Archaeological Fieldwork Report
Alluitsoq / Lichtenau 2019

Submitted to:
Nunatta Katersugaasivia Allagaateqarfialu / Greenland National Museum and Archives

In fulfillment of:
Permit for Excavation and Survey in Greenland No. 2019/04

Submitted by:
Cameron C. Turley, PI

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INTRODUCTION

The following report is submitted to the Greenland National Museum and Archives (NKA) in fulfillment of the reporting requirements for permit **No. 2019/04** issued to Cameron C. Turley (PI) of the City University of New York. As stated in the approved permit application, The Alluitsoq Project had several major goals for the 2019 archaeological field season that consisted of: 1) Excavation and stability assessment of previously identified middens associated with 18th- to 19th-century Inuit sod houses threatened by coastal erosion, to identify any additional endangered middens, and to gather information to plan future mitigation efforts; 2) Data collection for PhD (Turley, Coleman, Møller) and MA (Bendtsen) theses which includes faunal remains, artifacts, and organic residue samples. These graduate student research projects address various aspects of people's negotiations of colonial and imperial worlds, and, in collaboration with Møller's Noorliit project help to produce a multi-sited view of these processes; 3) Data collection for contribution to long dureé historical ecological and culture contact studies conducted by the North Atlantic Biocultural Organization's (NABO) RESPONSE and North Atlantic Encounters projects; and 4) Creation of a community-based archaeological program in Greenland with specific targets of Greenlandic student training, professional development, community outreach, and knowledge co-production. Field operations were funded by a National Science Foundation, Office of Polar Programs, Arctic Social Sciences Program Doctoral Dissertation Research Grant #1824755 (Co-PI Turley), and a grant from the PSC CUNY Adjunct-CET Professional Development Fund (PI Turley).

Figure 1. 2019 crew from left to right: Caitlyn Breen, Aká Bendtsen, Pivinnguaq Mørk, Cameron Turley, Grace Cesario, Nikkie Bendtsen.

Excavations and survey at Alluitsoq were carried out from June 22nd to August 1st, 2019. The excavation team consisted of six members (Figure 1): Cameron C. Turley (PI, CUNY), Aká Bendtsen (Site co-director, Ilisimatusarfik), Pivinnguaq Mørch (Ilisimatusarfik), Nikki Bendsten, Grace Cesario (CUNY), and Caitlyn Breen (CUNY). The crew excavated two of the middens described in the original approved project proposal and identified and excavated a large portion of one additional eroding midden. Total area of excavation was 5 square meters, with trench depths ranging from approximately 40cm to 110cm. Middens 1 and 2 had significant erosion impacts (a

loss of ~5-10cm of coastline) since the initial 2017 site survey. Site survey following excavation was another major activity undertaken during the season. Survey consisted of pedestrian surface and erosion face inspection, subsurface testing with a sediment probe, and drone mapping. During survey, one additional major midden was identified on the south side of the bay from this season's excavation areas as an intact but endangered deposit associated with ruins at the site's southern house cluster. Community outreach and engagement was successful in bringing numerous visitors to the site, which also produced new ideas of how to build upon that engagement.

SITE BACKGROUND

Alluitsoq (formerly Lichtenau) was the first mission in South Greenland (Figure 2)—opening to its congregation in 1774 (Jensen et al. 2011). The Sydprøven trading post (contemporary Alluitsup Paa) was established 5km to the south in 1830 and connected to the mission via a coastal footpath (Rink 1974), providing relatively easy access to imported provisions through trade or as payment for services. Alluitsoq was operated by the Moravians until 1900, then by Denmark until its official closure in 1974. Inuit lives and culture in South Greenland developed from the early decades of the region's colonial project to just five years before formation of the Greenlandic Government (*Landsstyre*) and the national parliament (*Landsting*) as part of the Home Rule initiatives (Dahl 1986). Inuit from East and West Greenland have a long history of interaction, principally through trade relationships, at the crossroads of South Greenland, though these meetings were often accompanied by suspicion (Cranz 1776; Jensen et al. 2011). Following European colonization of South Greenland, through the establishment of Danish trade stations and Moravian mission settlements in the late 18th century, many East Greenlandic Inuit migrated to and permanently settled in the south at places like Alluitsoq.

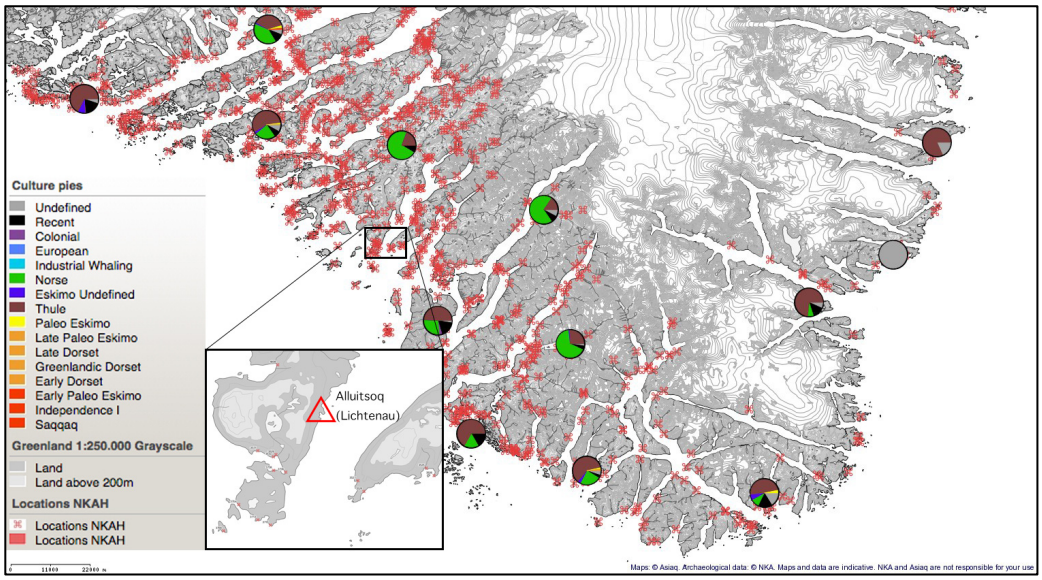

Figure 2. Alluitsoq / Lichtenau is located in southern Greenland, several kilometers north of Alluitsup Paa

The population at this mission settlement grew rapidly, and by 1836 the Inuit inhabitants had constructed 19 sod houses and 7 trapezoid tent structures—and perhaps 24 sod houses by the mid-1840's. These original Inuit homes were abandoned in the 1920s and left to fall into ruins as

the population constructed wooden, European-style homes. The site currently comprises a well-maintained historic wooden European church, mission house, and outbuildings and a cluster of Inuit sod house ruins with associated midden deposits along the shoreline. Some of these houses were built over the foundations of the older, abandoned homes. In many cases, a family's vegetable garden was then established in the old midden, where they frequently found bones and artifacts when tilling the garden. Today, only one sheep-farming family lives at Alluitsoq. Despite this, Alluitsoq remains an important place for Greenlanders, as the original church is meticulously maintained for occasional ceremonies, descendants keep summer vacation homes, and residents from across the region gather there for parties from time to time.

Site testing in 2017 identified three rapidly eroding middens associated with historic Inuit houses. Several of these sod houses and their middens correspond to those recorded on Samuel Kleinschmidt's mid-1840s painting and Jakob Arøe's 1836 map (Figure 3). The resident sheep farmer and fisherman, Mr. Hansen, who has lived at the site since 1935, reports that apart from gardens the site has never been plowed, but is kept as improved pasturage for sheep. In 2017, midden profiles exposed on multiple erosion faces were cleaned and inspected to reveal deep, well-stratified deposits densely packed with artifacts and bones. Core sampling behind erosion faces confirmed these middens still retained more than a meter of horizontal integrity, confirming Mr. Hansen's information. However, according to Mr. Hansen, erosion has claimed as much as 30cm of coastline per year in some areas during the last decade. The archaeological record once preserved on the shoreline is presently washing into the fjord.

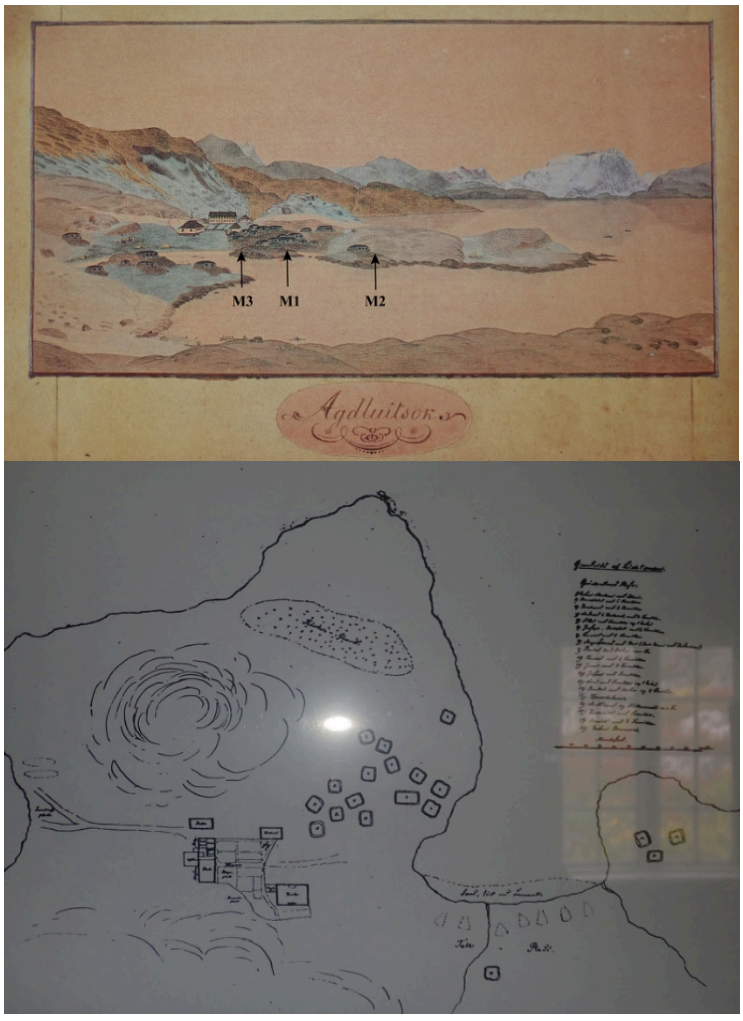

Figure 3. Top: Mid-1840's watercolor of Alluitsoq by Samuel Kleinschmidt with locations of midden 1 (M1), midden 2 (M2), and midden 3 (M3). Bottom: Jakob Arøe's 1836 map of Alluitsoq with mission buildings, Inuit houses, and tent foundations.

Climate change is a threat to the archaeological record. Globally, coastal sites are undergoing rapid loss (Anderson et al. 2017). In the Arctic, this loss is compounded by rising soil temperatures wherein organic remains were once well preserved (Hollesen et al. 2015, 2016; Madsen 2015). Climate change currently threatens to destroy Alluitsoq's promising archaeological record, as increasingly severe storms wipe out major portions of the site in single events. This endangered mission represents a rare opportunity to study

archaeologically the emergence of a national Indigenous ethnic consciousness and the formalization of a political social group (Dahl 1988), and Greenlandic negotiations of globalizing processes generally. Ethnogenesis is expected to be observable through foodways in preserved faunal remains, the indigenization of European culinary tools and foods, ethnohistoric records, and descendant oral histories. This project will contribute to a fresh understanding of Inuit political history and to the dialogue of Greenlanders who are working through questions of sovereignty (Gad 2014) and must, in some contexts, defend the authenticity of their Greenlandic identity. The excavations reported here have recovered the first collections that will provide the material analytics and entry points to these conversations. In all, this fieldwork supports junior scholars who are investigating: 1) The role of foodway persistence and foodway change in ethnic and political identity formation in colonial South Greenland (Turley); 2) How adoption of new technologies entangles people, things, and global economies and politics to afford new actions in a dynamic culture (Bendtsen); 3) The Noorliit Moravian Mission (Neu Herrnhut, Nuuk), with comparatives from Alluitsoq and Canadian missions to compare mixed Inuit cultural traditions at mission contact zones (Møller); and 4) People's changing relationships with the environment as seen in shifting subsistence patterns while interacting with imperial networks (Coleman).

EXCAVATION RESULTS

A 2017 survey of erosion faces paired with subsurface testing using a soil probe identified three eroding midden deposits along the coastline to the southeast of the primary cluster of mission building and houses. As outlined in the fieldwork permit middens M1, M2, and M3 (Figure 4), were the primary targets for both stability assessment and erosion impact mitigation through excavation. Before beginning excavations, this same area was reassessed using the same methods as previously reported. Erosion face inspection showed some loss of archaeological deposits at M1 and M2, perhaps 5-10 horizontal centimeters, while M3 showed no apparent change since 2017. For middens facing the fjord, is appears that high seas during storms continually undercut the deposits, which then slump off onto the boulders below. This process is most

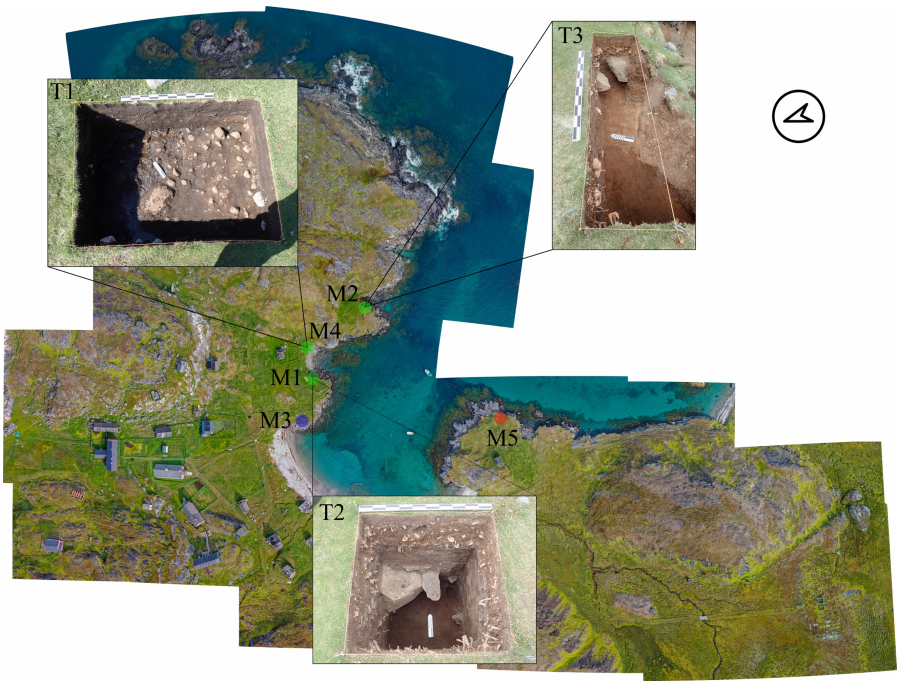

Figure 4: Aerial mosaic of Alluitsoq showing locations of identified middens and trenches excavated in 2019. Excavation units were established in M1, M2, and M4. M3 appears to have remained stable since 2017. Survey at the end of the season identified M5.

dramatically visible at Midden 2 (Figure 5), but it was noted elsewhere along the shoreline. A very large chunk of earth on the southern peninsular coast between M1 and M3 has separated from bank, sitting precariously perched on top of a large boulder. This separated chunk of land very clearly contains 1-1.5 meters of well-stratified, very dense midden deposits, but was far too dangerous to attempt systematic recovery. Soil probing where it once connected to the mainland identified no remaining midden material for recovery. This massive loss underscores the urgency of mitigation efforts. Probing in an area that slopes gently to the waterline identified M4. Site resident Mr. Hansen confirmed this area is eroding, though more slowly than the less protected middens. Historic maps and paintings agree with Mr. Hansen's assessment.

Figure 5: Like other deposits at the site, Midden 2 is falling into the fjord.

The crew selected M1 (Trench 2), M2 (Trench 3), and M4 (Trench 1) as the most feasible for excavation and counted them as the most critically endangered deposits identified at the time. These three units comprised a total sample of $5m^2$, one-third of the $15m^2$ approved for permit No. 2019/04. Note that midden number designation is maintained in this report allow for more convenient reference to records from the previous season, though they do not jive with trench number designation. These will be normalized for a more coherent final report after the project's ultimate completion. The following paragraphs provide brief narrative summaries of each trench. Complete context information is provided in the tables found in Appendix A.

Trench 1: Trench 1 (T1) was a 2 x 1.5m unit excavated in the sloping area where Midden 4 was identified (Figure 6). Sediments here were generally quite wet, owing to the immediate area draining into this small saddle. Excavation identified seven discrete contexts spanning the first half of the 20th-century to an as-yet undetermined earliest date, though 19th century is the most probably based on initial impressions of the artifact assemblages.

Contexts 001-003 contained large assemblages of faunal remains, various seal species making up the majority of the sample, with a smaller proportion of birds and fish. Artifacts from 001-003 show 20th-century hallmarks. For example, nails are exclusively machine-made wire nails (invented in the mid-19th century, but not ubiquitous in most world areas until the 20th century) and brass cartridge elements for both shotguns and rifles, which were readily available in Greenland after 1907. Context 004 is similar to these in most regards, though it contains square nails instead of wire and gun flints instead of cartridge brass, suggesting a 19th century deposit. Contexts 005 and 006 are a thin sandy matrix and a vegetation-dense deposit, respectively. Though they do contain anthropogenic assemblages, these likely represent general disuse of the area as a

midden with only occasional dumping events or washed in material, giving vegetation a chance to grow and be covered with sand. Context 007, sitting mostly below the water table, was a thick and very dense deposit of faunal remains with square forged nails, gunflints, large beads, and a clay pipe stem fragment, all suggestive of 19th century or earlier use. Additionally, context 007 contained a great deal of preserved seal fur indicating processing of hides. While fur was recovered from other contexts throughout the site, the density observed here was far in excesses of the other deposits. Context 008 was composed exclusively of beach cobbles and sand, just like the beach a few meters to the south of the unit, and exploratory probing found no cultural remains.

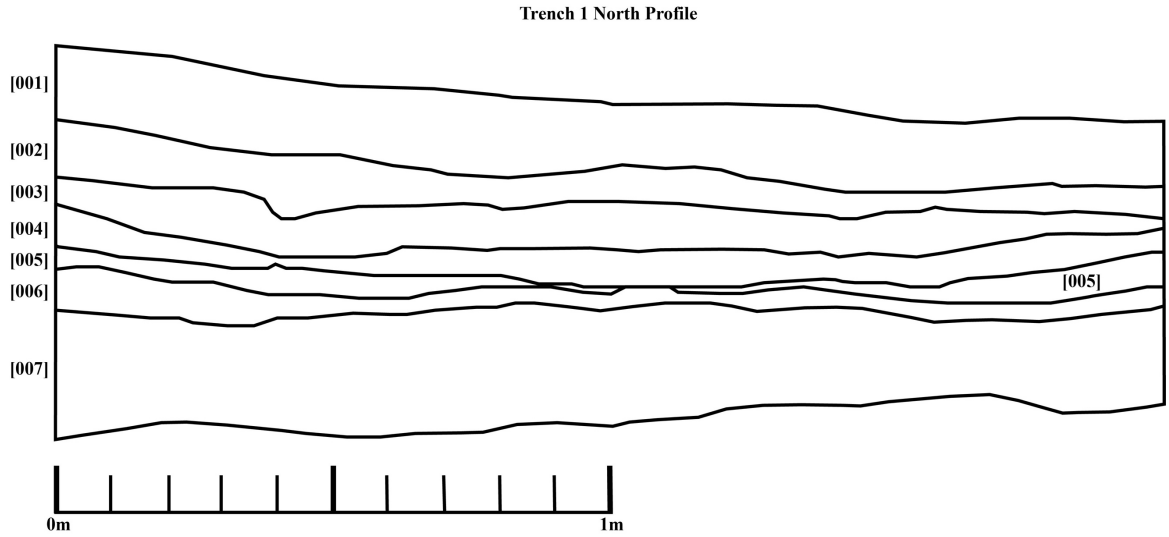

Figure 6: Section drawing from Trench 1.

Trench 2: Trench 2 was a 1 x 1m unit excavated in Midden 1, situated on a cliff above Alluitsoq's bay. In addition to the immediate need for mitigation owing to rapid erosion, this area was selected for excavation because it is seemingly associated with ruins that are directly tied to two of our ethnographic informants, their parents, and their grandparents (qualitative analysis of the ethnographic data is ongoing). Of course, this does not necessitate this particular family was exclusively responsible for the deposits here. A total of 14 discrete contexts were recorded during the unit's excavation (Figure 7).

Trench 2 contexts 001-004 are similar in character to contexts Trench 1 contexts 001-004. Initial artifact inspection suggests temporal assignments to the first half of the 20th century, possibly into the late 20th century. These artifacts include ceramics, relatively small beads, machine cut wire nails, clear window glass, and .22 short cartridge casings. The faunal assemblage from these contexts is dominated by seal, with birds and fish making up a smaller portion of the collection. Context 005 was a grey, somewhat ashy-textured deposit. There are two likely interpretations for this deposit. It is either a significant but temporary uptick on mussel consumption, the grey matrix formed by degradation of the mussels' CaCO3 shells (some "mussel skins" were noted), or a seaweed burning activity to extract salt (very small, ~10mm mussel shells, as are often attached to seaweed, were noted in the matrix). Below this, context 006 returned to a more typical bone-dense midden deposit of primarily seal remains. Interestingly, context 006 also contained dog remains, with an MNI of two based on the presence of two left-side ulnas. Context 007 was a thin, sandy lens with a low density of cultural materials. This is most probably a natural deposit following a period of disuse, the recovered bones and artifacts better assigned to the context

above. Context 008 was a low to moderate density midden, which also included a very high density of birch twigs. These twigs could indicate either brush clearing to improve pasturage for livestock, or a period of disuse after which the deposition of 008's matrix buried and preserved in-situ growth. Context 009 was a thin, low-density midden deposit. Initial impressions from the few artifacts suggest 19th century deposition, but this remains unconfirmed.

The general character of the unit began to change rather dramatically after context 009. Context 010 was a mixed deposit of low-density midden with frequent charcoal inclusions, patches of turf, and two large stones. Taken together, the turf patches and stones could indicate a wall collapse onto a household midden. Some of the charcoal comes from birch twigs, which are slated for radiocarbon dating in the coming months of 2020. Below this, context 011 contained very low-density, charcoal rich midden-like materials. Context 012 represented a possible natural field accumulation of lensed and laminated sediments clearly distinguishable in the trench sections. However, it is not sterile of cultural materials. Find #112, a carved wood spoon-like object is from this context. Recovered flints are not gun flints, better resembling strike-a-lights often recovered from the region's Norse sites. Context 013 was a compact dark brown/black sandy silt with very frequent charcoal flecks and charcoal staining, burned bone fragments, birch twigs, small gravels and stones. Probable interpretations are the deposition of midden material as pasture improving fertilizer, or it was simply washed into the area. Finally, context 014 was a very thin charcoal/carbon-rich layer (~1-3mm) over very compact light brown sand characteristic of the natural substrate seen in erosion profiles and in other trenches. This is potentially a Norse Landnám event overlaying natural sand deposit, which should be confirmed or refuted by radiocarbon testing later in 2020.

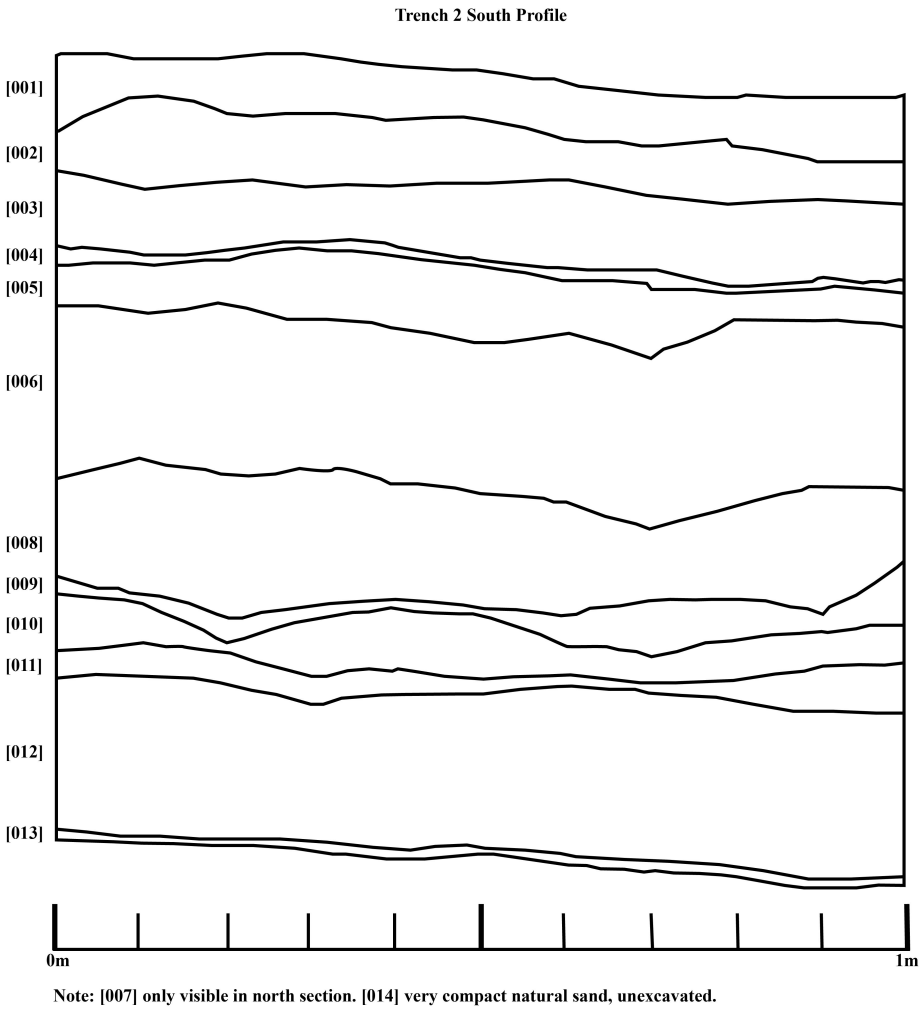

Figure 7: Section drawing from Trench 2.

Trench 3: Trench 3 was a 2 x 0.5m unit excavated parallel to Midden 2's erosion face. A total of 7 contexts were identified, which includes the natural sand substrate (Figure 8). Once again, contexts 001-003 are similar in character to the later deposits from the previously described trenches, containing large, dense faunal assemblages, primary of seal, and artifacts most typical of early 20th century historic sites. One anomaly relative to the other trenches was the presence of saw-cut sheep bones in context 002, though these numbered in the single digits (the collection is still undergoing analysis, and more might be identified here and in other trenches). Context 004 was a brown and grey mottled silty sand with a very low density of midden materials. The heavy mottling suggests 004 is in secondary context. The clay tobacco pipe stem (Find 243) from bottom of layer is likely associated with 005, from which more clay pipe fragments were recovered. Trench 3's context five has unique characteristics relative to all other deposits recorded this season. Here, the midden deposit exhibited very soft, degrading bone. While other trenches had a couple of clay pipe fragments, they were especially numerous here, strongly suggesting 19th century or earlier use, particularly when paired with other artifacts like the larger diameter beads. Context 006 is the earliest cultural deposit in Trench 3, and, again, has some features that are thus far unique. The deposit contained numerous mussel shell "skins" and frequent lensing of oily (in contrast to the drier, ashier feel in T2 005), degraded CaCO3 from mussel shells. The pre-20th century midden deposit of 006 is notable in that it contains a much higher proportion of fish bones than seen in any other context at the site, as well as a possible sheep remains. Finally, context 007 was a very compact, yellow sand with mottles of orange, brown, and grey that is either a transition/interface between the ubiquitous natural sand, or spoil from construction of the nearby ruined turf house.

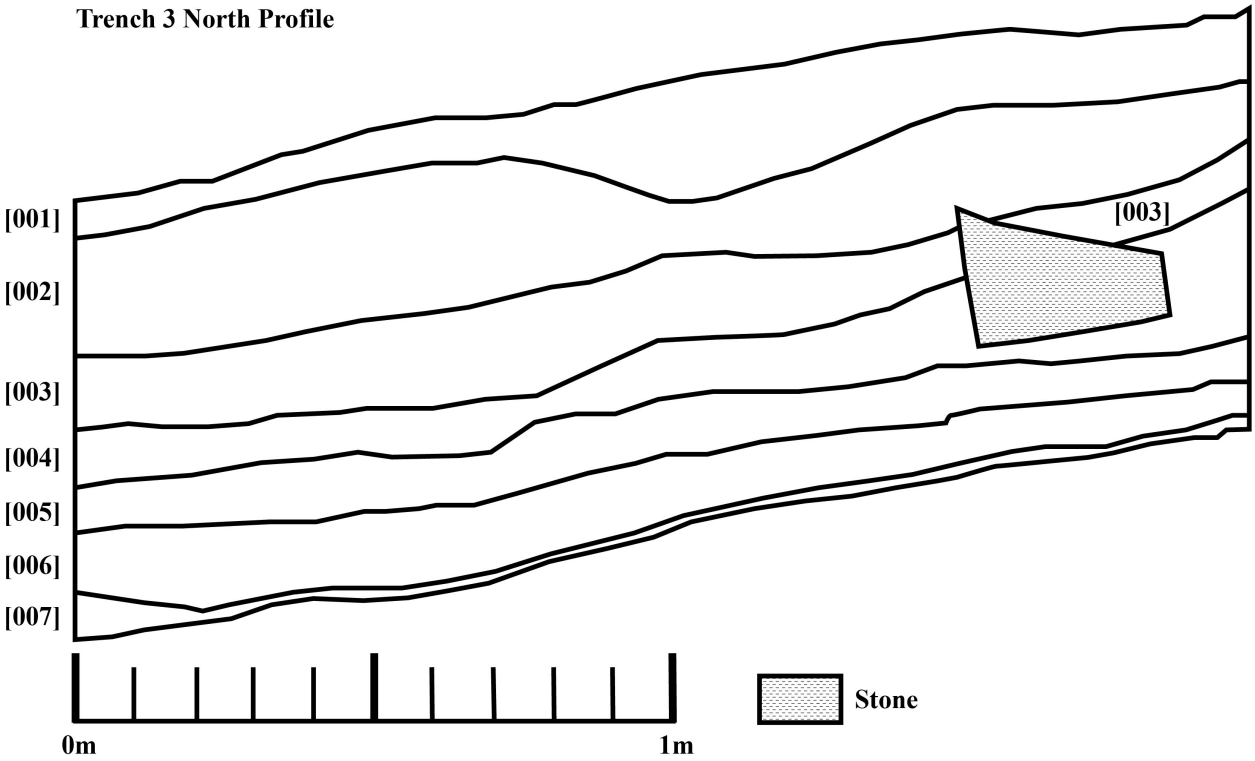

Figure 8: Section drawing from Trench 3.

Each of the three trenches was backfilled after reaching the sterile substrate and finishing final photography and sections drawing (Figure 9). Trenches 1 and 2 were filled with the spoil that was removed during excavation and topped with turf blocks that were cut and removed when the units were opened. Trench 3 was excavated into the erosion face, requiring a more creative approach to protect the exposed and vulnerable remnants of the midden as simple dirt fill would quickly wash away. Prior experience with sand-filled burlap mesh sandbags on erosion faces in Iceland suggested this method might also be inadequate. Ultimately, the crew created a sloping turf wall with blocks cut from chunks of earth that had separated from the shoreline. This wall was staked in place using split scrap wood, then filled in with spoil between the wall and the trench's north profile. As with the other trenches, turf blocks were then replaced on top and staked in an attempt to prevent them slipping off before root systems can take hold again. A mesh facing was pegged to the trench's north profile as a last line of defense should the wall fail. In upcoming seasons, jute mesh erosion control mats that are cheap, natural, and flexible will be used to help slow erosion on more of the coastline, at least until mitigation efforts are completed.

Figure 9. Trenches 1 and 2 were backfilled as normal (Left and Center). Trench 3 has a turf-built retaining wall facing the fjord to help control erosion of the remaining midden deposit (Right).

SURVEY RESULTS

Following completion of excavation and recording of the middens, the crew performed an aerial drone survey using a DJI Mavic II Pro to produce high-resolution mosaic images of the site. The results of this first effort produced the aerial mosaics used throughout this report. Images were processed using Adobe Lightroom Classic. Distortion in the photographs is uncorrected because, at the time of this writing, Adobe has not built the camera profile corrections for the Mavic II Pro's Hasselblad camera. Adobe publishes updates camera profiles on a regular basis, so corrections should be available soon for the production of orthomosaic maps. The intent is to produce a new mosaic each season, georeferencing these images each time to produce an image of the scale and pace of coastal erosion. Those data are potentially useful for informing mitigation strategies here at Alluitsoq and elsewhere in the region where coastal cultural heritage is vulnerable. The drone was also used to fly transects to produce texture-mapped, 3D elevation models. Three-dimensional model results are unsatisfactory, again owing to the lack of convenient camera correction profiles at present.

Expanded erosion face inspection and subsurface coring with an Oakfield-type soil probe identified additional midden deposits in areas not surveyed in 2017. In total, the crew cored 26 locations (Figure 10). A complete list of coring results is provided in Appendix B. A .kmz file of

coring locations is available on nabohome.org or by request. Following is a general summary of these survey results.

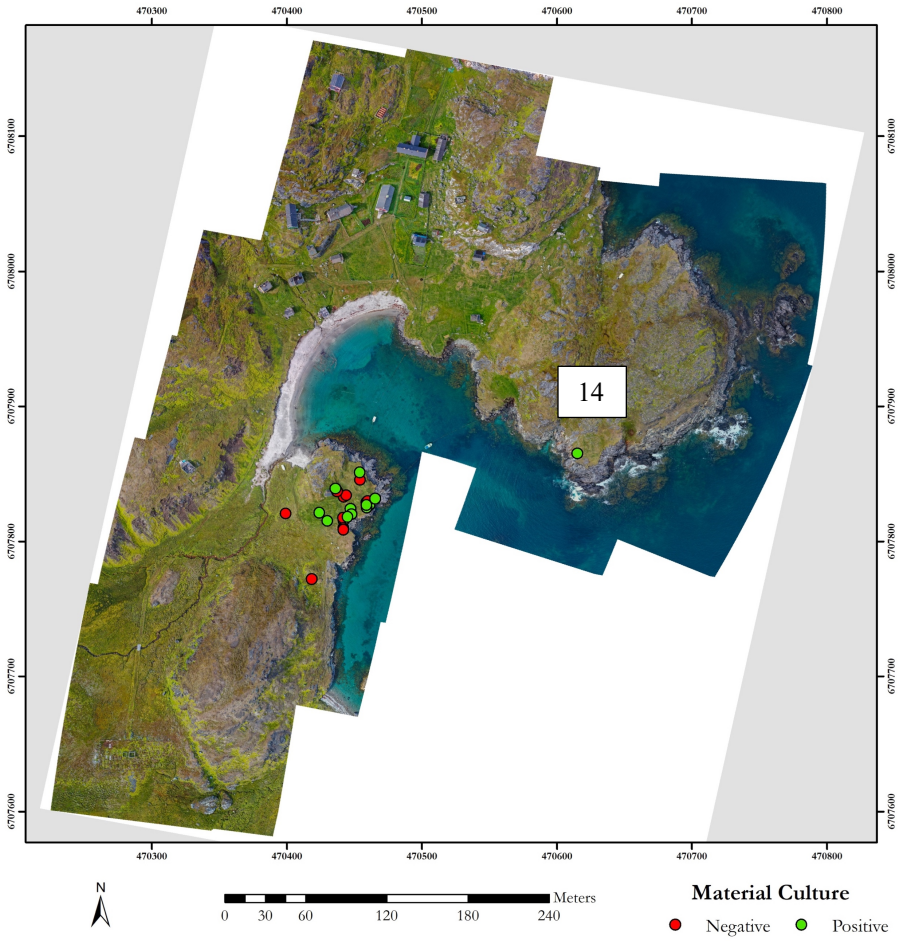

Figure 10: Aerial image showing the extent of the 2019 coring survey.

Bank inspection identified chunks of midden separated from the bank and associated with the remains of a Thule house. One core (#14) was attempted but was of negligible depth as the middens is almost entirely lost with only a very thin layer of sediments remaining atop bedrock. The majority of the survey and midden exploration was focused on the concentration of house and garden wall ruins on the southern side of the bay (Figure 11). Cores #12, #19, and #25 were positive, though with extremely thin cultural deposits. Owing to time constraints and their efforts were made to further delineate these potential middens. However, more subsurface exploration of those areas is planned for future seasons. Bank inspection identified two major midden deposits, one at cores #9, #16, and #17, and a second at cores #3, #4, #5, #6, #8, and #15. The first has almost completely eroded onto the bay and onto the rocks below, spilling assemblages of historic period materials. There is some promise for small 1 x 1m units at cores #9 and #16. The second cluster of cores identified what appears a mostly intact midden or series of middens that retain stratified deposits up to about 35cm thick and covers a horizontal area of perhaps 25m^2. While this second midden does not appear to be in imminent danger of loss over the next several years, like all coastal archaeology in the region, its long-term survival is suspect at best. With its moderately deep stratigraphy and relatively large horizontal area, this location is a prime candidate for rescue excavations that would results in significant collections and datasets.

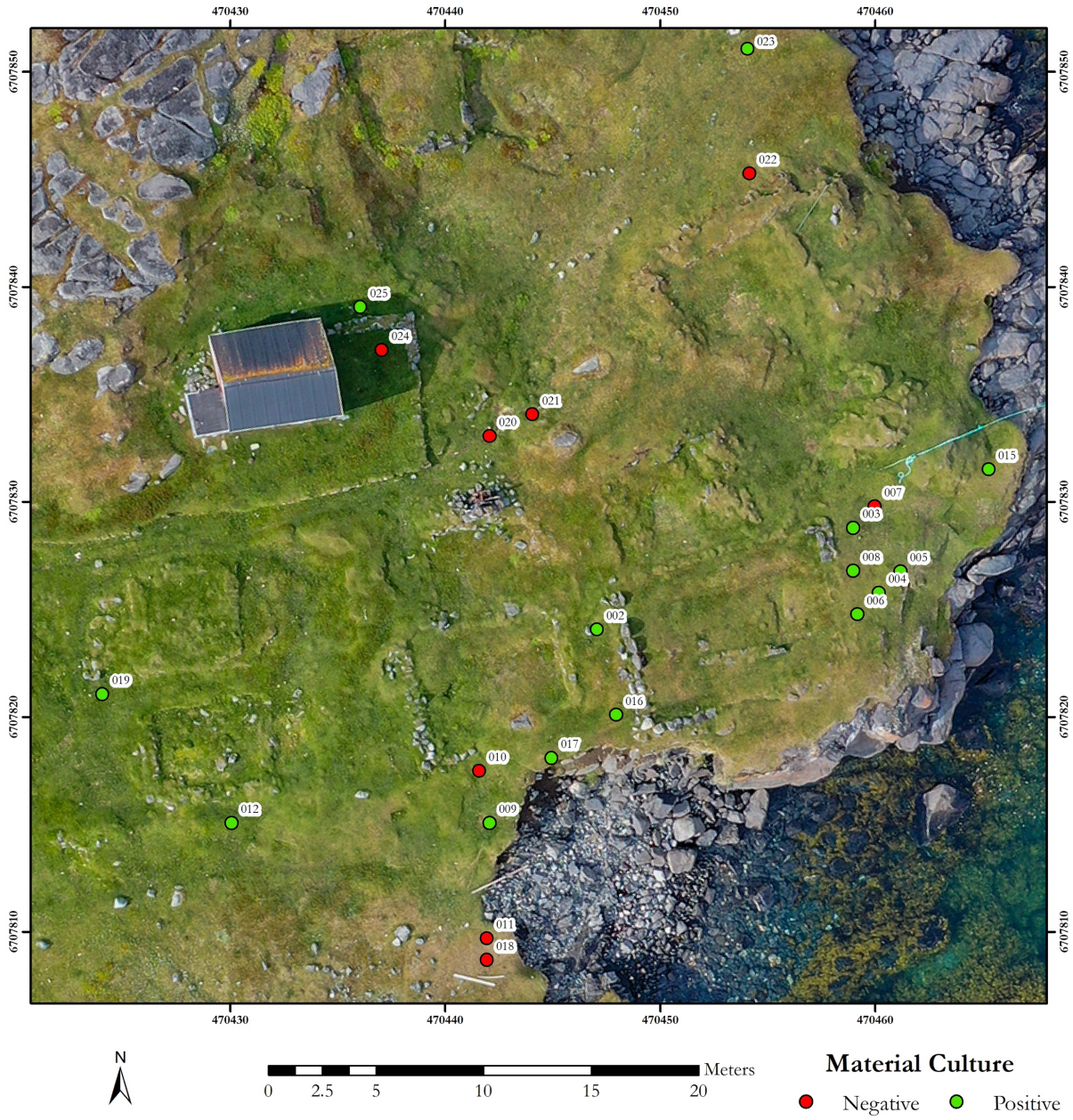

Figure 11. Cluster of coring results on the south side of the bay where Midden 5 was identified.

ARCHAEOLOGICAL MATERIALS REPORT

Summer 2019 excavations in the three eroding middens recovered more than 4,000 artifacts (Figure 12; Appendix C), approximately 250kg of animal bones (Appendix D), 59 organic residue samples for gas chromatography-mass spectrometry identification of lipids (including modern comparative samples), and 22 charcoal samples as potential candidates for radiocarbon sampling. As of this writing, the archaeological materials are housed, undergoing analysis, and receiving basic conservation treatment at various CUNY campuses and with an independent archaeological conservation contractor (formerly of the Metropolitan Museum of Art). As outlined in the approved permit application, destructive sampling of some artifacts is required for organic residue

analysis. This is a simple procedure in which 1-2 grams of material is drilled from an artifact with a Dremel tool, or, in a significantly less invasive technique, food crusts are scraped from the surface. As of this writing, twelve finds were drilled for sample collection (Appendix E) and more are expected as promising specimens are identified.

Figure 12. A small sample of recovered artifacts. From left to right: Textiles, gunflints, ulus, glass beads.

More results were expected at this point, but two circumstances are causing delays: 1) The director of the Queens College, CUNY Biochemical Archaeology Laboratory (Turley's organic residue analysis mentor) has taken a new position at Université Laval, Quebec and is in the process of moving the laboratory, which is expected to reopen there by Fall 2020; and 2) The novel coronavirus (SARS-CoV-2) pandemic in 2020, particularly in the United States, has necessitated a complete halt to all non-essential work. The timeframe in which to expect a resumption of analyses and repatriation of these materials is, of course, contingent abatement of this pandemic.

Figure 13: Caitlyn Breen discovering the polar bear claw in Trench 2.

Despite this halt, some interesting finds have emerged from the small portion of the zooarchaeological collection so far analyzed by Wendi K. Coleman (CUNY). Historic/colonial period Greenlandic deposits in Trench 2 contain two dog ulnas, a cow tooth, saw-cut sheep bones, what appears to be a saw-cut pig bone, and impressive polar bear claws (Figure 13). Presence of these bones contradicts many European accounts of Inuit being denied access to such foods during this period, and jives perfectly well with the results of Turley and Bendtsen's ethnographic fieldwork in which Alluitsoq's descendants spoke of themselves and their predecessors consuming European livestock at Alluitsoq. This discrepancy could be a general problem with European-produced historical narratives, a simple difference between Moravian and other colonial presences, or a combination of the two. The team is very excited for upcoming work that will pair the results of lipid analyses with these first zooarchaeological results.

Conservation efforts are on hold during the pandemic, but materials should remain stable until work can resume. Faunal materials are presently stored at Hunter College, CUNY in NYC. The collection has been unpacked, dry-brushed clean, and, for those coming from water-logged contexts, gently cleaned with an alcohol and water solution to prevent mold growth. The artifact collection at Brooklyn College, CUNY has also been made as stable as possible. Organic artifacts, particularly wood, textiles, and bone tools, and metals are the most at-risk classes represented in the assemblage, even with their excellent preservation condition. Organics are currently stored

refrigerated and damp, mirroring as closely as possible their original depositional environment. Metals are stored in sealed containers packed with silica gel to inhibit further corrosion. Metals and porous artifacts will likely require some desalination given the coastal context. Turley was scheduled to begin testing for salination, and, where necessary and not requiring a specialist (e.g., ceramic sherds), beginning the desalination process with his Brooklyn College archaeology students. Once again, school closures have postponed that work. Conservation requiring our specialist is scheduled for post-shutdown. Some of these items include textiles, fragile wood artifacts, and ulus.

COMMUNITY OUTREACH

Community outreach and public engagement were key components of this year's fieldwork. We deployed two strategies of engagement: 1) Word-of-mouth brought visitors to the site (both local and foreign), who were greeted with site tours, hands-on looks at recent and interesting finds, and coffee and snacks (Figure 14). These visits were also an invaluable opportunity for local stakeholders to share with the crew their knowledge of life at Alluitsoq and the mission's general history, their knowledge of interesting artifacts, broader knowledge of the surrounding environs, and also their suggestions for future work at Alluitsoq and the wider region. All told, we hosted several dozen visitors arriving as individuals or small families to Blue Ice Explorer flotillas of passengers. 2) Pivinnguaq Mørch gave a series of interviews with Kalaallit Nunaata Radioa (KNR) in which he spoke about archaeological excavations in Greenland generally, the excavation at Alluitsoq specifically, and the experience of doing archaeological work as a student. These KNR interviews were also an opportunity to invite broad swaths of the Southern community to come see us at the site, resulting in more visitor traffic.

The goal of this outreach and engagement is more than simply showing people what we're doing at their site or to generate positive PR. It is our hope this relationship building will combine the concerns, desires, and recommendations of the local community with the recent UNESCO BRIDGES project endorsement as leverage to fund not just Alluitsoq's needs, but future projects designed by, for, and with the community.

Figure 14. Top: Co-director Aká Bendtsen and Alluitsoq resident Kristian Hansen discussing the season's finds. Bottom: Visitors from Qaqortoq and Alluitsup Paa.

CONCLUSIONS

The 2019 excavation season at Alluitsoq/Lichtenau was highly successful in: 1) recovering significant collections from three endangered middens, identifying additional middens, and informing strategies and priorities for following seasons; 2) Recovering collection for the four graduate students this project support in full or in part; 3) Recovering collections that will contribute more broadly to local and regional studies on long-term climate change adaptations and cultural contact; and 4) Has introduced the project to local stakeholders, laying a foundation on which to adjust current and build new collaborative projects with the community and Greenlandic students.

While analysis of recovered archaeological collections still has many months to go, particularly in light of pandemic, they are expected to produce a wealth of new information on mission life in Colonial South Greenland. Additional fieldwork was planned for summer 2020. However, owing to the pandemic, a stop-order from the US Department of Defense (which shuts down our logistics apparatus), and concerns of importing the virus from the US if work resumes too early, the next field season is postponed to summer 2021. Thus, Turley did not submit an exaction permit application for work in 2020. Anticipated future fieldwork at Alluitsoq includes: 1) Revisiting middens sampled in 2019 for further mitigation; 2) Excavation in the newly discovered Midden 5 on the south side of the bay; 3) expanding survey including drone mapping and additional coring; and 4) and expanded public outreach, engagement, and education toward a community-based, collaborative practice. Upcoming fieldwork is funded by the United States' National Science Foundation Doctoral Dissertation Research Grant #1824755 (Co-PI Turley) and National Science Foundation Grant #1821284 (PI McGovern). These grants are extended due to the novel coronavirus pandemic, so the funds and logistical support will remain available. This fieldwork report will be archived at nabohome.org to encourage easy access by local stakeholders.

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APPENDIX A: Context Descriptions

Trench 1			
Context	Description	Disturbances	Interpretation
[001]	Loose, brown, sandy silt loam. Small gravel inclusions.	Bioturbation	Topsoil and turf layer with 20th century artifacts.
[002]	Loose, dark yellowish-brown silty sand with occasional small gravels.	Bioturbation	Interface layer with topsoil and most recent 20th century midden deposit [003].
[003]	Moderately compact, mottled dark gray/dark brown silty sand with gravels up to ~15cm	Bioturbation, possible trampling.	Moderate density midden. Early 20th century (machine-made wire nails, shotgun and rifle cartridges).
[004]	Compact, mottled, dark brown silty sand with gravels up to ~15cm. Ash or CaCO3 and hay or grass lensing in the deposit.	Light bioturbation, possible trampling.	Dense midden deposit, likely early 20th or late 19th century. Artifact assemblage similar to [003].
[005]	Loose, grayish brown sand with small gravels.	Unknown	Thin layer of well-sorted sand. Natural deposit following disuse or very minimal use of area as a midden.
[006]	Extremely compact, laminated layers of grass or hay and sand. Small gravels and stones up to 10cm.	Unknown	This is likely dense surface vegetation fertilized by the rich [007] deposit, that was buried by the [005] accumulation event.
[007]	Loose, greasy, silty sand with very dark brown with reddish and black mottles. Gravels, fire-cracked rock, grass or hay, and numerous lenses and clumps of preserved seal fur. Waterlogged.	Unknown	Extremely dense midden deposit of mostly seal bones. Frequent occurrence of preserved seal fur suggests processing as well as consumption waste. Numerous gunflints, large glass beads, and nail types suggest 19th century or earlier use.
[008]	Compact yellow sand with frequent large gravels and cobbles.	Erosion.	Natural beach deposit.

Trench 2			
Context	Description	Disturbances	Interpretation
[001]	Medium brown sandy silt with small pebble inclusions, very frequent root.	Bioturbation, trampling.	Turf/topsoil
[002]	Medium yellowish-brown silty sand, very loose, small gravels.	Bioturbation, trampling.	Turfy interface between topsoil and underlying midden/Early 20th century midden dense artifacts, faunal remains.
[003]	Medium brown and grey mottled silty sand, frequent roots, small gravels.	Bioturbation, trampling.	Early 20th century midden, high density of faunal remains and artifacts.
[004]	Loose, very dark brown to black silty sand, occasional roots, gravels, and stones.	Mild bioturbation.	Bone dense midden deposit, relatively few artifacts.
[005]	Loose silty sand, light grey mottled with brown. Few stones up to 15cm, occasional roots, seal fur.	Mild bioturbation.	Existed only in the north ~50% of the trench. Grey material somewhat ashy. Small (~1cm) mussel shells, possibly attached to seaweed burned for salt, or is degraded CaCO3 from a short-lived shell midden deposit (mussel shell "skins" noted during excavation).
[006]	Loose brown silty sand. Inclusions of small gravels, fur, white concretions (CaCO3), occasional roots.	Slumping to north.	Bone dense midden left ulnas from two dogs identified. Artifacts suggest mid-late-19th century.
[007]	Compact, mottled dark brown, yellowish brown, and grey sand. Inclusions of twigs and gravel.	Possible erosion.	Sandy interface, north 2/3 of trench. Possible natural deposit during a period of midden disuse, or anthropogenic sand deposit to cover exposed midden materials. The few bones and artifacts likely associated the contexts above/below.

[008]	Loose silty sand, dark brown with orange mottling. Very frequent birch twigs, occasional small gravels and fur.	Unknown	Moderately dense midden. Frequency of twigs suggests [008] is a resumption of use of this location following a period of disuse, or cleared brush thrown in the midden. In-progress artifacts analyses and context comparisons should clarify.
[009]	Firm, dark brown silty sand with black patches. Inclusions of small gravel, twigs, fur, and charcoal.	Unknown	Low density midden deposit.
[010]	Firm silty sand with turfy patches, mottled light grey, brown, dark brown, black. Inclusions of twigs, mussel shell, small stones.	Collapse	Two large stones in SE corner and turf clumps mixed with the midden are suggestive of a wall collapse that became mixed with the low-density midden deposit.
[011]	Firm, dark brown to black silty sand, with loose yellowish grey sandy patches. Frequent charcoal inclusions. Small gravels and birch twigs.	Unknown	Low density midden deposit with burning at the bottom. Frequency of charcoal inclusions suggests possible Norse midden, though needs confirmation.
[012]	Firm, dark brown silty sand with black patches, sandy lensing and lamination. Inclusions of small gravel, twigs, fur, and charcoal.	Erosion.	Possible natural field accumulation as lensing and laminated sediments were more clearly distinguishable in the trench sections. However, it is not sterile of cultural materials. Find #112, the carved wood spoon-like object is from this context. Recovered flint is not a gun flint, better resembles a strike-a-light
[013]	Compact dark brown/black sandy silt with very frequent charcoal flecks and staining, burned bone fragments, birch twigs, small gravels and stones.	Unknown.	Thin, low density midden material, possibly deposited as pasture improvement/fertilizer, or simply washed into the area.
[014]	Very thin charcoal layer (~1-3mm) over very compact light brown sand (natural).	Burning.	Potentially Norse Landnám overlaying natural sand deposit.

Trench 3			
Context	Description	Disturbances	Interpretation
[001]	Loose, mid-brown silty sand, very frequent roots, shells, small gravels, bone.	Erosion, bioturbation, trampling.	Turf and topsoil established in a dense, early 20th century midden.
[002]	Loose, mid-brown silty sand, very frequent roots, shells, small gravels, bone.	Erosion, bioturbation, trampling.	Dense midden, bone and artifact rich, early 20th century. Includes saw-cut sheep bones.
[003]	Loose, brown silty sand.	Erosion, bioturbation.	Midden deposit with similar bone and artifact assemblages as [002], but less dense.
[004]	Moderately compact, brown and grey mottled silty sand. Inclusions of small gravels, wood, twigs, shell.	Mild bioturbation, erosion.	Very low-density midden deposit, possibly in secondary context based on the mottling. Clay tobacco pipe stem (Find 243) from bottom of layer is likely associated with [005].
[005]	Moderately compact, dark brown silty sand. Inclusions of fire cracked rock, gravels, shell, occasional charcoal flecks.	Erosion.	Midden deposit with very soft, degrading bone. Numerous clay tobacco pipe stem and bowl fragments suggest 19th century or earlier.
[006]	Moderately compact, dark greyish brown silty sand. Numerous mussel shell "skins" and frequent lensing of oily, degraded CaCO3 from mussel shells.	Erosion.	Pre-20th century midden deposit. Notable in that it contains a much higher proportion of fish bones than seen in any other context, as well as a possible sheep remains.
[007]	Very compact, yellow sand with mottles of orange, brown, and grey. Well-sorted with no inclusions apart from a few bones.	Erosion.	Transition/interface between natural and early midden deposits. Mottling suggest this could be spoil from construction of the associated turf house.

APPENDIX B: Core Results and Descriptions

Core #	Location (UTM 23V)	Mat. Culture	Depth (cm)	Description
001	E:0470284 N:6708743	Positive	0-8	Roots
			8-12	Sand
			12-24	LDC* w/bones, wood
			25-26	Gravel
			26-40+	Natural sand
002	E:0470437 N:6707822	Positive	0-13	Roots
			13-22	LDC w/bones, wood, charcoal
			22-29	Midden deposit
			29-32+	Sand
003	E:0470450 N:6707828	Positive	0-9	Roots
			9-22	Sand
			22-31	LDC w/bones, wood
			31	Rock
004	E:0470452 N:6707824	Positive	0-11	Roots
			11-41+	Midden w/bone, charcoal
005	E:0470453 N:6707825	Positive	0-6	Roots
			6-23	Midden w/bone, charcoal, wood
			23-25	Gravel
			25-39+	Midden
006	E:0470451 N:6707823	Positive	0-9	Roots
			9-35+	Midden deposit
007	E:0470451 N:6707829	Negative	0-9	Roots
			9-25	Sand
			25-??	Could not advance
008	E:0470450 N:6707826	Positive	0-6	Roots
			6-14	Sand
			14-31	LDC w/charcoal
			31-33	Gravel
009	E:0470432 N:6707813	Positive	0-10	Roots
			10-14	Sand
			14-25+	Midden w/bone, burned bone, charcoal
010	E:0470432 N:6707816	Negative	0-9	Roots
			9-??	Could not advance
011	E:0470426 N:6707808	Negative	0-14	Roots
			14	Rock
012	E:0470420 N:6707813	Positive	0-9	Roots
			9-24	Sand

			24-25	LDC w/bone
			25	Rock
013	E:0470399 N:6707824	Negative	0-4	Roots
			4-26	Sand
014	E:0470596 N:6707880	Positive	n/a	Midden w/ceramic, bone, wood
015	E:0470455 N:6707831	Positive	0-6	Roots
			6-25	LDC w/bone
			25-40	LDC
			40	Rock
016	E:0470440 N:6707813	Positive	0-8	Roots
			8-50	LDC w/bone, charcoal
			50-56	Soil, organics
			56-65	Sand and gravels
			65	Rock/gravels
017	E:0470437 N:6707811	Positive	0-6	Roots
			6-20	LDC w/bone
			20	Rock
018	E:0470426 N:6707807	Negative	0-7	Roots
			7-20	Sand
019	E:0470414 N:6707819	Positive	0-8	Roots
			8-35	Sand
			35-37	Asphalt shingle
			37-40	Sand
			40-42	Sand
			42-45	Sand w/organics
020	E:0470432 N:6707831	Negative	0-10	Roots
			10-20	Sand w/organics
021	E:0470434 N:6707832	Negative	0-8	Roots
			8-27	Sand w/shell
			27-28	Darker sand w/gravel
			28	Rock
022	E:0470446 N:6707842	Negative	0-5	Roots
			5-22	Sand w/gravels
			22-35	Dark, organics
			35	Rock or gravel
023	E:0470444 N:6707849	Positive	0-7	Roots
			7-20	Sand
			20-25	LDC w/bone

			25-40	Sand w/gravels
			40	Rock
024	E:0470427 N:6707835	Negative	0-7	Roots
			7-25	Sand
			25	Rock
025	E:0470426 N:6707837	Positive	0-6	Roots
			6-37	Sand
			37-39	LDC w/bones, wood
			39	Dense gravels
026	E:0470413 N:6707771	Negative	0-4	Roots
			4-12	Sand
			12	Rock

*LDC: Low Density Cultural

APPENDIX C: Artifacts/Finds Register

Find #	Context	Trench	Description	Count	Date	Initials
1	001	1	Soapstone	8	25-Jun	PM/GMC
2	001	1	Ceramic	70	25-Jun	PM/GMC
3	001	1	Metal	23	25-Jun	CT/CB
4	001	1	Glass	39	25-Jun	CT/CB
5	001	1	Textile	1	25-Jun	CT/GMC/PM
6	001	1	Beads	1	25-Jun	CT/CB
7	001	1	Whet stones	3	25-Jun	CT/AB
8	002	1	Wood	11	25-Jun	CT/GMC
9	002	1	Ceramic	243	25-Jun	CT/GMC
10	002	1	Metal	125	25-Jun	CT/GMC
11	002	1	Glass	78	25-Jun	CT/GMC
12	002	1	Soapstone	5	25-Jun	CT/GMC
13	002	1	Worked bone line lock	1	25-Jun	CT/GMC
14	002	1	Drilled stone (or whale bone?)	1	25-Jun	CT/GMC
15	002	1	Brick fragments	6	25-Jun	AB/CT
16	002	1	Plastic comb	2	25-Jun	CB
17	002	1	Igaliku Sandstone	1	25-Jun	CT/GMC
18	002	1	Beads	1	25-Jun	CB
19	002	1	Worked wood	1	25-Jun	CB
20	002	1	Pipestem (bead?)	1	25-Jun	CB
21	002	1	Weird stone? Painted	1	25-Jun	CB
22	002	1	Lithics	5	25-Jun	CT
23	002	1	Coal	4	25-Jun	GMC
24	002	1	Worked bone	1	25-Jun	GMC
25	003	1	Glass	64	25-Jun	GMC
26	003	1	Ceramic	131	25-Jun	GMC
27	003	1	Metal	77	25-Jun	GMC
28	003	1	Worked bone	2	25-Jun	CT
29	003	1	Beads	4	25-Jun	CT
30	003	1	Buttons	3	25-Jun	CT
31	003	1	Wood	18	25-Jun	CT
32	003	1	Leather	1	25-Jun	CB
33	003	1	Lithics	9	25-Jun	CT
34	003	1	Plastic	1	25-Jun	CT
35	003	1	Ceramic base	1	25-Jun	CT
36	001	1	Plastic	1	25-Jun	GMC
37	004	1	Hat pin	1	27-Jun	GMC
38	004	1	Worked wood	1	27-Jun	AB

39	003	1	Wood	14	30-Jun	PM/NB
40	003	1	Glass	19	30-Jun	PM/NB
41	003	1	Beads	1	30-Jun	PM/NB
42	003	1	Metal	19	30-Jun	PM/NB
43	003	1	Soapstone	3	30-Jun	PM/NB
44	003	1	Ceramic	74	30-Jun	PM/NB
45	003	1	Lithics	5	30-Jun	PM/NB
46	005	1	Worked wood	2	30-Jun	PM/NB
47	005	1	Metal	3	30-Jun	PM/NB
48	005	1	Soapstone	4	30-Jun	PM/NB
49	005	1	Ceramic	13	30-Jun	PM/NB
50	005	1	Wood	13	30-Jun	PM/NB
51	005	1	Glass	4	30-Jun	PM/NB
52	005	1	Textile	6	30-Jun	PM/NB
53	007	1	Soapstone	1	30-Jun	PM/NB
54	007	1	Metal	10	30-Jun	PM/NB
55	007	1	Ceramic	93	30-Jun	PM/NB
56	007	1	Wood	40	30-Jun	PM/NB
57	007	1	Worked wood	7	30-Jun	PM/NB
58	007	1	Glass	10	30-Jun	PM/NB
59	007	1	Lithics	5	30-Jun	PM/NB
60	007	1	Textile	2	30-Jun	PM/NB
61	006	1	Metal	5	30-Jun	PM/NB
62	006	1	Textile	4	30-Jun	PM/NB
63	006	1	Worked wood	14	30-Jun	PM/NB
64	006	1	Wood	48	30-Jun	PM/NB
65	006	1	Lithics	1	30-Jun	PM/NB
66	006	1	Beads	1	30-Jun	PM/NB
67	006	1	Soapstone	4	30-Jun	PM/NB
68	006	1	Glass	7	30-Jun	PM/NB
69	006	1	Ceramic	91	30-Jun	PM/NB
70	004	1	Metal	186	30-Jun	AB/CB
71	004	1	Glass	148	30-Jun	AB/CB
72	004	1	Worked wood	23	30-Jun	AB/CB
73	004	1	Metal Pendant (woman?)	1	30-Jun	AB/CB
74	004	1	Ceramic	392	30-Jun	AB/CB
75	004	1	Wood	206	30-Jun	AB/CB
76	004	1	Soapstone	25	30-Jun	AB/CB
77	004	1	Leather	1	30-Jun	AB/CB

78	004	1	Textile	6	30-Jun	AB/CB
79	004	1	Beads	12	30-Jun	AB/CB
80	004	1	Worked teeth	3	30-Jun	AB/CB
81	004	1	Buttons	6	30-Jun	AB/CB
82	004	1	Metal with wood	1	30-Jun	AB/CB
83	004	1	Lithics	13	30-Jun	AB/CB
84	004	1	Quill nib + feather	2	30-Jun	AB/CB
85	007	1	Cooking stone	1	1-Jul	CT/AB
86	007	1	Ceramic base	1	2-Jul	CT
87	007	1	Ceramic base	1	2-Jul	CT
88	001	1	Glazed ceramic sherd	1	2-Jul	CT
89	001	1	Soapstone fragment	1	2-Jul	CT
90	007	1	Comb (wood)	1	2-Jul	PM
91	007	1	Weird thing	-	2-Jul	CT
92	007	1	Worked wood	55	5-Jul	CB/PM
93	007	1	Soapstone	25	5-Jul	CB/PM
94	007	1	Ceramic	214	5-Jul	CB/PM
95	007	1	Cooking stone	10	5-Jul	CB/PM
96	007	1	Metal	13	5-Jul	CB/PM
97	007	1	Lithics	24	5-Jul	CB/PM
98	007	1	Glass	39	5-Jul	CB/PM
99	007	1	Wood spool (?)	1	5-Jul	CB/PM
100	007	1	Flint	2	5-Jul	CB/PM
101	007	1	Leather	10	5-Jul	CB/PM
102	007	1	Beads	8	5-Jul	CB/PM
103	007	1	Worked bone	1	5-Jul	CB/PM
104	007	1	Button	1	5-Jul	CB/PM
105	007	1	Igaliku Sandstone	1	5-Jul	CB/PM
106	007	1	Bark	6	5-Jul	CB/PM
107	007	1	Wood	115	5-Jul	CB/PM
108	004	2	Cup base	1	6-Jul	CT
109	008	2	Ceramic	1	8-Jul	GMC
110	008	2	Ceramic	1	8-Jul	CB/CT
111	010	2	Ceramic	4	9-Jul	GMC/CT
112	012	2	Wooden spoon (?)	1	10-Jul	GMC
113	007	1	Soapstone w/food crust	1	2-Jul	CT/GMC
114	007	1	Ceramic base or lid	1	2-Jul	CT/GMC
115	007	1	Glass	11	2-Jul	CT/GMC
116	007	1	Beads	1.5	2-Jul	CT/GMC

117	007	1	Textile	1	2-Jul	CT/GMC
118	007	1	Cooking stone	5	2-Jul	CT/GMC
119	007	1	Ceramic	56	2-Jul	CT/GMC
120	007	1	Metal	6	2-Jul	CT/GMC
121	007	1	Wood toggle	1	2-Jul	CT/GMC
122	007	1	Worked wood thing	1	2-Jul	CT/GMC
123	007	1	Worked wood	78	2-Jul	CT/GMC
124	007	1	Wood	75	2-Jul	CT/GMC
125	004	2	Ceramic w/makers mark = <126>	1	6-Jul	CT/GMC
126	005	2	Ceramic sherd = <125>	1	7-Jul	CT/GMC
127	001	2	Glass	2	5-Jul	CT/GMC
128	001	2	Soapstone objects	2	5-Jul	CT/GMC
129	001	2	Cooking stone	2	5-Jul	CT/GMC
130	001	2	Ceramic rim/shoulder	2	5-Jul	CT/GMC
131	001	2	Textile	2	5-Jul	CT/GMC
132	001	2	Worked bone	2	5-Jul	CT/GMC
133	001	2	Ulu	1	5-Jul	CT/GMC
134	001	2	Metal	5	5-Jul	CT/GMC
135	001	2	Beads	3	5-Jul	CT/GMC
136	001	2	Cooking stone	1	5-Jul	CT/GMC
137	001	2	Ceramic plate rim	2	5-Jul	CT/GMC
138	001	2	Ceramic	15	5-Jul	CT/GMC
139	002	2	Textile	1	6-Jul	AB
140	002	2	Flint	2	6-Jul	CT/GMC
141	002	2	Whetstone fragment	1	6-Jul	CT/GMC
142	002	2	Metal	2	6-Jul	CT/GMC
143	002	2	Worked tooth	1	6-Jul	CT/GMC
144	002	2	Ceramic	20	6-Jul	CT/GMC
145	002	2	Glass	3	6-Jul	CT/GMC
146	002	2	Soapstone	1	6-Jul	CT/GMC
147	002	2	Beads	7	6-Jul	CT/GMC
148	001	2	Soapstone with food crust	2	5-Jul	CT/GMC
149	001	2	Soapstone vessel fragment	1	5-Jul	CT/GMC
150	003	2	Igaliku Sandstone	2	6-Jul	CT/GMC
151	003	2	Iron fish hook	1	6-Jul	CT/GMC
152	003	2	Textile	3	6-Jul	CT/GMC
153	003	2	Wood	2	6-Jul	CT/GMC
154	003	2	Ceramic	26	6-Jul	CT/GMC
155	003	2	Worked bone	3	6-Jul	CT/GMC

156	003	2	Metal	2	6-Jul	CT/GMC
157	003	2	Worked teeth	2	6-Jul	CT/GMC
158	003	2	Beads	20.5	6-Jul	CT/GMC
159	003	2	Cooking stone	2	6-Jul	CT/GMC
160	003	2	Worked wood	2	6-Jul	CT/GMC
161	003	2	Hair bundle	1	6-Jul	CT/GMC
162	003	2	Lithics	1	6-Jul	CT/GMC
163	003	2	Soapstone objects	2	6-Jul	CT/GMC
164	003	2	Glass	2	6-Jul	CT/GMC
165	004	2	Worked bone	3	6-Jul	CT/GMC
166	004	2	Ulu w/wood handle	1	6-Jul	CT/GMC
167	004	2	Metal	2	6-Jul	CT/GMC
168	004	2	Glass	1	6-Jul	CT/GMC
169	004	2	Beads	2	6-Jul	CT/GMC
170	004	2	Ceramic	8	6-Jul	CT/GMC
171	004	2	Worked wood	1	6-Jul	CT/GMC
172	004	2	Igaliku Sandstone	16	6-Jul	CT/GMC
173	004	2	Brick	1	6-Jul	CT/GMC
174	004	2	Worked wood	1	6-Jul	CT/GMC
175	004	2	Wood	5	6-Jul	CT/GMC
176	005	2	Soapstone	2	7-Jul	CT/GMC
177	005	2	Textile	-	7-Jul	CT/GMC
178	005	2	Metal	3	7-Jul	CT/GMC
179	005	2	Ceramic	10	7-Jul	CT/GMC
180	005	2	Worked bone	2	7-Jul	CT/GMC
181	005	2	Worked wood	7	7-Jul	CT/GMC
182	005	2	Ceramic	3	7-Jul	CT/GMC
183	005	2	Beads	2	7-Jul	CT/GMC
184	005	2	Wood	5	7-Jul	CT/GMC
185	005	2	Ceramic	1	7-Jul	CT/GMC
186	005	2	Ceramic rim	1	7-Jul	CT/GMC
187	006	2	Worked wood	6	8-Jul	CB/CT
188	006	2	Leather	1	8-Jul	CB/CT
189	006	2	Beads	4	8-Jul	CB/CT
190	006	2	Lithics	2	8-Jul	CB/CT
191	006	2	Button	1	8-Jul	CB/CT
192	006	2	Soapstone	5	8-Jul	CB/CT
193	006	2	Glass	4	8-Jul	CB/CT
194	006	2	Bone needle	1	8-Jul	CB/CT

195	006	2	Textile	1	8-Jul	CB/CT
196	006	2	Wood	12	8-Jul	CB/CT
197	006	2	Bundled fibers	1	8-Jul	CB/CT
198	006	2	Coin	1	8-Jul	CB/CT
199	006	2	Ceramic	12	8-Jul	CB/CT
200	006	2	Worked bone	3	8-Jul	CB/CT
201	006	2	Metal	2	8-Jul	CB/CT
202	006	2	Textile	-	8-Jul	CT/CB
203	007	2	Wood	5	8-Jul	CT/CB
204	007	2	Handle with metal	1	8-Jul	CT/CB
205	007	2	Lithics	3	8-Jul	CT/CB
206	007	2	Igaliku Sandstone	1	8-Jul	CT/CB
207	007	2	Glass	2	8-Jul	CT/CB
208	007	2	Beads	1	8-Jul	CT/CB
209	007	2	Textile	3	8-Jul	CT/CB
210	007	2	Soapstone	1	8-Jul	CT/CB
211	007	2	Metal	3	8-Jul	CT/CB
212	008	2	metal	2	8-Jul	CT/CB
213	008	2	Wood	9	8-Jul	CT/CB
214	008	2	Igaliku Sandstone	2	8-Jul	CT/CB
215	008	2	Ceramic	2	8-Jul	CT/CB
216	008	2	Textile	1	8-Jul	CT/CB
217	008	2	Worked wood	1	8-Jul	CT/CB
218	008	2	Glass	1	8-Jul	CT/CB
219	008	2	Cooking stone	1	8-Jul	CT/CB
220	008	2	Beads	1	8-Jul	CT/CB
221	009	2	Cooking stone	1	9-Jul	CT/CB
222	009	2	Wood	7	9-Jul	CT/CB
223	009	2	Leather	3	9-Jul	CT/CB
224	009	2	Ceramic	4	9-Jul	CT/CB
225	009	2	Glass	3	9-Jul	CT/CB
226	010	2	Wood	13	9-Jul	CT/CB
227	010	2	Igaliku Sandstone	1	9-Jul	CT/CB
228	010	2	Ceramic	1	9-Jul	CT/CB
229	011	2	Wood	5	9-Jul	CT/CB
230	011	2	Worked wood	1	9-Jul	CT/CB
231	011	2	Bark	1	9-Jul	CT/CB
232	013	2	Flint	2	10-Jul	PB/CB
233	013	2	Igaliku Sandstone	1	10-Jul	GMC

234	013	2	Iron nodules	3	10-Jul	GMC
235	012	2	Lithics	4	10-Jul	AB/PM
236	012	2	Textile	2	10-Jul	AB/PM
237	012	2	Flint + red stone chipped off	2	10-Jul	AB/PM
238	012	2	Iron	5	10-Jul	AB/PM
239	012	2	Worked bone	1	10-Jul	AB/PM
240	012	2	Beetles	2	10-Jul	AB/PM
241	012	2	Wood	3	10-Jul	PM
242	001	3	Stone vessel fragment	1	14-Jul	CT
243	004	3	Pipestem (botton [004]/top [005])	1	15-Jul	CT
244	005	3	Pipestems	5	16-Jul	CB
245	001	3	Whetstone	1	13-Jul	CB/PM
246	001	3	Textile	4	13-Jul	CB/PM
247	001	3	Worked bone	2	13-Jul	CB/PM
248	001	3	Soapstone	17	13-Jul	CB/PM
249	001	3	Metal	3	13-Jul	CB/PM
250	001	3	Igaliku Sandstone	9	13-Jul	CB/PM
251	001	3	Shot / pellet	1	13-Jul	CB/PM
252	001	3	Glass	6	13-Jul	CB/PM
253	001	3	Ceramic	7	13-Jul	CB/PM
254	001	3	Worked wood	3	13-Jul	CB/PM
255	001	3	Beads	8	13-Jul	CB/PM
256	001	3	Ceramics	44	13-Jul	CB/PM
257	001	3	Wood	15	13-Jul	CB/PM
258	002	3	Soapstone	3	15-Jul	CB/PM
259	002	3	Worked bone	2	15-Jul	CB/PM
260	002	3	Worked wood	8	15-Jul	CB/PM
261	002	3	Beads	5	15-Jul	CB/PM
262	002	3	Worked bone	1	15-Jul	CB/PM
263	002	3	Glass	3	15-Jul	CB/PM
264	002	3	Wood	18	15-Jul	CB/PM
265	002	3	Igaliku Sandstone	7	15-Jul	CB/PM
266	002	3	Wood burned	1	15-Jul	CB/PM
267	002	3	Metal	2	15-Jul	CB/PM
268	002	3	Ceramic	30	15-Jul	CB/PM
269	003	3	Worked bone	2	15-Jul	CB/PM
270	003	3	Shot / pellet	1	15-Jul	CB/PM
271	003	3	Glass	1	15-Jul	CB/PM
272	003	3	Metal	1	15-Jul	CB/PM

273	003	3	Ceramics	8	15-Jul	CB/PM
274	003	3	Wood	15	15-Jul	CB/PM
275	004	3	Lithics	3	15-Jul	CB/PM
276	004	3	Glass	3	15-Jul	CB/PM
277	004	3	Ceramic	9	15-Jul	CB/PM
278	004	3	Metal	4	15-Jul	CB/PM
279	004	3	Wood	10	15-Jul	CB/PM
280	004	3	Soapstone	2	15-Jul	CB/PM
281	005	3	Soapstone	5	16-Jul	CB/PM
282	005	3	Metal	2	16-Jul	CB/PM
283	005	3	Flint	1	16-Jul	CB/PM
284	005	3	Worked wood	1	16-Jul	CB/PM
285	005	3	Glass	9	16-Jul	CB/PM
286	005	3	Textile	2	16-Jul	CB/PM
287	005	3	Beads	8	16-Jul	CB/PM
288	005	3	Wood	12	16-Jul	CB/PM
289	006	3	Worked bone	11	16-Jul	CB/PM
290	006	3	Igaliku Sandstone	4	16-Jul	CB/PM
291	006	3	Ceramic	3	16-Jul	CB/PM
292	006	3	Beads	1.5	16-Jul	CB/PM
293	006	3	Lithics	3	16-Jul	CB/PM
294	006	3	Wood	4	16-Jul	CB/PM
295	006	3	Soapstone	3	16-Jul	CB/PM
296	007	1	Ulu	1	30-Jun	PM/NB
297	007	1	Scissor handle	1	30-Jun	PM/NB/AB
298	007	1	Spear prong fish or bird	1	5-Jul	AB/CB/PM
299	007	1	Worked wood (kayak paddle tip?)	1	5-Jul	AB/CB/PM
300	007	1	???????	1	5-Jul	AB/CB/PM
301	007	1	Worked wood (bone?)	1	5-Jul	AB/CB/PM
302	007	1	Spoon	2	5-Jul	AB
303	004	1	Flint (gun flints)	5	30-Jun	AB/CB
304	002	1	Flint (gun flints)	1	25-Jun	AB/CB
305	001	3	Worked soapstone (Norse?)	1	13-Jul	CB

APPENDIX D: Bone Bag Register

Sample #	Context	Trench	Description	Date	Initial	# of bags*
1	001	1	Bone	25-Jun	CT/CB	
2	002	1	Bone	25-Jun	CT/CB	
5	003	1	Bone	25-Jun	GMC	
8	003	1	Bone	26-Jun	GMC/CT	
9	004	1	Bone	26-Jun	GMC/CT	
11	004	1	Bone	27-Jun	CT	
13	004	1	Bone	28-Jun	CT	
14	005	1	Bone	28-Jun	GMC	
15	006	1	Bone	28-Jun	CT	
16	007	1	Bone	28-Jun	CT	
17	007	1	Bone	1-Jul	GMC	
28	007	1	Bone	2-Jul	CT	
30	007	1	Bone	3-Jul	GMC	
34	001	2	Bone	5-Jul	GMC	
42	002	2	Bone	6-Jul	GMC	
43	003	2	Bone	6-Jul	GMC	
44	002	2	Bone	6-Jul	CB	
46	004	2	Bone	6-Jul	GMC	
48	005	2	Bone	7-Jul	CT	
50	006	2	Bone	7-Jul	CT	
52	006	2	Bone	8-Jul	CT	
53	007	2	Bone	8-Jul	CT	
55	008	2	Bone	8-Jul	GMC	
58	009	2	Bone	8-Jul	GMC	
59	009	2	Bone	9-Jul	CT	
62	010	2	Bone	9-Jul	GMC	
64	011	2	Bone	9-Jul	AB	
69	012	2	Bone	9-Jul	GMC	
71	012	2	Bone	10-Jul	GMC	
81	013	2	Bone	10-Jul	GMC	
90	001	3	Bone	13-Jul	GMC	
97	001	3	Bone	14-Jul	GMC/CT	
101	002	3	Bone	15-Jul	GMC	
103	003	3	Bone	15-Jul	GMC	
105	004	3	Bone	15-Jul	GMC	
106	005	3	Bone	16-Jul	GMC	
108	006	3	Bone	16-Jul	AB	
109	007	3	Bone	16-Jul	CB	

*Approximation of faunal assemblage volume based on 12x15" bags. Final accounting pending completion of sorting. Access to the bone bag inventories at Hunter College is presently not possible due to coronavirus lockdowns. This document will be updated once those restrictions are lifted.

APPENDIX E: Organic Residue Sampling Specimen Register

Current as of May 2020

Sample #	Type*	Find #	Find Type
21	Int	88	Ceramic
22	Int	89	Soapstone
23	Int	87	Ceramic
24	Int	86	Ceramic
25	Int	85	Cooking stone
91	FC	148	Soapstone
92	FC	113	Soapstone
93	Int	149	Soapstone
94	Int	108	Ceramic
95	Int	185	Ceramic
96	Int	110	Ceramic
98	Int	35	Ceramic
99	Int	93	Soapstone
100	Int	111	Ceramic

*Int = Interior samples drilled from specimen;
FC = Food crust scraped from specimen's surface.