2016 Archaeological Reconnaissance at Johannes Point, Hebron Fiord

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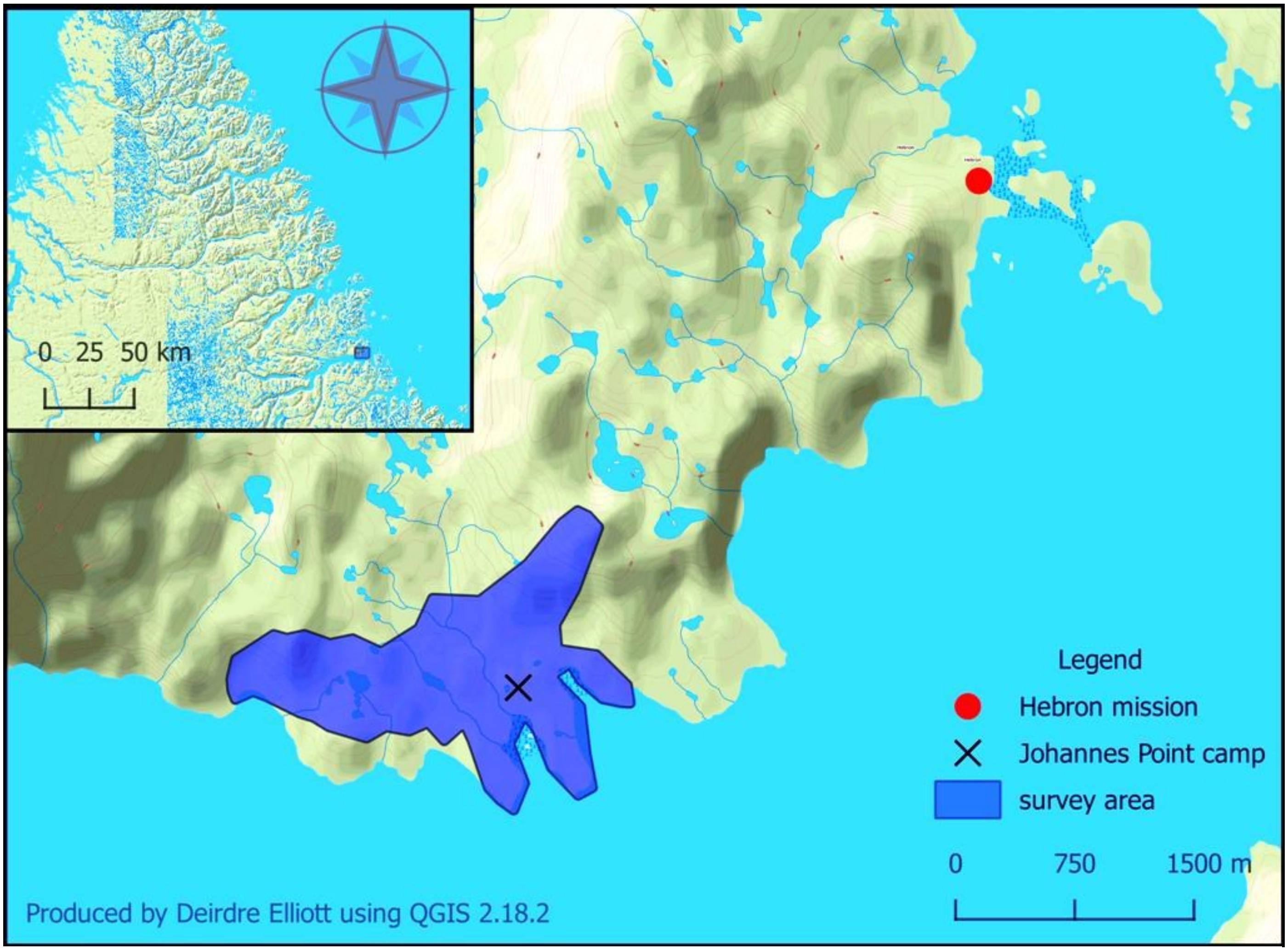


Figure 1. Johannes Point survey area.

Introduction

Between June 30 and August 16 a Memorial University team of six conducted reconnaissance survey, mapping and test excavation in and around the precontact and historic Inuit winter site of Johannes Point 1 (IbCq-1), 6 km west of Hebron on the north side of Hebron Fiord (Figure 1). The goal of fieldwork in 2016 was to better characterize settlement and economy during the early period of Inuit occupation of the northern Labrador coast, as part of a larger exploration of the period of precontact colonization of northern Labrador that has been ongoing since 2003. In addition, the crew experimented with use of a small UAV for site mapping at Johannes Point, and assisted Michelle Davies' community archaeology work at Hebron by conducting mapping flights there as well. The crew consisted of Peter Whitridge, Deirdre Elliott, Meghan Walley, Kyle Crotty, Julia Longo and Shawn Solomon.

Whitridge presented an overview of the season's plans in a public meeting in Nain on June 30, and then he and Solomon traveled to Hopedale to

Figure 2. Excavation and mapping at Johannes Point 1 (IbCq-1) July 2016, facing S. From right to left: Meghan Walley and Julia Longo in House 11 midden test, Kyle Crotty and Deirdre Elliott mapping.

meet up with the rest of the crew. The crew travelled to Johannes Point aboard the Ocean Endeavour, through generous in-kind support to the Tradition and Transition Research Partnership, arriving at the field site and establishing a camp on the overlooking terrace on July 6. The camp was ringed with two fences: a single wire acting as a tripwire alarm, and an electrified deterrent fence consisting of webbing about 1.2 m high. The tripwire was set off by polar bears on multiple occasions but none came in contact with the electrified fence. From then until breaking camp on August 12 we divided our time between foot survey of a thin scatter of sites and features within a couple of kilometres of camp; total station mapping of a restricted region centred on IbCq-1; detailed UAV mapping of the latter area, Hebron and feature complexes near Johannes Point; testing of prospective winter house features in a gully northeast of the winter village, and excavation of a 5 m^2 test in the substantial midden adjacent to one of the semi-subterranean sod houses (Figure 2). We closed camp on August 12 and were transported to the Torngat Base Camp and Research Station at St. John's Harbour, Saglek Fiord, and then to Nain. On August 15 we made public presentations on the summer's work, alongside Michelle Davies' report of her activities at Hebron, and on August 16 returned to St. John's.

Methods

1) Reconnaissance survey

Johannes Point 1 was originally identified, and a number of features tested, by the Torngat Archaeology Project in 1977-78 (Kaplan 1983), at which time a handful of ancillary sites of various ages were also recorded. Stephen Loring mapped some of the enigmatic depressions in the gully above the main house row not reported by TAP, and John Higdon of Parks Canada accompanied a team of Swedish geologists to various locations in and around Saglek and Hebron Fiords in 2014, to monitor their work and guide them away from archaeological features (Higdon 2015). In

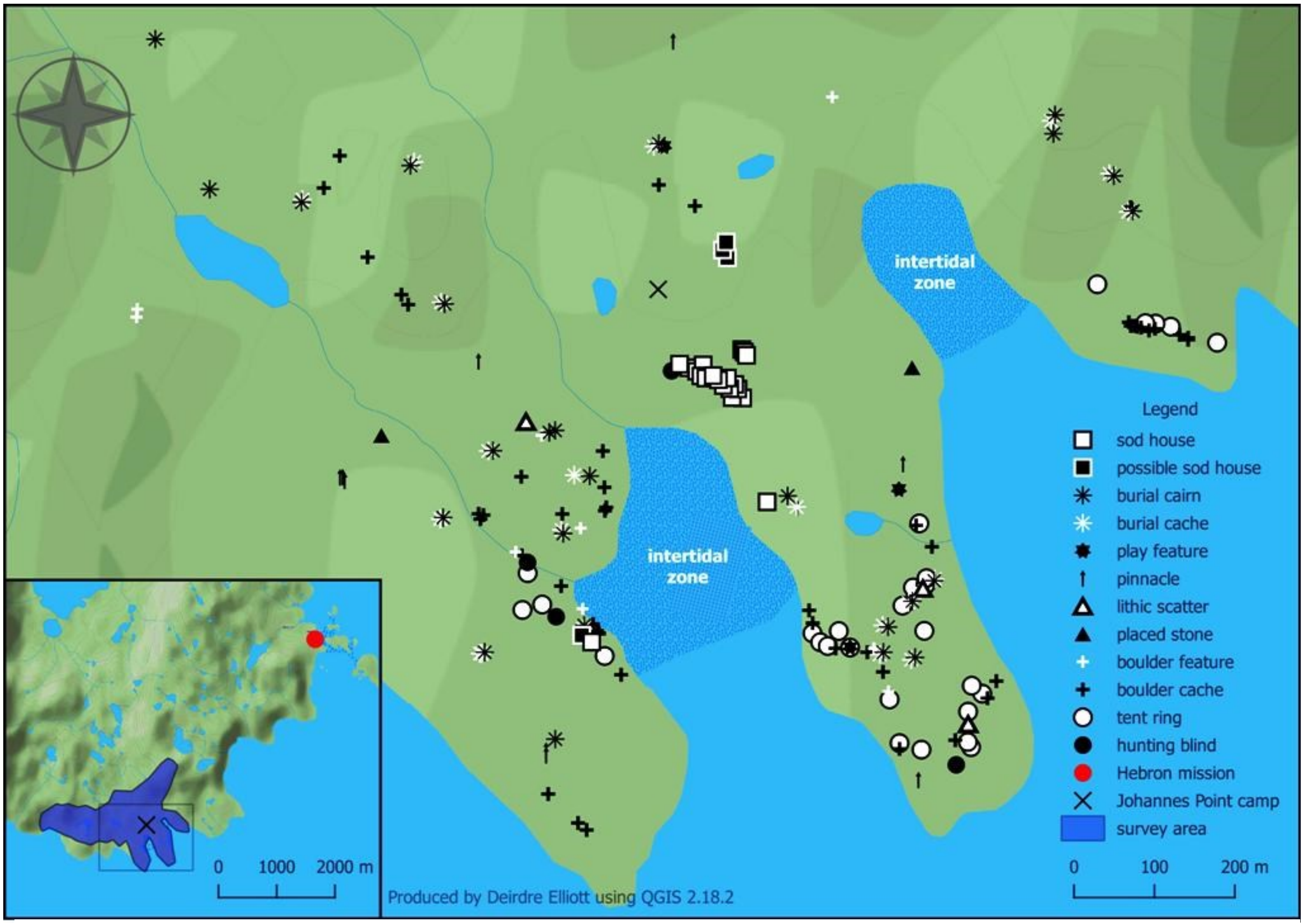


Figure 3. Johannes Point survey results.

only a brief site visit Higdon recorded several additional sites and features adjacent to IbCq-1 (IbCq-8, IaCq-2, 3 and 4), suggesting the value of a more intensive inspection of the site surroundings. In July and August 2016 an area of approximately 200 ha centred on IbCq-1 was inspected by teams of 2-6 field crew members. Vegetation was sparse or absent in much of the study area and most was revisited on more than one occasion, so coverage is felt to be fairly complete. Features ranging in age from Predorset to twentieth century were represented by piles, clusters, rings and other deliberate arrangements of boulders and cobbles, sod depressions, and occasionally by associated artifacts (principally of chipped stone, ceramic, and iron). These were systematically documented with handheld GPS, handheld and UAV photography, measurements, sketches and brief written descriptions.

2) Site mapping

An area of approximately 9 ha centred on the principal winter house cluster was mapped by total station and prism rod, allowing a detailed topographic reconstruction of the site locale. The morphologies of approximately 22 sod winter houses (and possible houses) were recorded in particular detail, although heavy growth of sedges and willow shrubs sometimes made their outlines difficult to discern. A small UAV quadcopter (DJI Phantom 3 Professional) was used to film and photograph Johannes Point 1 and nearby sites and features. The UAV was also assigned mapping transects with “Map Pilot for DJI”. This software allows areas on the ground to be delimited within a polygon, transect and photograph intervals specified (to produce more or less detailed photographic coverage), and the UAV then instructed to fly the specified path at a specified speed (affecting clarity of the images) and elevation (affecting resolution). A 7.6 ha area including the main winter house cluster, and overlapping much of the area mapped with the total station, was documented in this way. An analogous set of drone mapping transects was executed over an unusual cluster of simple inuksuit identical to Kaplan's (1983) "pinnacles" (see also Whitridge 2016), and at the Hebron Mission site (IbCp-1) to support Davies' research there.

3) Test excavation

Two sets of test excavations were conducted. A 5 m^2 trench was excavated to sterile in the presumed midden immediately northwest of the entrance tunnel of House 11 (using Kaplan's [1983] feature designations). The units were excavated in arbitrary 10 cm levels and artifacts recorded with three dimensional provenience. Approximately 1 litre sediment samples were retained from each level in one of the units. Due to the productivity and depth of the deposits, this excavation occupied much of the crew for much of the season. In addition, three shallow test units (2 x 1 m^2 and 1 x .5 m^2) were opened in and adjacent to two presumed house features in a gully 130 m northeast of the winter house row and 100 m east of our field camp that had been noted by Stephen Loring. These were initiated to occupy the crew while a polar bear slowly consumed a freshly killed seal on the terrace adjacent to one of the sod house features at Johannes Point 1. Since the gully features were close to our field camp, and approximately 16 m higher in elevation than the bear kill, a safe watch could be maintained for the few days that the bear retained interest in the carcass.

Results

1) Reconnaissance survey

One hundred and ninety features were recorded during foot survey of the immediate region (Figure 3; Table 1). The main house group at IbCq-1 (Figure 2) consisted of 16-18 sod house depressions of various apparent ages ranging from perhaps the late 15th century to the early 19th century, many with evidence of stone and whale bone architectural elements. In addition, a feature defined by sod berms with vertical interior walls likely represents the insulative banking around the walls of a wooden cabin made with imported lumber. Per historic Inuit practice in northern Labrador, the original cabin must have been dismantled and presumably re-erected elsewhere. This interesting architectural form is often depicted in late 19th and early 20th century photographs of Labrador communities, and can be considered a hybrid housing style of the later historic period that was used by Inuit and Settlers alike (Rankin 2015). One of these occurred south of the main sod house group at IbCq-1 (and is treated in existing site records as part of IbCq-1) and another occurs across the tidal flats at IaCq-3. A number of the sod houses at IbCq-1 were tested by the Torngat Archaeology Project and, together with results of 2016 testing, suggest the northern part of the site was not in use in early historic times, presumably as the community coalesced in a smaller number of physically larger dwellings (communal houses) towards the southern end of the site. Another possible semi-subterranean dwelling is represented by an isolated, large (but shallow), rectangular sod depression defined by massive blocky boulders and a bedrock ledge. It occurred on the slope across the tidal flats from IbCq-1, and at somewhat higher elevation than nearby historic features, and may be a pre-Inuit dwelling (Inuit residential features rarely make use of boulders of this size). It appears to belong to the feature cluster designated IaCq-3. An additional three to four sod depressions resembling Inuit winter houses were situated in an elevated gully northeast of the main house group at IbCq-1.

Table 1. Features recorded in 2016 Johannes Point survey

	n
sod house	24
tent ring	28
burial cairn	27
burial cache	22
boulder cache	50
boulder feature	10
hunting blind	4
fox trap	1
lithic scatter	4
play feature	3
placed stone	5
pinnacle	12
TOTAL	190

Twenty-eight tent rings ranging in age from (likely) Predorset (based on the presence of non-

Ramah cherts) to historic (based on the presence of ceramic and metal artifacts) occurred in several clusters within the study area (Figure 4). Most of the tent rings appear to be the remains of either pre-Inuit or later historic Inuit summer dwellings, although some (at slightly higher elevations than the obviously historic features, and with bounding stones firmly buried in sod) may be contemporaneous with the earlier historic or precontact sod houses.

While the tent rings were invariably close to the beach, 27 burial cairns tended to occur at higher elevations, and sometimes quite far from shore. Some of the latter occurred in locations with commanding or otherwise striking views; one isolated cairn was dramatically situated next to a serene pond far from the shoreline. Some of these contained human remains and mortuary goods (including modern offerings), but many (especially those closer to the Johannes Point cove) appeared to be empty and were identified based on their distinctive morphology (typically, an ovoid cairn with an interior crypt, converging sides, and an upper surface sloping downwards towards the narrower end). Typical of precontact and early historic Inuit mortuary practice in northern Labrador, burial cairns were often clearly associated with a nearby boulder cache (and occasionally multiple caches), termed a burial cache in Figure 3.

Of those not associated with burials, fifty boulder caches of various descriptions were recorded, many taking advantage of an outcrop for the back wall. Ten amorphous boulder piles were identified only as "boulder feature" but may be dismantled boulder caches. Four probably historic bird hunting blinds were identified amongst bedrock outcrops close to shore and one particularly well built hollow cairn was identified as a possible precontact-style fox trap. Three enigmatic arrangements of cobbles are possible play structures, and three scatters of pre-Inuit chert flakes and/or tools not obviously associated with a structure were recorded. The only artifact that was surface collected was a roughly chipped slate biface (perhaps a broken preform for an Inuit lance blade) encountered in the intertidal zone close to IbCq-1. Five features consisting simply of individual stones seemingly deliberately placed in prominent locations on erratics or bedrock outcrops were recorded (Figure 5); their cultural significance is hinted at by the occurrence of a charcoal-coloured (Kaumajet?) chert core and broken hammerstone in a bedrock crevice beneath one of them (Figure 6). The latter is tentatively taken to be a pre-Inuit ritual deposit, since the functional rationale for caching a fist size core at this location, and in this fashion, is elusive. Others may likewise be pre-Inuit, but a concerted effort to identify associated deposits was not made (the one with the serendipitously discovered core was the last encountered). Twelve features consisting of elongated slabs or boulders wedged in bedrock crevices or propped with smaller support stones around the base (and in the present survey often encountered in toppled form) were identified as pinnacles; all lack a clear association with Inuit features (Figure 7).

The reconnaissance results are consistent with warm season use of the points on either side of the Johannes Point cove by pre-Inuit (Predorset through Late Dorset, although a Maritime Archaic presence is possible) and historic/recent Inuit for bird hunting and perhaps sealing and fishing, and prolonged winter residency in the various sod houses by precontact and historic Inuit, and to some extent likely by pre-Inuit as well. Breathing hole sealing was probably the principal winter occupation of all groups in the area. A precipitous decline in the scale of winter settlement at Johannes Point, which seems to have consisted of only a single cabin in later years, likely coincides with the establishment of the Moravian mission at Hebron in 1831. Based on the longevity and seasonal use life of sod houses, most of the burials and some of the caches are likely associated with the Inuit winter occupation. Pre-Inuit occupants of the area are tentatively assumed to be responsible for the pinnacles, as well as some of the tent rings and caches. Inuit location markers (inuksuit) at contemporaneous sites in northern Labrador tend to be composed of multiple small, blocky boulders, or single stones set atop glacial erratics or outcrops (e.g. Figure 5; Whitridge 2016).

2) Site mapping

A total station survey of the winter house row at IgCq-1 allows a detailed topographic map (currently in progress) to be made of the site environs. Towards this end, recording some 1850 coordinates and elevations of features and topography occupied two fieldworkers for about half of the season (Figures 2 and 8). In contrast, the pre-programmed UAV mapping flight took two people less than half an hour (this was

Figure 4. Pre-Inuit tent rings on Johannes Point, southeast of IbCq-1 (facing N).

Figure 5. An inuksuk-like "placed stone" consisting of a pyramidal cobble atop an erratic.

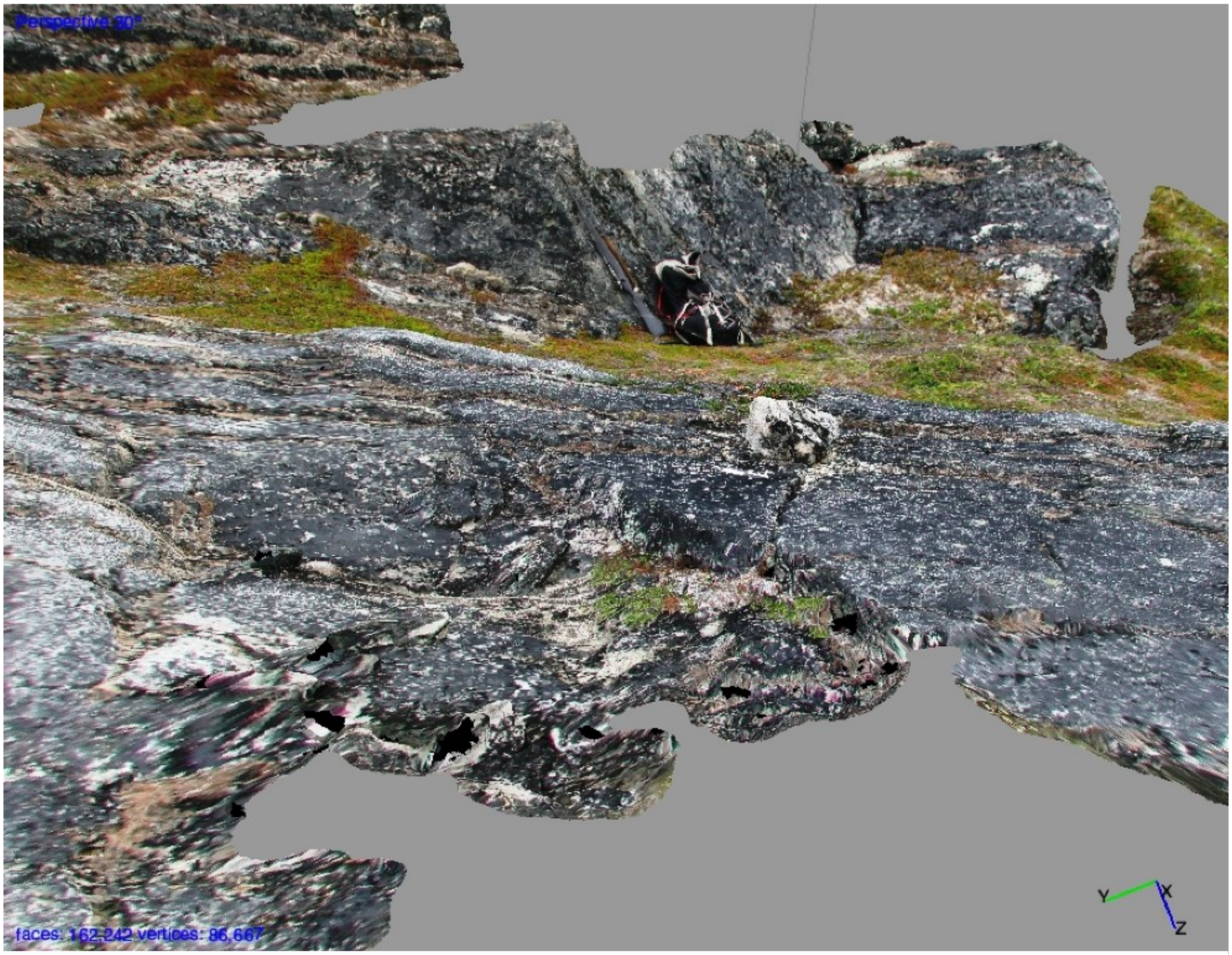


Figure 6. Pyramidal cobble placed atop a bedrock crevice containing a charcoal-coloured chert core and hammerstone fragment. This is a low resolution screen capture of a navigable three dimensional model generated in Agisoft Photo Scan using 39 photographs taken in about 5 minutes with a handheld digital camera.

Figure 7. One of a group of three pinnacles on a hilltop 500 m WSW of IbCq-1. One of the others is tilted at a sharp angle but is presumed to have originally been upright; the third is collapsed and its principal stone broken.

Figure 8. A conglomeration of historic sod houses at IbCq-1, with pink flags marking total station recording points. Deirdre Elliott, operating the UAV, and Kyle Crotty are at upper left.

actually flown twice, the second time at a slower speed and with a larger number of photographs, to produce higher resolution 3D and orthophoto imagery). Based on this brief investment of field time it was possible to generate a high resolution aerial mosaic of the entire survey area (Figure 9, left), a photogrammetrically-derived digital elevation model (Figure 9, right), and a navigable three dimensional representation of the entire area that can be inspected at any elevation and from any angle (Figure 10). Depending on the processing power of the computer used, generating imagery from the raw photographs in Agisoft PhotoScan can take a matter of days or hours, comparable to quickly generating useable topographic maps from total station data. However, in the case of PhotoScan very little of the procedure demands the analyst's active input; the vast majority of it runs as a background computational process. The PhotoScan imagery can also be exported to GIS software to generate actual contour lines, and so potentially matches the total station in functionality (a comparison of contour maps generated by each approach is planned). UAV mapping flights were undertaken at Hebron on two occasions, the second at substantially higher resolution than the first. Although only a low resolution 3D model and orthophoto mosaic have been generated to date, these are conceptually satisfying representations of a complex historical landscape, and usefully supported Davies' ongoing research there (Davies 2016).

Although the ultimate resolution of total station data may be superior to UAV data (depending

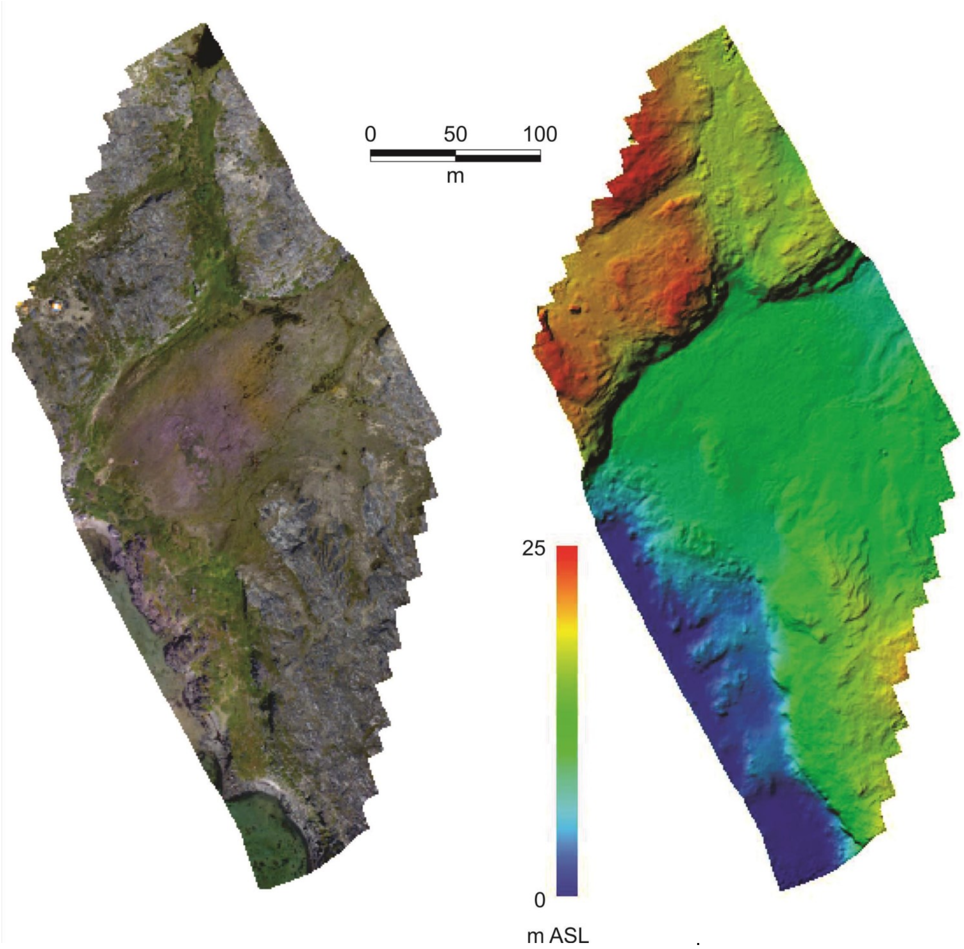


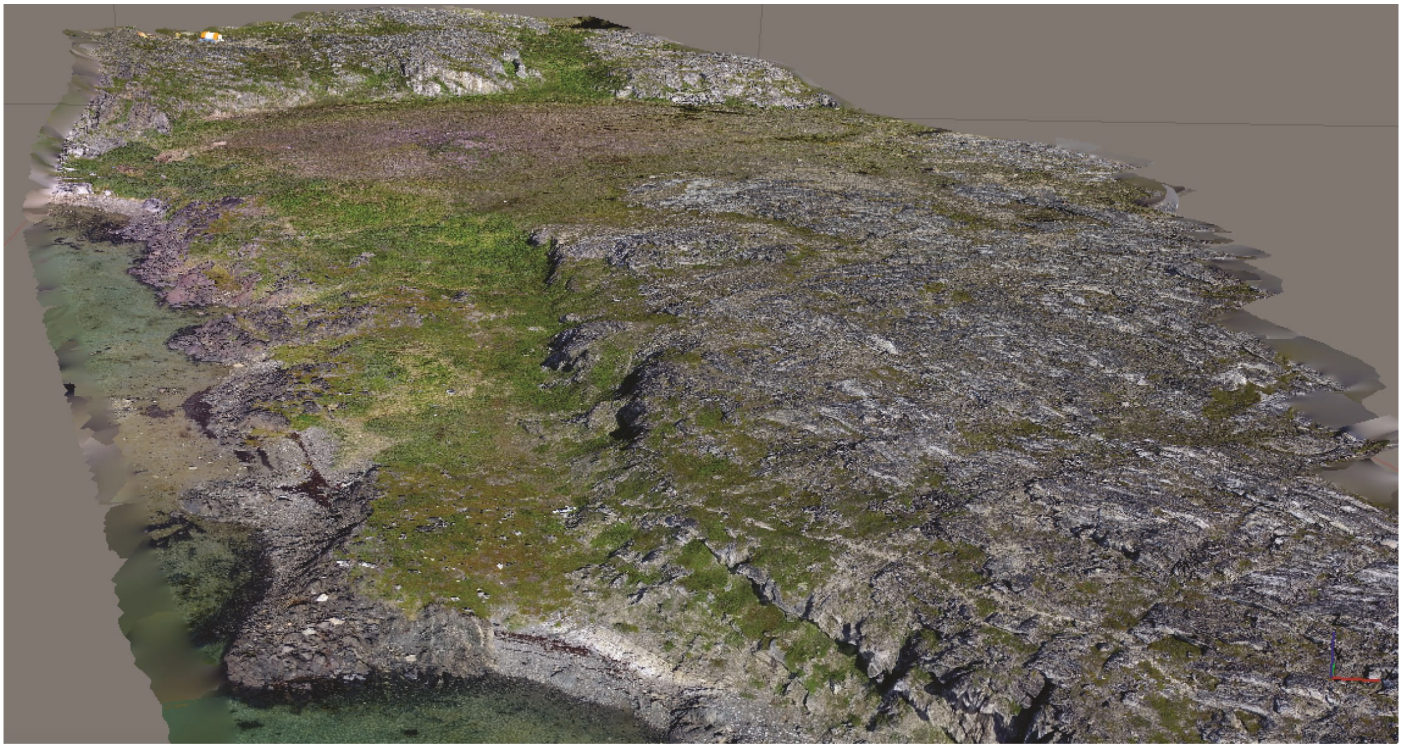
Figure 9. Orthophoto mosaic of IbCq-1 survey area (left; our cook tent is at upper left) and a photogrammetrically-derived digital elevation model of the same area (right; note the cook tent appears as a reddish orange lump) generated in Agisoft PhotoScan.

on the number of surveyed points), the practical utility of the UAV data is arguably much greater: the site can be virtually revisited at ground level or from overhead, and from any angle and at a wide range of resolutions (the final resolution of the highest quality stitched imagery that can be generated with a more powerful computer is currently uncertain, but PhotoScan reports the resolution of the low quality 3D model and orthophoto mosaic illustrated here as 1.61 cm/pixel; the twine defining the H11 midden excavation grid is clearly visible in the zoomed model). Such photogrammetrically stitched UAV imagery is immensely useful as an interpretive tool, as a historical record of the site area, and for public communication. The total station remains useful for generating ground control points to spatially fix and scale the PhotoScan images (though PhotoScan does an impressive job just with the GPS tags attached to the UAV photos), but the investment of roughly five person-weeks of field labour to generate the raw data for a contour map did not yield nearly the same reward as an hour of person-labour to produce the UAV imagery. A serious drawback to reliance on a UAV in a remote field setting is its greater vulnerability to catastrophic failure (due to a serious crash), so the availability of a total station remains advisable.

3) Test excavation

Although the gully depressions were morphologically similar to sod houses, and appear in near-infrared satellite imagery as a "hot zone" of organic deposition (Figure 11), 1 m² tests just outside and just inside the presumed entrance tunnel of the larger one (Gully Feature 2) did not produce any cultural material besides a single piece of charcoal. The other feature in this group (Gully Feature 1), tested with a 1 x .5 m² trench on the presumed house floor, produced abundant charcoal and a small number of lithic flakes and artifacts. These include a fragment of a Ramah chert uniface, a tiny graver/burin of brownish-grey chert, and what appears to be slate debitage. While this small assemblage is culturally somewhat ambiguous, and the feature had the surficial appearance of a small Inuit sod house with entrance tunnel, it seems to have been a pre-Inuit ("Paleo-Inuit") dwelling. Radiocarbon dating of charcoal samples should better resolve this assignment. Gully Feature 2 is more problematic, and given the virtual absence of cultural material in the tests its identification must be considered uncertain: despite its distinctly sod house-like morphology and near-infrared footprint it may not be a cultural feature.

The test of the presumed midden deposit adjacent to House 11 (Figure 12) involved the excavation of 5 m² to a depth of approximately 70 cm, and yielded a large assemblage of soapstone, slate and



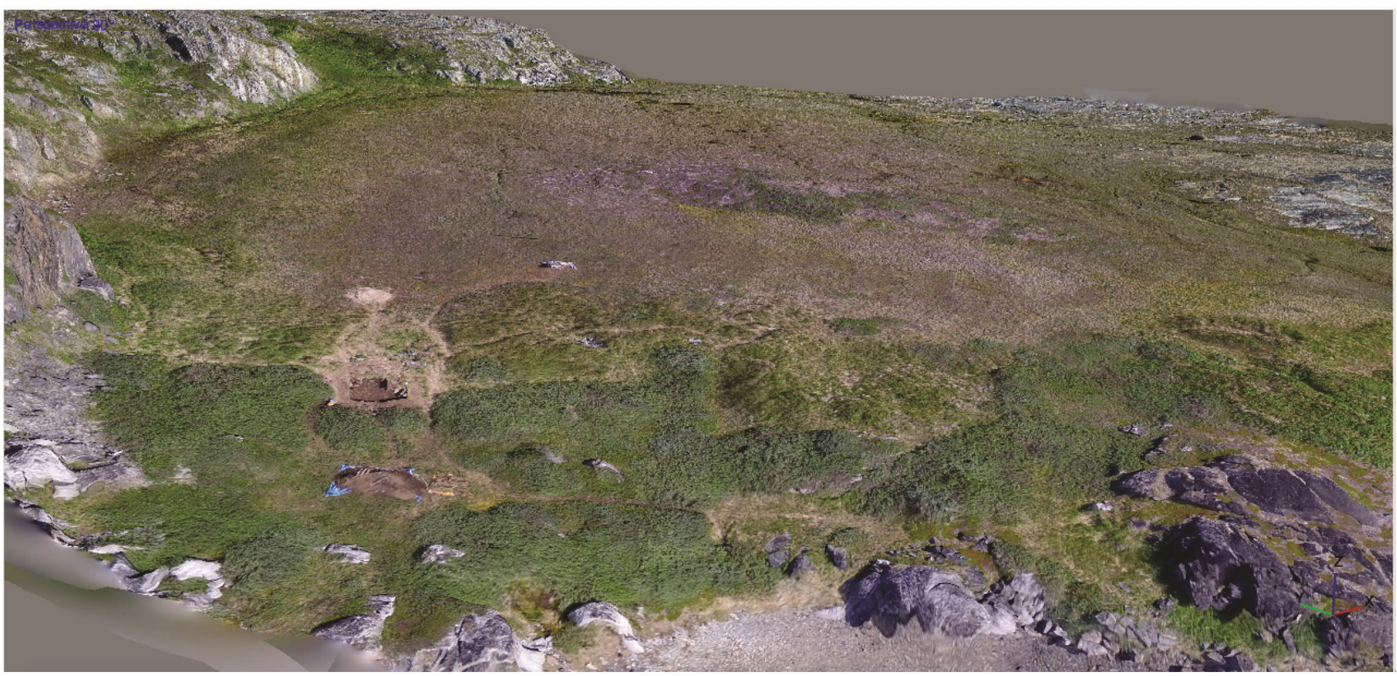


Figure 10. Low resolution screen captures of two views of IbCq-1 (top facing NW with cook tent at top of image, bottom facing ENE with House 11 midden test in foreground) from a model generated in Agisoft PhotoSscan.

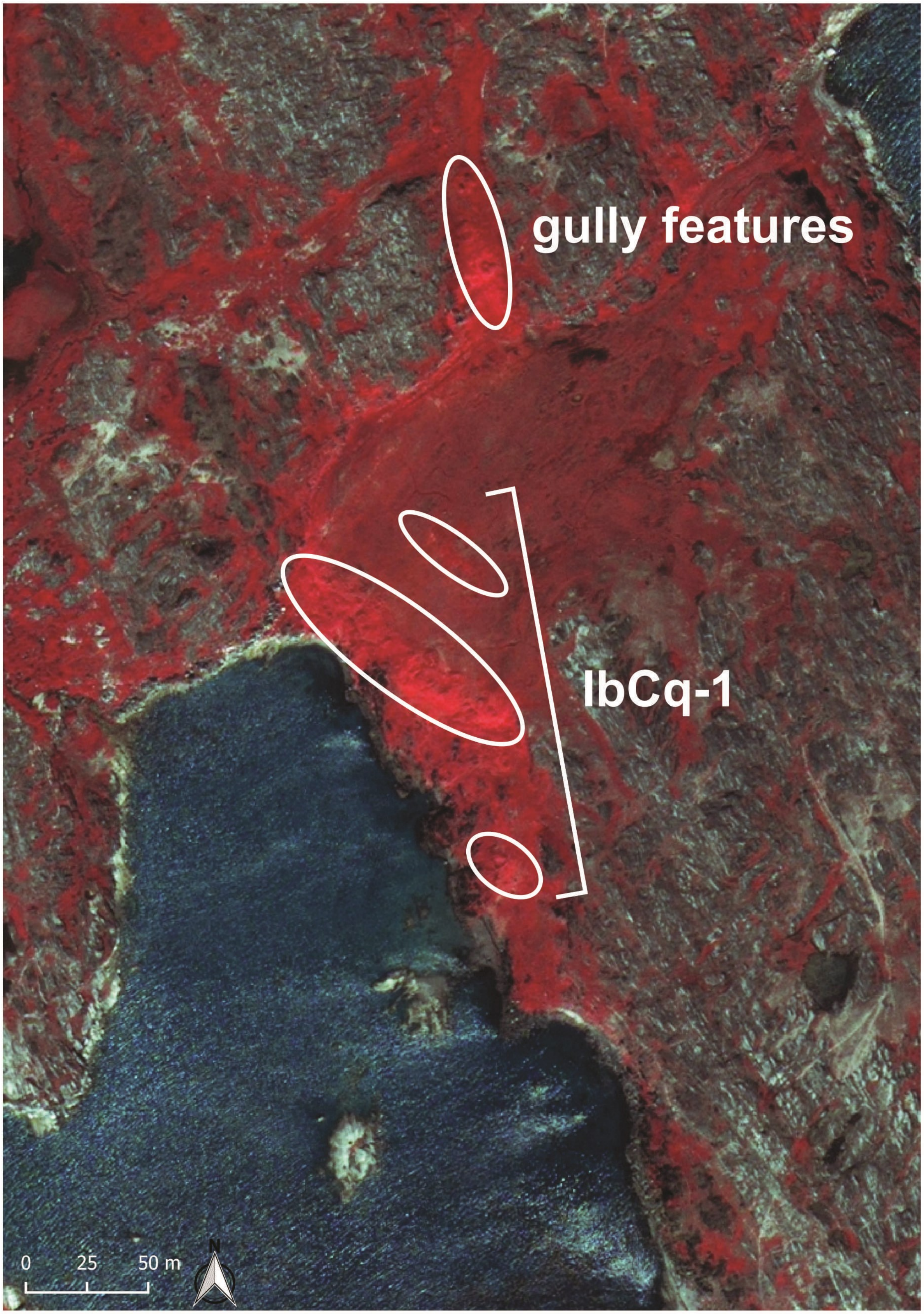


Figure 11. Near-infrared satellite photograph of Johannes Point 1. The three ellipses labelled IbCq-1 represent, from top to bottom, a small cluster of houses identified by TAP tests, the main winter house row, and a single later historic cabin berm. Biotic activity is reflected in the intense pinkish red hue of the main house row, and in association with some of the gully features.

Figure 12. Completed House 11 midden test, photographed by UAV (facing ENE).

nephrite (both tools and debitage), carbonized material (mainly charcoal and charred fat), chert tools and debitage, and iron nails and fragments (Table 2). Organic preservation was generally poor; bone, when it was recognized, was typically so degraded that it could not be recovered intact, although near the bottom of the test (about 60-80 cm below surface) relatively well-preserved bone began to be encountered. Carbonized organic materials, however, were consistently abundant, and accounted for over one quarter of recovered specimens (either individual lumps of charcoal/charred fat or aggregated unit-level samples - i.e., from arbitrary 10 cm levels of 1 m^2 units - of small fragments).

Soapstone, slate and chert composed the bulk of the artifact assemblage, either as tools, tool fragments or debitage. Small flakes or fragments of all three materials were abundant, and were collected by unit-level; larger flakes and artifacts were also common and were point-provenienced. Fragments of soapstone lamps and pots and slate blades were the most common types, but a significant assemblage of miniature pot (n=9; Figure 13) and lamp (n=6; Figure 14) fragments was recovered. The pots (three of which were mostly complete) ranged in length from 21 to 26 mm, and in height from 4 to 10 mm. Although most cooked food at this time of year would have been prepared in soapstone pots, and soapstone lamps were the principal winter source of indoor light and heat, it is unusual that non-functional representations of these critical types made up 9.7% and 6.5% of the soapstone artifact assemblage, respectively. An ethnographic function of such miniatures was to sympathetically guarantee the life of the full size version,

	n									%								
LEVEL	1	2	3	4	5	6	7	8	ALL	1	2	3	4	5	6	7	8	ALL
charcoal	1	11	9	10	11	3	1		46	33.3	9.2	5.9	7.4	9.5	3.5	2.9		7.0
charred fat		1		4	2				7		0.8		2.9	1.7				1.1
charred organic material		17	24	23	20	20	8	1	113		14.2	15.8	16.9	17.2	23.3	22.9	20.0	17.3
TOTAL	1	29	33	37	33	23	9	1	166	33.3	24.2	21.7	27.2	28.4	26.8	25.8	20.0	25.4
bone		4	2	3	2	6	3	1	21		3.3	1.3	2.2	1.7	7.0	8.6	20.0	3.2
whale bone		1		2	1	1	1		6		0.8		1.5	0.9	1.2	2.9		0.9
baleen						3			3						3.5			0.5
fur			1		1				2			0.7		0.9				0.3
shell			1	1	1				3			0.7	0.7	0.9				0.5
wood				3	3	1	3		10				2.2	2.6	1.2	8.6		1.5
unidentified organic material			3	13	7	9	2		34			2.0	9.6	6.0	10.5	5.7		5.2
TOTAL		5	7	22	15	20	9	1	79		4.1	4.7	16.2	13.0	23.4	25.8	20.0	12.1
chert		6	10	3	4		2		25		5.0	6.6	2.2	3.4		5.7		3.8
clay			1						1			0.7						0.2
graphite			1		1	1			3			0.7		0.9	1.2			0.5
mica		2	1						3		1.7	0.7						0.5
nephrite		1	3	2	3	2			11		0.8	2.0	1.5	2.6	2.3			1.7
quartz			1	2					3			0.7	1.5					0.5
sandstone			2			1	1		4			1.3			1.2	2.9		0.6
slate		12	8	18	14	12	2	1	67		10.0	5.3	13.2	12.1	14.0	5.7	20.0	10.3
soapstone		18	41	13	14	5	2		93		15.0	27.0	9.6	12.1	5.8	5.7		14.2
misc flakes	1	28	30	33	31	20	10	2	155	33.3	23.3	19.7	24.3	26.7	23.3	28.6	40.0	23.7
misc mod stone		4		1	1	1			7		3.3		0.7	0.9	1.2			1.1
TOTAL	1	71	98	72	68	42	17	3	372	33.3	59.1	64.7	53.0	58.7	49.0	48.6	60.0	57.1
glass		1							1		0.8							0.2
iron	1	14	14	5		1			35	33.3	11.7	9.2	3.7		1.2			5.4
TOTAL	1	15	14	5		1			36	33.3	12.5	9.2	3.7		1.2			5.6
GRAND TOTAL	3	120	152	136	116	86	35	5	653	99.9	100.1	100.3	100.1	100.1	100.4	100.2	100.0	100.2

Table 2. House 11 midden test finds by level and material type.

which might account for their abundance. Alternatively, they may have functioned as playthings or ornaments. Some were drilled for suspension, which seems consistent with a magical use, but perhaps also an ornamental one. Conceivably, the objects could have had multiple and/or mixed uses (i.e., some might have been amulets and some toys, or particular examples might have had, or cycled through, different uses). Although complete pots and lamps are sometimes encountered on Inuit sites in Labrador (a substantial portion of a pot was even recovered from Level 5 of the H11 midden test) the abundance, completeness, and apparent realism of these representations makes them useful guides to soapstone lamp and vessel forms.

Although rare in the H11 midden, nephrite was an interesting occurrence in Levels 2 through 6. While absolute numbers suggest relatively little change in abundance over this period there is a gradual decline from the lower to upper levels. The nature and size of the finds are also significant. Nephrite artifacts from the lower levels were substantially larger than those in the upper levels, and tended to represent formal tools or tool portions rather than generic flakes or fragments. Three drill bits (Figure 15) of various gauges were recovered, as well as an adze bit and several polished flakes. Based on the Johannes Point assemblage, and protohistoric components at other winter sites such as Nachvak Village (IgCx-3) and Iglosiatik (HbCh-1), nephrite appears to have been the first indigenous material to fall out of everyday use as European goods began to become available.

Thirty-five iron specimens were recovered, consisting mainly of nails (n=10) and unidentifiable fragments (n=23), along with two probable knife blade fragments. Iron was most abundant in Level 2 (11.7% of finds), declined through Levels 3 and 4, and was absent in Level 5. A single iron fragment occurred in Level 6 and accounted for 1.2% of that level's assemblage. A small shard of thin, well-made sheet glass from Level 2 may be a later intrusion. The low frequencies of these imports, and complete absence of such common early historic materials as

Figure 13. Miniature soapstone pot with deliberately perforated base.

Figure 14. Miniature soapstone lamp.

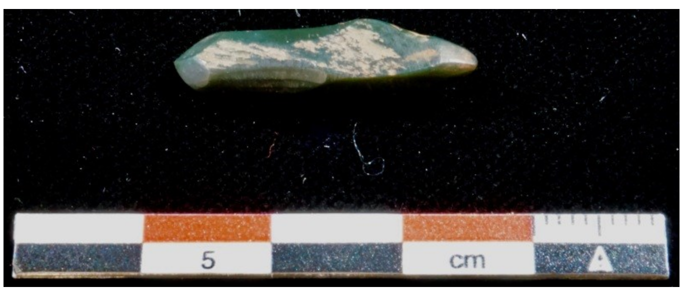


Figure 15. Dual-tipped nephrite drill bit.

bead and bottle glass, ceramic, lead, copper and brass, suggest that refuse accumulated outside this feature predominantly during the late precontact and very early contact (or, perhaps more likely, protohistoric) eras (i.e., from the late 15th to perhaps the late 17th or early 18th century).

Three cultural zones can tentatively be recognized in the midden (the small assemblages from Levels 1 and 8 are here grouped with their neighbouring levels): late precontact (Levels 5-8), early protohistoric (Level 4), and late protohistoric/early historic (Levels 1-3). The lowermost zone (Levels 5-8) yielded almost exclusively indigenous materials, with the exception of a single iron fragment (0.4% of finds in this zone). This is taken to represent an essentially precontact assemblage. The lone iron fragment may indicate a precocious episode of acquisition of European materials in this part of Labrador, such as of those scavenged from Basque sites in southern Labrador that moved through the indigenous trade network, or may be intrusive from an overlying layer. Slate and nephrite were the principal materials for tool bits and blades. The early stage of a proper transition to reliance on imported metals is suggested in Level 4, where iron scraps constitute a small (3.7%) but meaningful constituent of the refuse assemblage, yet slate and nephrite (14.7%) remain in use as primary blade and bit materials. In Level 3, however, a shift to increasing reliance on recycled iron is implied not only by a 250% increase in the frequency of iron from Level 4, but by the unusual rate of discard of useable slate blanks, preforms and complete tools, which constitute 62.5% of a diminishing slate assemblage (slate represents only 5.3% of the Level 3 assemblage). Although slate continued in use through Level 2, the readiness with which elaborately fashioned pieces of raw material were being discarded intact (a third of the Level 2 slate specimens are complete preforms) suggests that its utility had been dramatically undercut by metal availability. The precise timing of this shift is intriguing, and will hopefully be illuminated by future radiocarbon dating.

A comparably precipitous decline did not obtain for soapstone, which actually formed a significantly growing component of the assemblage from the earliest levels through Level 3, although there was a sharp downturn in Level 2. Miniature soapstone pots and lamps, however, were discarded at an extraordinary rate, peaking in Level 3 at 22.0% of the soapstone assemblage. Perhaps these miniatures suffered the same fate as ground slate and nephrite tools, falling out of use in concert with a rapidly increasing engagement with European materials and technologies. But rather than simply the displacement of an indigenous material by a more efficacious imported one, the abandonment of miniatures seems to represent the abandonment of elements of an indigenous belief system that invested miniatures with a magical potency. Alternatively, the exceptionally high rate of discard of miniature pots in particular might reflect the progressive abandonment of soapstone cooking vessels in favour of metal ones. However, given that soapstone lamps continued in use, the flurry of discard of miniature lamps as well tends to favour the former scenario of a change in magico-ritual practices and beliefs during the very early contact era.

Although poor organic preservation resulted in a disappointing scarcity of faunal remains and the absence of formal tools in organic materials, the ground stone assemblage proved informative. Ongoing analysis of these materials, as well as the aggregate 'flake' samples, the results of flotation of sediment samples from one of the H11 midden units, and radiocarbon dating of charcoal samples from all levels, will greatly refine this sketch of material change across the precontact/contact boundary in northern Labrador.

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