end. Excavation of three pile caps in particular, produced stratified sequences, each

**Figure 3: Blowout at L'Anse Amour, with lithic scatter (EiBf-61).**



**Figure 4: Cemetery at the abandoned community of Semadit (EjBd-05).**





Figure 5: Late 17<sup>th</sup>/early 18<sup>th</sup> century Rhenish stoneware “bellarmine” bottle (GPA 2020).

consistent with one another: gradual occupation from the late 18<sup>th</sup> century, creating a complex stratigraphy, with a sudden change in the early 19<sup>th</sup> century. These occupation-related finds are spatially consistent with the point of land recorded. The lowest level of infill consistently contained early 19<sup>th</sup> century cultural material suggesting a changing event during the early 1800s, likely the fire of 1819.

In the eastern portion of the project area (#s 325-323) very little cultural material was found. Here bedrock was found to be very close to the surface, consistent with the recording of a ridge or point of land running out from the mainland, anchoring the extensive wharves built on either side. Concentrations of secure deposits are largely consistent with the location of this natural feature rather than the extant street-line of Water Street – as established after the Great Fire of 1846.

Through much of the project area, excavations exposed examples of the numerous wooden piles used to support and stabilize the infill (some more than 6 m in length). In several instances, linear patterns and groupings were recorded, remnants of former wharfing infrastructure (Figure 6).

Figure 6: Wooden wharf infrastructure, CjAe-08.



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# 2020 Report on The Rooms Provincial Museum Division's Archaeology and Indigenous Peoples Collections

Lori Temple  
The Rooms Provincial Museum Division



Figure 1: Rooms staff members Lori Temple and Wade Greeley cleaning an exhibit case in the First World War gallery on Level 2

This year was unlike any other with a major snowstorm in January and an ongoing global pandemic, which forced the closure of The Rooms for four months. During this time, work continued with staff working from home, entering catalogue and site information into our database and responding to requests from researchers and the public.

Once Covid-19 restrictions relaxed in June, a limited number of Rooms staff were allowed access to the galleries to clean artifacts and exhibit cases in preparation for reopening to the public.

Data work in our collections management software program, EMu, continued in 2020 as we updated catalogue records, verified artifact locations, inventoried collections, added photographs and be-

gan to conduct a larger project of importing previously existing databases submitted by archaeologists over the years. As in previous years, we continue to see how EMu has greatly improved our ability to manage our collections data.

The Rooms re-opened its galleries and public spaces on June 29<sup>th</sup>. However, as we are following Covid-19 protocols as laid out by the province, lab visits and access to the collections for researchers are being conducted on a case-by-case basis.

Mackenzie Woodfine spent a portion of her 14-week Young Canada Works internship with the Archaeology Unit digitizing over 47000 paper catalogue records into spreadsheets to prepare them for import into EMu.

The Rooms partnership with Indigenous communities is integral to creating exhibits that tell the diverse stories of the province. In recognition of changing attitudes and language and in our ongoing efforts to decolonize our institution the term “Archaeology and Ethnology” was changed to “Archaeology and Indigenous Peoples Collections”.

**Statistics for Archaeology & Indigenous Peoples Collection in 2020 include:**

- 72 requests received for information, loans, research visits, tours and photograph use.
- 2 researchers used the collections and lab space before Covid-19 forced us to close.
- Over 20 museums throughout the province displayed archaeology artifacts from our collections through our Community Loans program. As well, our artifacts are on loan to the Canadian Museum of History, the National Gallery of Canada, and several Parks Canada locations. Due to Covid-19 restrictions, a small number of museums did not

get their loan artifacts this year.

- Archaeology artifacts were transferred to The Rooms via the Provincial Archaeology Office through 12 submissions from archaeologists representing over 12025 artifacts and samples from 66 sites.
- 2 volunteers provided 11 hours of their time helping with various collection projects before Covid-19 forced the restriction of volunteers on site.

Anyone wishing to access our collections for research can contact Lori Temple, Collections Manager for the Archaeology & Indigenous Peoples Collections at (709) 757-8076 or by email at

[LoriTemple@therooms.ca](mailto:LoriTemple@therooms.ca)



# Surveys of Beothuk house-pits in 2020

James Williamson, Jeffrey Speller & Natasha Jones  
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## Introduction

During the fall of 2020, three surveys of Beothuk settlement sites were undertaken to gather data for the project: 'Beothuk settlement in the Exploits River Valley'. This included gathering data through Unmanned Aerial Vehicle photography for photogrammetry. Photogrammetry was used because it is highly accurate and cost-effective (Thomas, 2017).

Among the archaeological remains surveyed, Boom Island, Indian Point, Slaughter Island, South Exploits, and Two Mile Island were visited, and have since been analyzed.

These sites had all been previously investigated by Don Locke, an avocational archaeologist, in the 1960s (Locke, N.D.), and since then by several professional archaeologists (McLean, 2017, 2015a, 2015b, 2014, 2013, 2011; Schwarz, 2011, 1992; Thomson, 1982). Beothuk residences were typically described as conical structures, which had been set up on top of slightly subterranean features (Speck, 1922). The present-day remains of these houses are outlines of the exterior wall bases and depressions which would have constituted the house interior. As a result, they are now described as "house-pits", which are either oval, square, pentagonal, or hexagonal (Marshall, 1996). This study focuses on preparing micro-topographic analyses of the surface archaeology of these architectural remains.

## Objectives

The objectives of this study were to acquire and prepare data for an analysis of house-pit morphology, to shed a light on cultural practices, and hopefully discern the demographic change that occurred in the region when many Beothuk groups retreated to this location, as a result of European encroachment (Pastore, 1993). This study will involve a statistical analysis of the house-pits, necessitating detailed and accurate topographic surveys of the features. The surveys were performed through UAV photogrammetry, as this allowed the whole house-pit to be recorded (Williamson, 2020). This method has been used to measure erosion in the Exploits River Valley (ERV) (Williamson and Nicu, 2020) and to record other

house-pits (Erwin et al., 2017). The prior success of this model for both primary recording and erosion analysis suggests that it is a good fit for this study.

At this stage in the study, the visible remains of the interior architecture including the sleeping hollows, the hearths, and the benches have been tentatively determined. To properly demarcate the separate interior areas of the house-pits, both spatial statistics and heuristic interpretations of the features will be applied. As such, the visualizations shown in this review are among preliminary results of this method, analogous to descriptive statistics.

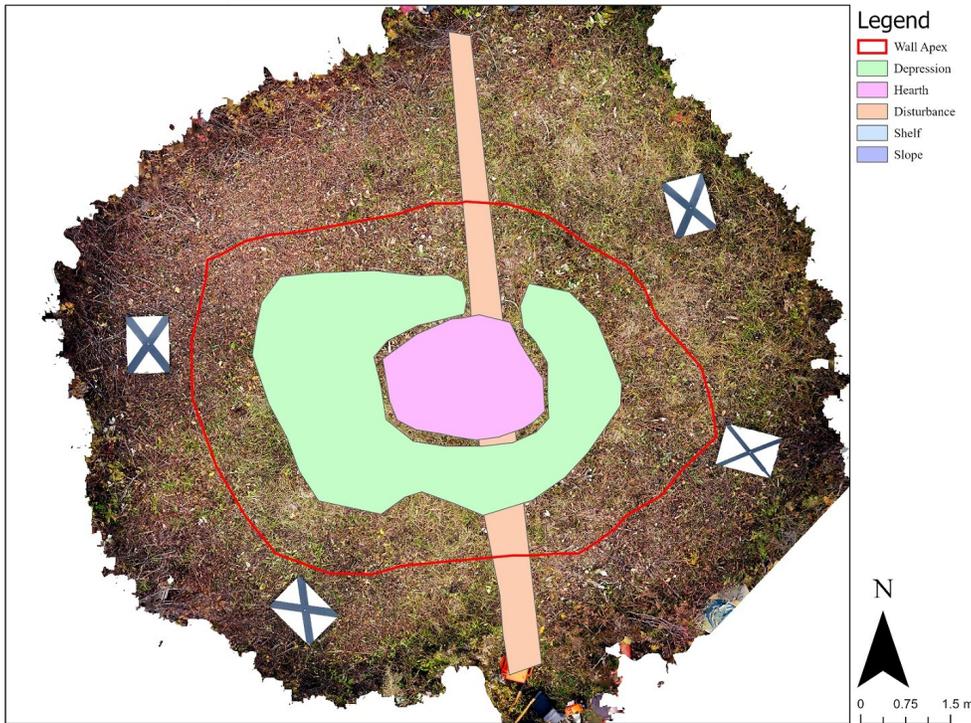
## Method

The house-pits were surveyed using a photogrammetric method, followed by an analysis of the Digital Elevation Models (DEM) using ArcGIS Pro. Internal features suggesting possible use spaces were outlined. The house-pits are being renamed using an alphabetical system, as it will help during the statistical analyses by making it impossible to perform many calculations by changing the data types for the names (Carlson, 2017). The preparation of these models follows a workflow that consists of: acquiring photos of the site, processing the 3D model, geo-referencing the model, preparing a DEM, and analyzing the DEM in a GIS.

## Photographic Acquisition and Photogrammetric Processing

The photographic acquisition method was performed using a DJI Mavic Mini drone flown in a manual grid, to obtain a set of photos taken from above the feature. This follows the suggested method for photogrammetry, with an added grid placed perpendicularly to the first (Agisoft LLC, 2019; Chatzifoti, 2015). The photographs were processed to produce 3D models using Agisoft Metashape. This software was chosen because it was the most effective (Jaud et al., 2016; Probst et al., 2018), and has been accepted as the industry standard (Magnani et al., 2020). Preparing the 3D Model from these photographs involved: aligning the photos by creating a sparse point cloud, generating a dense point cloud by interpolating data from the photos, and creating a triangular mesh to represent the 3D model. The models were processed using the

### Boom Island Beothuk House-pit



**Figure 1:** Shows the Boom Island house-pit, which is an oval feature with a beaver trail running through it. This graphic displays the orthophoto overlaid with the shape.

“high” setting at each step, from sparse cloud production to 3D model preparation. Of particular note, there was no preselection of the photos for sparse cloud production as this allowed for a higher level of accuracy.

#### Geo-referencing the models

The house-pits were geo-referenced using either RTK points taken with an Emlid rs+, or using the GPS points from each photo taken by the drone. The error of each point was measured by Agisoft (Agisoft LLC, 2019). Geo-referencing using RTK points has been shown to have an error of less than 3cm (Williamson et al., 2019), which is within the suggested 5cm acceptable Root Mean Square Error (a spatial measure of standard deviation) for archaeological surveys (Thomas, 2017).

The error for the models geo-referenced with the GPS points from the drone photos was within 50cm as it was impossible to take RTK points in some areas. However, as 3D models produced by photogrammetry are internally consistent, this was deemed acceptable (Hamilton and Stephenson, 2017). Known measurements were then taken within the model from equipment such as clipboards to compare with measurements of the actual equipment.

This step was carried out to validate the models. A notable inaccuracy in the overall elevation of the models will be corrected for later.

#### Digital Elevation Model production

A digital elevation model (DEM) was prepared using the processed 3D models, as these were made up of a solid mesh, this meant that there were no null values. This was chosen over the dense point cloud. The DEMs all had a resolution lower than a centimetre. The Orthophotos were also exported, as the colour imagery allows a quick visual inspection of the feature being analyzed. An orthophoto is a mosaic of the photographs acquired after the photos have been rectified to reflect the shape of the model.

#### Analysis in ArcGIS Pro

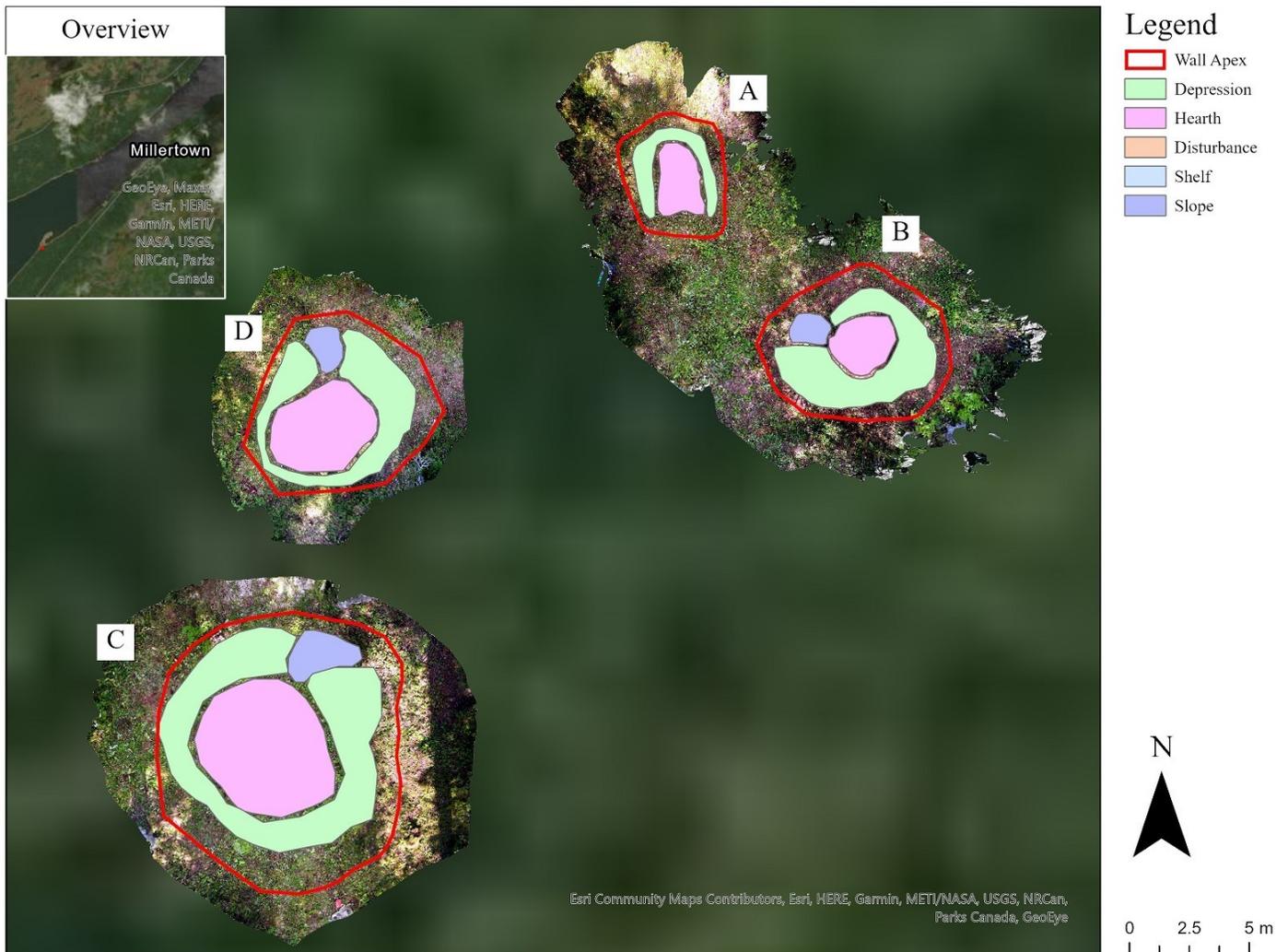
Terrain analysis was performed in ArcGIS Pro using the hillshade and aspect tools. A smoothing tool was also used; however, a single iteration did not present enough difference for the proper analysis. The GIS analyses of the DEMs were then digitized, and the internal features of the house-pits and the upper limit of the walls were drawn. As there is a strong interpretive component of this analysis, this will only be the first stage, as the house-pits must be statistically and heuristically compared later to prepare more concrete results.

The maps prepared for this review only show the orthophotos and the outlines of the interior features and the upper area of the walls. It was purposefully decided to not show the rasters used in the analysis to simplify the information provided and make the maps intelligible. Finally, a comparison of the features with those recorded in these areas was carried out, to help make sense of each site analyzed.

#### Sites: Boom Island (DfAw-03)

Boom Island (named after its role in the lumber industry) has evidence for both Beothuk and ancestral Beothuk (Little Passage) occupation (McLean, 2013).

## Indian Point House-Pits



**Figure 2:** Shows the Indian Point house-pits. These house-pits are oval or rounded and lack clear interior definition.

The site is within the Nimrod’s Pool cluster, between Aspen Island to the east, the South Exploits site to the south, and Beaver Island to the west. A single house-pit is located on the middle, south side, edge of the island. Aside from the lone house-pit on the site, there are underwater hearths within a small bay, which contained some stone tools (McLean, 2013).

The house-pit (seen in Figure 1) contains a beaver trail, which runs to the edge of the island. The house-pit is oval, around 30cm deep, and 5.9m across.

There is a clear sleeping hollow surrounding the hearth. I would suggest that the doorway was in the area where the beaver trail can be seen, as this area has a slight slope. However, as this area has been disturbed, it must be analyzed further. Bone pendants and pieces of pottery removed by Locke (McLean,

1990) suggest an early historic chronology for this feature; however, analysis of the artifactual remains may be necessary to confirm the chronology.

It is worth considering that before clear-cutting, this island was substantially different.

### Indian Point (DeBd-01)

This site is situated on the southeast shore of Red Indian Lake, where the day park is currently located, near Millertown. The first mention of the site in the anthropological literature is by Speck (1922) in his book on the Beothuk. Devereux (1970) investigated the site and excavated a hexagonal house-pit. Devereux’s (1970) excavation showed that the area had been inhabited by the Beothuk, the ancestral Beothuk, and the Maritime Archaic.

However, at some point between 1970 and 1982, the site was almost destroyed (Devereux, 1970;

## Red Indian Falls 2 Beothuk House-Pits



**Figure 3: Shows an Orthophoto of Red Indian Falls 2 site with the outer lines of the house-pit in red and the interior features marked.**

Thomson, 1982). This was similar to many different features in the region, which were often affected by clear-cutting or by the damming of the lake (Taylor, 1964).

The features are located in the woods near the B5 Locality, suggesting that they may be part of the site recorded by Devereux. House-pit A is a small horseshoe-shaped feature. There is a similar feature in the South Exploits cluster (D in Figure 5) and at Red Indian Falls 2 (C in Figure 3). It is 4m across at the widest point, which means that it is quite small compared to the norm. The other three house-pits are larger, and appear to be shallow and disturbed. As there is a lot of activity in this area, a section of trees was left in between it and the public area, to shield it from view. The second house-pit (Figure 2, B), which

slopes into the trees to the east is 5.4m at its widest. The third house-pit (C), which had previously been found during surveys in this area, is 7.8m across at its widest point. The final house-pit (D) is 5.1m across at its widest point.

### **Red Indian Falls 2 (DfBb-04)**

The location of the site is the top of a bluff, overlooking the ERV (Exploits River Valley) on the eastern side of the river. Red Indian Falls 2 is 1.2km north of Red Indian Falls 5, and 3.7km southwest of Red Indian Falls. There are four other clusters of Beothuk house-pits within a 5km radius of this location.

This site was first surveyed by avocational archaeologist Locke, who recorded the house-pits in his fieldwork journal (Locke, N.D.). The site was revisited by Thomson (1982), McLean (2011), and

## Slaughter Island Beothuk House-Pit



Figure 4: Shows the house-pit on Slaughter Island, which is a heptagonal feature with a sloping area towards the interior and clearly defined interior components.

Schwarz (2011). Before the visit by Schwarz (2011) when it was cleared of trees, the house-pits were obscured by vegetation. Red Indian Falls 2 was described as including four house-pits, of which, two were square and two were pentagonal (McLean, 2011). However, the DEM also shows a fifth house-pit (D) which was not previously recorded as such by professional archaeologists. Schwarz (2011) recorded the house-pit as a pair of storage pits.

House-pits A and E are both pentagonal house-pits and have clear edges. House-pit B is rectangular and has clear delineations between internal components. House-pit E is a small square feature, which is either a storage pit or a small house-pit. House-pit A is the largest and is 7.5m across at the apex of the walls while house-pit B is 7.2m across at the apex. The other two house-pits are 5.5m (B) and 3.7m (C) across at their apexes. All of the features have slightly raised centres. In house-pits B and C, sleeping hollows have been suggested, as there is a depressed area around the central hearth in each. These depressions or sleeping hollows surround the hearth. House-pit B has benches or raised areas

alongside the hearths. There are no benches in house-pit A and this feature has very little interior differentiation, although a hollow on the east side of the hearth is noticeable. House-pit C is a small, square feature, with a ramp towards the central mound suggesting an entrance.

Thomson (1982) suggested that the house-pits were located at the top of a bluff to manage a caribou fence. This is unlikely to be true, because the caribou migrate from the north to the south, crossing the river in the fall (Soulliere, 2016). Ethnoarchaeological evidence for boreal Indigenous groups suggests that they hunted caribou before their winter migration, as the caribou travel through chokepoints, either

man-made (such as deer fences) or natural (such as rivers) (Kelly, 1995; Spiess, 1979). As historical records indicate (Howley, 1915; Spiess, 1979, p. 124), caribou fences were normally present on the edge of the river, where they were used to control the movement of groups of caribou as they crossed the river.

I would suggest that the reason for this group of house-pits being here is because the site's elevated position was defensible, and would have allowed the inhabitants to monitor events in the nearby area.

### Slaughter Island (DfBa-05)

The island is slightly downstream of Badger. Slaughter Island was seen by Cartwright, who listed it with that name (McLean, 2017). Later surveys of the site were carried out by Locke (N.D.) and Mclean (2017), while Schwarz (1992) was unable to visit the site with his team.

The site includes one clear house-pit, a heptagonal feature, and a possible square feature. The square feature was not recorded because it did not appear convincing. There was also a possible hunting blind on the northern side of the island, and a pair of storage pits on the western end (McLean, 2017).

## South Exploits Beothuk House-Pits



Figure 5: Shows the South Exploits site, focusing on the features present here. These house-pits were all much less formal in appearance than other sites in the area.

The house-pit is 4.2m across at its widest point, and about 40cm deep. There were also two storage pits on the island. Another house-pit was recorded on this site (McLean, 2017), however, it was not convincing as an archaeological feature.

The house-pit on the site is very clear, and the interior components can be seen from the DEM. These can be seen outlined on the map. The sloping areas on the map indicate a possible bench around the hearth, and the slope running through the corner of the feature seems to be an entrance.

The disturbances seen in Figure 4 are both tree stumps and their root systems. These were in the depression around the central mound or hearth, which may have been in the sleeping hollow.

The outer wall appears to be heptagonal, which is quite interesting, as this is the only recorded one of this shape.

### South Exploits (DfAw-07)

This site is located on the south bank of the Exploits River, almost immediately to the south of Boom Island, and between Beaver Island and Aspen Island. The site is to the east of a forestry road.

The South Exploits site was first recorded by Locke (N.D.) in 1975 (McLean, 2013) who removed several artifacts from these house-pits including several Type 3 Beothuk spearheads (McLean, 2003). Ancestral Beothuk points (from the Beaches Complex) were also found at this site, which suggests that the region had been occupied in generations before the Beothuk.

Locke (N.D.) found 9 house-pits at this site. McLean (2013) surveyed several of the house-pits identified by Locke (N.D.) in his field notes. Test pitting in the house-pits recovered no artifacts, suggesting that these features were scoured of artifacts by taphonomic processes and avocational excavations.

The site has also been heavily modified by a road reaching the river, which likely damaged the archaeology. This has wiped out the area where Locke (ND) recorded house-pits 10 and 9. There was also a recent path cut along the edge of the river, which suggests that some features may have been entirely removed.

House-pit A is 6.2m wide. House-pit B is 7.15m wide. House-pit C is around 5.4m wide. House-pit D is 5.1m wide. The area beyond the small cove was not surveyed as there were no known house-pits, and there were too many tree-falls to make sense of the topography of the ground. Some of these treefalls were recent. While there were other house-pits listed here, and possible features in this area, they did not have the topographic signatures associated with house-pits.

### **Two Mile Island (DfBa-02 and DfBa-03)**

Two Mile Island (locally known as Three Mile Island) is located two miles upstream of Badger and has several archaeological features clustered on the southeast side and in the gully running across the island. These features include house-pits, rock features and storage pits, all of which have been repeatedly disturbed by avocational archaeologists and pot-hunters.

The island was visited by McLean (2015b, 2014), Thomson (1982) and Locke (N.D.). Locke's (N.D.) description and map of house-pits are inaccurate and difficult to interpret as it does not include identifiable landmarks for clear geo-referencing or a scale. Thomson (1982) and McLean (2011) both numbered the features differently, which makes the interpretation of their maps of the island difficult.

House-Pit A (from DfBa-03) was first surveyed in 2015 by McLean (2015b). It seems to have been heavily disturbed. The house-pit is oval, and 8m across at its widest point, which means that it is quite a large residential feature. The other three clearly defined house-pits here are included within the Borden number DfBa-02. House-pit A is also located within the gully across the middle of the island, which was suggested by Locke as a caribou fence (Locke, N.D.).

This is unlikely, given that in other cases where caribou fences were historically attested, they seem to have avoided buildings (Marshall, 1977).

House-Pit B, is 7.4m, and is also oval, but is much better defined than House-Pit A. It has a possible entrance, sloping from the wall to the interior. The house-pit also has a well-defined sleeping hollow and a hearth.

House-Pit C is 6.3m across, and also oval. This house-pit has an uprooted tree in the centre, but the interior features aside from this are quite well-defined.

House-pit D is 5.5m across and appears to be almost circular when viewed on-site. However, the house-pit has straight sides which can be seen from the DEM, suggesting a polygonal shape, but at this point, I would be unwilling to assign it to the typology, as a statistical comparison may be necessary to find similarities.

The house-pit also has a possible berm on the southeast side, which has been described on the map as a slope. This would be unique among the features that have been surveyed, although, given its size, I would suggest that it corresponds to a more clearly preserved view of the internal bench. There were several storage-pits in the area around it, including two built into the walls.

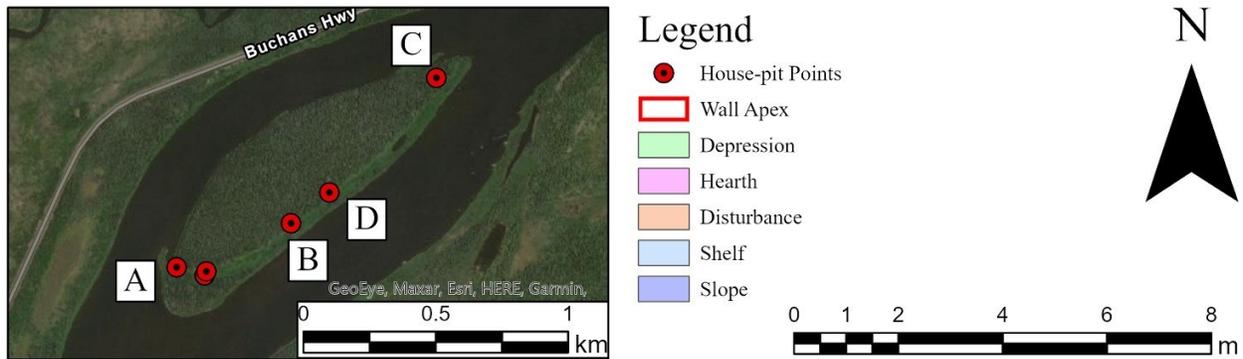
For comparison, a much smaller berm was found on the Sabbath Point site, which appeared to hold either a cache or a metalworking area (McLean, 2018).

### **Conclusion**

Archaeological surveys in the Exploits River Valley by archaeologists over the past 60 years have shown that Beothuk house-pits include a great deal of social information about their former inhabitants (Devereux, 1965; McLean, 2015c; Schwarz, 2011; Thomson, 1982). Before this study, the features discussed here had been surveyed, but the low resolution of these surveys meant that the features have been difficult to analyze and interpret, where possible. Photogrammetric surveys allow the interior components of the features to be visualized and enable larger features (including house-pits) to be interpreted.

The walls of the features were analyzed to examine their shape, while the interior circular depression could be seen surrounding the interior

# House-Pits Surveyed on Two Mile Island



Location of Features



A) Two Mile Island House-Pit 1



B) Two Mile Island House-Pit 4



C) Two Mile Island House-Pit 5



D) Two Mile Island House-Pit 6

**Figure 6: Shows the Two Mile Island house-pits. These house-pits are also quite badly defined except for House-Pit 6 (C) which possesses clear interior features.**

mound or hearth, and it seems that these reflect the sleeping hollows and hearths discussed in the historical materials (Marshall, 1996). The entrance is also possible to visualize and can be seen in Red Indian Falls 2. Disturbances can be seen in most house-pits, which obscure the interior features. Boom Island is the clearest example of this issue, as a beaver trail runs from one end of the feature to the other.

However, these disturbances are most often the result of clear-cutting and young forest growth. While the interior of each feature seems to have vegetation growing from the hearth, this does not often include full-grown trees. Photogrammetric survey has enabled a greater understanding of the nature of various disturbances as well as yielding important results

on the morphology of house-pits, something which was not possible with traditional survey methods, and more insights are sure to emerge as research continues.

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# End of the Beginning: Preliminary Analysis of the Faunal Assemblage from the Sabbath Point Site (DeBd-8)

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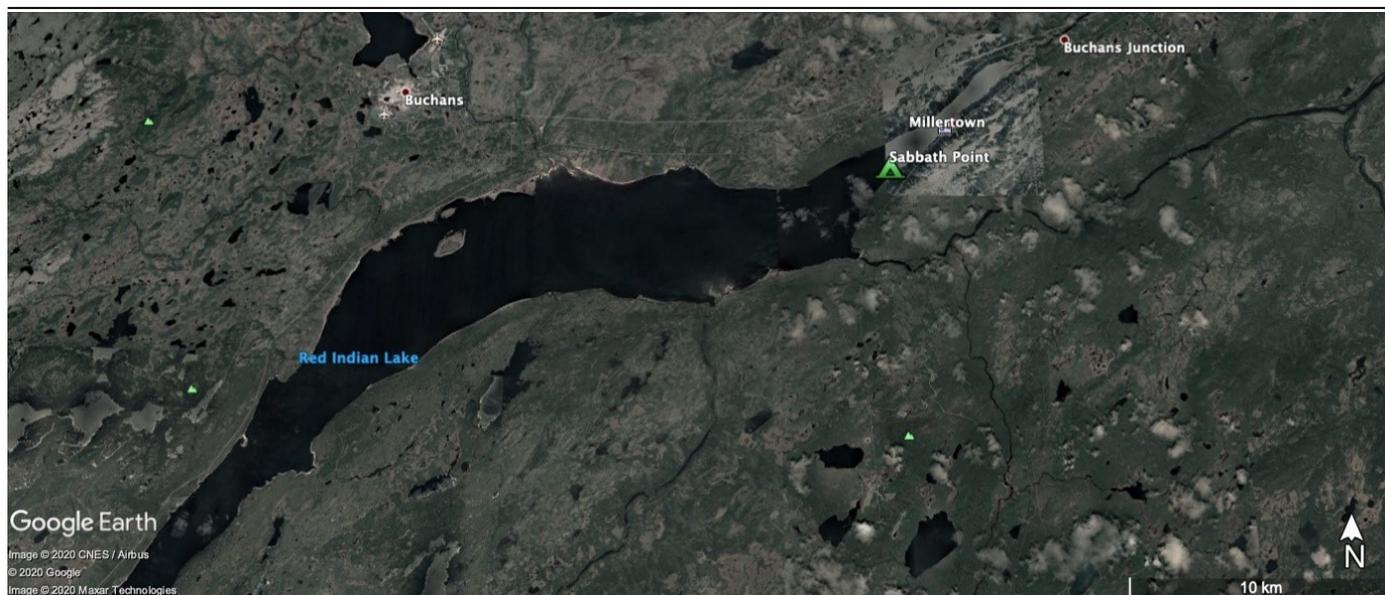


Figure 1: Sabbath Point location.

## Introduction

The Sabbath Point site (DeBd-08) consists of a single, very large, hexagonal-shaped housepit thought to date to the turn of the 19<sup>th</sup> century. The housepit is extraordinary in many respects, not the least of which is that it has escaped destruction from shoreline erosion, development, and looters. The housepit sits on the eastern end of Red Indian Lake, just a few hundred meters from the Indian Point site (Devereux 1970) and about three kilometers up the shore from modern Millertown (Figure 1). This area was very important to the Beothuk, particularly during the 18<sup>th</sup> and early 19<sup>th</sup> centuries when the Beothuk were spending more time in the interior as a response to encroachment by European colonists that had restricted access to the coast (Holly 2008). Because of its historical significance and the risk of the housepit being lost to wave action from the lake waters undercutting its northeastern edge, the site has had various small-scale salvage excavations over the last few years.

The housepit was discovered by Don Pelley during a survey of the eastern shore of Red Indian Lake led by Laurie McLean in late 2016 (McLean 2017). The following year it was surveyed, photographed, and mapped with an Unmanned Aerial Vehicle by a team from the Provincial Archaeology Office (Erwin 2017; Erwin et al. 2018). A remarkable find from that survey was a well-preserved iron deer spear that was discovered outside of the housepit (Erwin and Hull 2018). In the summer of 2018 Schwarz and Hutchings of Black Spruce Heritage Services visited the site and excavated 10m<sup>2</sup> of the housepit, where they recovered abundant faunal remains, some late 18<sup>th</sup>-early 19<sup>th</sup> century ceramics, and an extraordinary iron harpoon head (Figure 2) on a platform feature adjacent to the northern wall, nearest the lake shore (Schwarz 2018; Schwarz and Hutchings 2019). Later that fall, Laurie McLean and James Williamson excavated another 10m<sup>2</sup> at the site, including a portion of one of the housepit's walls and some of the exterior. They recovered faunal material,



**Figure 2: Iron Harpoon Head found by Schwarz and Hutchings (2018). Photo by Chris Wolff, access courtesy of The Rooms Provincial Museum.**

significant amounts of fire-cracked rock, and some iron (McLean 2017, 2018a, 2018b).

Because of ongoing erosion that threatened the housepit, the PAO invited us to continue excavations at the site in 2019. We were eager to learn more about the Beothuk occupation of this site and were encouraged by previous reports of iron, and especially faunal material, and what it might be able to tell us about the Beothuk economy at this critical point in their history. We were not disappointed: our excavations revealed some iron artifacts, fire cracked rock, ash deposits, and substantial amounts of faunal material (Holly et al. 2020). Here we focus on our initial analysis of the faunal material, with the caveat that there is much more left to do and that interpretations are likely to change.

### Methods

The housepit was excavated in 50 x 50 cm quadrants within 1 x 1 m units following natural and cultural strata. We recorded the three-dimensional provenience of all formal artifacts and some large intact faunal remains using a total station. All other faunal remains were collected in 50 x 50 cm quadrants by level. In total 10 m<sup>2</sup> was excavated, contiguous to the 10

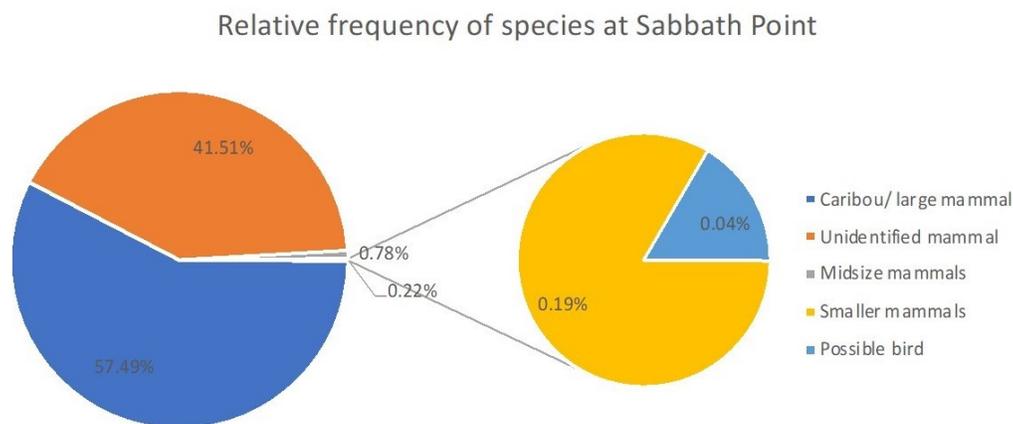
m<sup>2</sup> excavated by Schwarz and Hutchings in 2018. We also left an unexcavated 50 cm baulk that was established by Schwarz and Hutchings (2018). Moreover, we followed their example and collected 10 x 10 cm bulk soil samples in the southwest corner of each 1 x 1 m unit to be finely screened in the laboratory in order to recover microartifacts and microfaunal remains, as well as for soil analyses. These will also be floated to recover botanical and other possible environmental proxy data. For more detailed field methodology see our previous report (Holly et al. 2020).

Iron artifacts recovered in 2019 were put into conservation. Lithic (mostly fire-cracked rock) and faunal remains from our 2019 excavations and faunal material and flaked stone recovered by McLean (2018a, 2018b) and Schwarz and Hutchings (2018) were moved to Wolff's laboratory at the University at Albany. The faunal collections from 2019 were dry-brushed and misted with an alcohol-water solution to prevent mold development and rebagged into dry brown paper sacks. Dr. Jessica Watson began analyses of the animal bone, recording specimen frequency by quadrant and level, and identifying specimens by element and taxon. She also documented their size, age range, and taphonomy. These data were all entered into a database for cataloging and further analyses.

### Results

#### Stratigraphy

We opened 10 1 x 1 m units in the central area of the house pit. These were contiguous to the units excavated by Schwarz and Hutchings in 2018 (Schwarz and Hutchings 2018). In general, we identified the same stratigraphic layers that they recognized and tried to maintain consistency in the terminology they used. This included a surface layer, and two buried cultural strata: Level 1 and 2. We noticed, however, some units had slight changes in the soil in the lower half of Level 1 that we deemed Level 1. We referred to the upper level as 1a in subsequent excavation units where this change was noted. The surface was a matrix of leaf and needle litter and forest duff, ranging from 2-8 cm thick across our excavation units depending on the topography. It was generally much thinner on the mound features (2-3 cm) near the center of the house pit, as also observed by McLean (2017, 2018a, 2018b) and Schwarz and Hutchings (2018).



**Figure 3: Relative frequency of species (NISP) at the Sabbath Point site (includes collections from 2018 and 2019) from all strata.**

Beneath the surface duff, Level 1 revealed a more compact, grey organic layer with significant small, rounded pebbles throughout. It was relatively thin (1-4 cm) and turned slightly lighter gray near the transition to what we identified as Level 1b in some units. Level 1b was a darker, organic-rich soil that was discontinuous and rich in faunal material. It is not clear what these depositional changes represent. Soil samples taken from the southwest corner from each of the units and each stratum may help us identify if they are related to cultural activity or the result of natural processes. These samples have yet to be analyzed. Our soil samples will also be compared to those collected by Schwarz and Hutchings (2018) to see if these depositional changes extended beyond our excavation area.

Level 2 is clearly distinguishable as an orange, pebbly/sandy matrix from the overlaying strata. All of the cultural material from this stratum was recovered close to the interface with Level 1/1b and is likely the result of human trampling and post-depositional processes. At this time, we believe that Level 2 was the original living surface when the house was first occupied.

### Artifacts and Features

Very few artifacts have been recovered from the Sabbath Point site. Prior to our excavation, archaeologists from the Provincial Archaeology Office, while surveying the area with a metal detector, recovered a deer spear about 6-8 meters outside the main house pit depression (Erwin and Hull 2018). Schwarz and Hutchings' excavation recovered faunal remains, three pale creamware rim sherds which likely date to

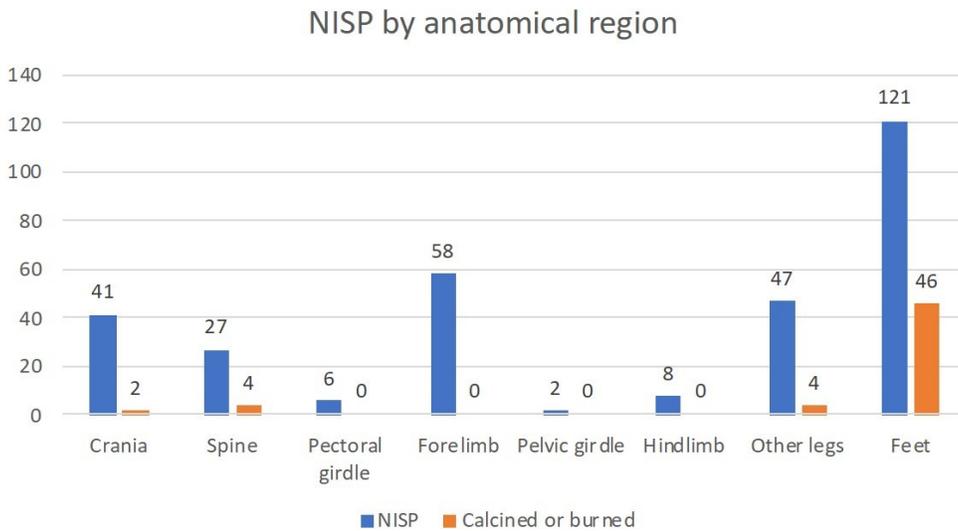
the late 18<sup>th</sup>-early 19<sup>th</sup> century, iron concretions, a possible whetstone, and an iron harpoon head on what appears to have been a platform near the northern wall of the housepit (Schwarz and Hutchings 2019). McLean's (2018a, 2018b) excavation yielded faunal remains, significant amounts of fire-cracked rock, a couple of pieces of iron, and some lithic material. Our 2019 excavations only recovered five artifacts: two

iron nails, an iron fragment that appears to have been a portion of a trap part, and two thin cylindrical iron fragments that we now suspect are straightened fishhooks. Initially, we thought that one of the thin fragments might be a broken projectile point, but X-ray analysis indicated the shape was the result of oxidation of the object and not cultural modification (Holly et al. 2020). All of the iron objects came from the same 1 x 1 unit (N61E45), and from an area at the edge of a platform, suggesting (not surprisingly) there is some internal differentiation of space and activity in the house pit.

Our excavations largely centered on what appears to be a central hearth/cooking mound feature. It consists of a thinly-layered mix of ash and calcined animal bone, and likely represents a series of cooking episodes. Bulk soil samples taken from the feature will be analyzed in the upcoming months.

### Faunal Remains

The faunal assemblage recovered from the 75 m<sup>2</sup> that have been excavated so far is in the early stages of analysis. To date, Watson has examined 2,698 faunal samples from all three excavations. There is likely at least twice that number recovered from the site to date. Of those samples, 1,551 (57.49%) have either been positively identified as caribou or unidentified large terrestrial mammal (Figure 3). The unidentified large specimens are likely caribou based on current analysis of assemblage and the site location. All anatomical regions of caribou have been identified (Figure 4), suggesting that the entire carcasses of the animals were brought to the site or perhaps that the



**Figure 4: NISP of caribou bone by anatomical region.**

housepit was erected on a former caribou kill site as Schwarz (2018:25) has suggested.

Bears were the only other large mammals available in the interior of Newfoundland prior to the introduction of moose at the end of the 19<sup>th</sup> century (Dodds 1983). Bears have been found in other Beothuk and ancestral Beothuk faunal assemblages but are uncommon (Holly 2019), and the specimens examined so far do not appear to be bear. Another 1,120 (41.51%) bone fragments have positively been unidentified as terrestrial mammal of unknown size, but their state of fragmentation does not allow for more specific identifications to be made at this time. Another 21 (0.78%) samples have been identified as medium-sized terrestrial mammals (e.g. beaver, canids, lynx), and 5 (0.19%) as smaller terrestrial mammals (e.g. marten, hare, muskrat, vole). Only a single bird bone has been identified so far, and genus and species are currently unknown. No marine fauna have been identified in the assemblage to date, which is not surprising given the site's distance (approximately 100 kilometers) from the coast.

Analysis is continuing, and a more thorough distribution of the remains will be published in the future. However, initial studies of our 2019 faunal assemblage (n=1391) suggests some variation across space and over time. The earliest stratum, Level 2, has the fewest number of faunal specimens (n=173, 12.4%). While not continuous across the areas, the overlying stratum, Level 1b, has the highest (n=966, 69.4%), and the uppermost buried stratum, Level 1,

has 240 specimens (17.3%). It remains to be determined if the stratigraphic distinction between level 1 and 1b is warranted, and thus what—if anything—might be gleaned from the apparent faunal changes between these sublevels. The relative paucity of faunal remains on and in the original housepit floor surface compared to the abundant remains that overlay it and features, however, does seem significant. It could suggest regular maintenance of the living floor, per-

haps to repair walls and create platform features (see Schwarz 2018: 49), or a short overall occupation.

Curiously, there are also taphonomic differences between stratigraphic levels in the housepit. There are significant differences between levels 1 (including level 1b) and 2 in terms of human and animal modification of faunal remains. In Level 2, there are 470 specimens that have been identified to anatomical region. Of these, 21 specimens (4.5%) are calcined or burned, and 11 (2.3%) contain cut marks. Level 1 has a significantly higher proportion of calcined fragments among the 1,551 elements that have been identified, with 470 (30.3%) showing some evidence of being burned to varying degrees. The difference in calcined or burned remains between the two levels, could lend support to Schwarz's (2018: 23-25) idea that the housepit was erected on a former caribou kill site. If this is what occurred, one might expect to find unburned/uncooked "kill" remains in the original floor matrix and especially in the walls, overlaid by the charred remains of faunal material that had been cooked by the occupants of the house.

Level 1 also has 21 specimens that have cut marks, although a slightly lower overall percentage (1.4%) of modified bone than in Level 2. Level 1 also has 11 specimens that have evidence of carnivore gnaw marks. The Beothuk are not thought to have had dogs (see Marshall 1996: 332-333), so it is likely that these were made by wolves or foxes (but see Marshall 1996: 20), but we will take a closer look at

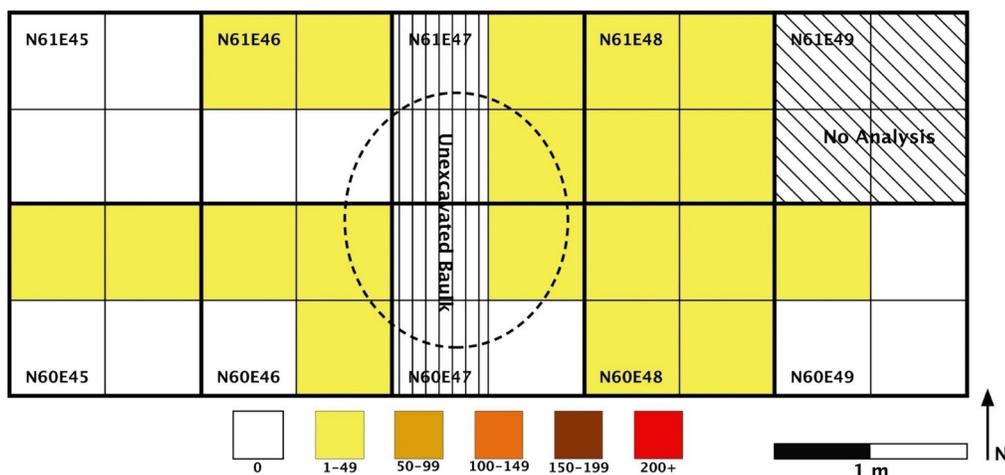


Figure 5: Level 2 NISP frequencies from 2019 excavation units. Dotted circle represents approximate position of central mound feature.

side of Red Indian Lake, the primary subsistence activity of the Beothuk who occupied the housepit here appears to have been the interception of caribou on their annual southward migration in the Fall (see Holly 2008: 180-1; Holly et al. 2018: 214-215). This is when caribou are the most productive, both in terms of their rich fat layers and thicker coats that they acquire as they ready themselves for winter (Spiess 1979). The presence of some

these marks to try and determine what animal was responsible for making them.

The majority of faunal remains were recovered in the center of the house and associated with the central hearth feature, although every unit yielded some animal bone. Within units, some 50 x 50 cm quadrants do not have any faunal remains, but this is likely to change as our analysis continues. Nevertheless, we do not expect the relative frequencies to change much based on our observations in the field and considering the amount we have left to process in the laboratory. Current data (Figure 5 and Figure 6) suggest a drop off in the frequency of faunal remains with distance from the central hearth feature.

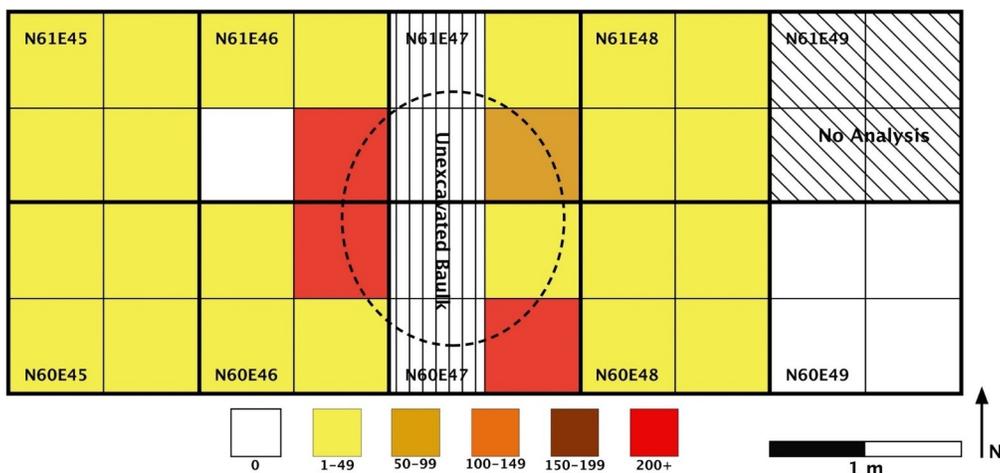
**Discussion**

Our current analysis of the faunal assemblage suggests that the processing and use of animal remains focused near the center of the structure. This is not unexpected given previous archaeological research on Beothuk housepits (Pastore 1986) and historic descriptions of Beothuk mamateeks with central hearths (see accounts in Howley 1915 and Marshall 1996). Caribou bone is by far the most represented species in the faunal assemblage that has been analyzed to date. Based on the location of Sab-bath Point, on the southern

unfused limb fragments and vertebrae also suggest that the animals were hunted in the fall; however, we should stress again that we are still in the early stages of analysis.

There are other animal species present in the faunal assemblage, and further analysis may lead to identification, but for now, they suggest that the Beothuk were hunting or trapping smaller mammals for food or fur, or perhaps both. Until we can identify the species of some of these remains, we will not be able to assess what they provided the Beothuk. The recovery of at least one bird bone, also suggests a more generalized procurement pattern (Kristensen 2011), although birds can be important ideologically as well as economically (see e.g Kristensen and Holly 2013).

Figure 6: Combined Level 1 and 1b NISP frequencies across 2019 excavation units. Dotted circle represents approximate position of central mound feature.



The presence of carnivore bite marks on a small portion of the bones is intriguing. It could suggest that, despite many historic accounts stating that Beothuk did not keep dogs, some did. Their absence among the Beothuk is curious considering that the Innu on the mainland as well as the Mi'kmaq who lived on the island during the historic period had dogs. The Mi'kmaq are known to have later camped at nearby Indian Point (Speck 1922: 21-24). The Montagnais (Innu) were on the island too. Indeed, in his epic trek across the island Cormack met a "mountaineer," his wife, and their joyful Newfoundland dog deep in the interior in 1822 (Howley 1915: 148). Foxes and the now-extinct Newfoundland wolf would have been present and likely attracted to the refuse at Beothuk camps as well.

### Conclusions

While only a small portion of the house has been excavated and analysis of the faunal remains recovered from those excavations have not been completed, some patterns have begun to emerge. They suggest that at the end of the 18<sup>th</sup> or the beginning of the early 19<sup>th</sup> century, the Beothuk that occupied the Sabbath Point site were economically focused on the hunting of caribou during the fall migration. Hunting caribou in the fall certainly would have always been a productive activity for the Beothuk, although their ancestors are unlikely to have spent as long in the interior and were not focused so intensively on caribou as their descendants later would at places like Sabbath Point (Holly 2008; Rowley-Conwy 1990). With our

ongoing analysis of the faunal remains, we hope to get a better sense of when the Beothuk were at Sabbath Point and a clearer picture of what they were eating, with the aim of understanding changes in the Beothuk subsistence economy at this critical juncture in the Beothuk story.

We had intended to return to the Sabbath Point site in the summer 2020, but the pandemic had other plans. It was unfortunate that we were not able to continue our excavations at Sabbath Point in 2020 for a number of reasons, not the least of which is that the site is at serious risk of being lost to lakeshore erosion. Our analysis of the faunal remains, as well as the soil samples and artifacts, is ongoing. The pandemic, however, has also slowed our progress significantly, as access to the lab has been intermittent due to health protocols. Hopefully someday we—or someone—will be able to return and excavate more of the site so if it is lost, it is not lost to memory. So long as it stands, the site offers an exquisitely rare window into Beothuk life and livelihood at the turn of the 19<sup>th</sup> century.

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