RECENT RESEARCH NOTES

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Recent Research Notes is intended to be a useful venue for making colleagues aware of ongoing or recent research in any of the four fields of anthropology, and for disseminating brief notes of new C14 dates or other interesting finds, particularly those which do not seem likely to lead to other publication. We do not limit coverage to research taking place in Alaska, but rather include information on research anywhere in the circumpolar Arctic and subarctic.

ALASKA

UAA PROFESSOR CREATES NEW HEALTHY AGING RESEARCH LAB

Submitted by Britteny M. Howell, PhD, CPG,
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Older adults are projected to outnumber children for the first time in U.S. history in 2030 (U.S. Census Bureau 2018). This segment of our population is often termed the "silver tsunami" because many state and city governments are unprepared for the deluge of their changing service needs (KTUU 2018). Alaska is no exception. In fact, we have the fastest growing proportion of older adults in the country (Administration on Aging 2018). In addition, here in the urban subarctic we have historically had older adults retiring to warmer climes or "snowbirding." As more of our growing population of older adults in Anchorage are choosing to age in place, health researchers need to identify ways to bridge the gaps in our available services.

In January 2019, new faculty member Britteny M. Howell, PhD, CPG, in the Division of Population Health Sciences founded the UAA Healthy Aging Research Lab to address some of these growing needs. The research lab's mission is threefold:

1. to increase undergraduate research opportunities for students considering health science careers
2. to learn more about the barriers to healthy aging in our urban, subarctic environment
3. to expose more of the future health workforce in Alaska to the needs of the geriatric population

Howell oversees several research projects being conducted by a graduate student (master's degree in public health program) and nine undergraduate research assistants. For example, the lab is concluding a healthy aging concept mapping project, wrapping up a needs assessment of senior services in Anchorage, and planning a service-learning health promotion program for low-income seniors; all of the projects are in collaboration with community-based partner agencies. Undergraduate students have had the opportunity to present research results at professional conferences and have coauthored newspaper and academic journal articles with Howell. If you have questions or would like to be contacted by the Healthy Aging Lab for future opportunities, please contact Howell or visit the UAA Healthy Aging Lab website, https://sites.google.com/alaska.edu/uaa-healthy-aging-lab.

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RECENT ARCHAEOLOGICAL SURVEY ON THE PACIFIC COAST OF HALLO BAY, ALASKA PENINSULA

Submitted by Sam Coffman, University of Alaska Museum of the North (sccoffman@alaska.edu)

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In 2017 Katmai National Park and Preserve and the University of Alaska Museum of the North partnered through a cooperative agreement (P13AC01025) to conduct archaeological survey from the Savonoski River to Hallo Bay, on the upper Alaska Peninsula. The first year of the project was spent surveying along the Savonoski River on the Bristol Bay side of the Aleutian Range, and in 2018 a survey was conducted along the Pacific coast of Hallo Bay. The 2018 survey was successful in recording three new archaeological sites: AFG-367, AFG-368, and AGF-369. AFG-367 is the focus of this research note. The site is located along a westward-facing sandy beach exposure (Fig. 1). Four slate fragments were initially found eroding from the beach exposure, one of which exhibited lateral incising (Fig. 2). Examining the exposed beach stratigraphy revealed a series of charcoal layers intermixed with several oxidized layers, interpreted as ochre layering. Approximately 100 m from the beach exposure, three surface features were identified (cf. Fig. 1).

Two shovel tests were carried out at the site. The first (STP 1) was placed approximately 30–50 cm away from the edge of the beach exposure. The intention of this was to summarize the similar stratigraphy seen at the beach exposure and to recover artifacts in situ. The first shovel test extended to a depth of 180 cm below surface (CMBS), with two flakes recovered at a depth of 120–130 CMBS. The two flakes are tertiary flakes, lacking cortex. Raw material consists of slate and a fine-grained volcanic material, likely basalt. No culturally well-associated charcoal was recovered during this test. As a result, the beach exposure was cleaned (Fig. 3), further exposing both charcoal and ochre layering and some additional lithic material. Charcoal samples were collected from the exposure at depths of 105, 108, and between 123 and 127 CMBS. The deepest sample, overlying a coarse sand, was submitted to the University of Georgia Center for Applied Isotope Studies for radiocarbon dating, where it yielded a radiocarbon age of 4560±20 BP (3368–3122 cal BC) (UGAMS-38379) (Table 1).

Our second test (STP 2) was placed within Feature 1 of the three identified features (Fig. 1). Feature 1 is a multichambered feature, consisting of at least three rooms, which measures about 8 x 9 m. The two side rooms are both about 4 m long and 5 m wide. STP 2 was placed directly in the center of the main feature. Four stratigraphic levels were documented during the test, with level three containing the cultural zone occurring at 70–85 CMBS. Stratigraphy between the two test locations is different; however, color and texture of the cultural horizon matrices are similar, consisting of a charcoal-rich compacted sand. Several lithics were collected from STP 2 in association with a well-defined charcoal layer at 73 CMBS. Sampled charcoal collected at this same level yielded a radiocarbon age of 4710±20 BP (3628–3377 cal BC) (UGAMS-38378) (Table 1). The remaining two features went untested. Feature 2 measures about 11 x 9 m and has at least one side room measuring 5 x 5 m. Feature 3 is located in the forest, more offset from the beach ridge. It measures roughly 10 x 15 m and does not contain any discernible side rooms.

The lithic assemblage from AFG-00367 is too small to make any clear statement about site activities or reduction strategies occurring at the site. Statistically the two dates are different at a 95 percent confidence level; $t = 28.125$, $\chi^2(0.5) = 3.84$, $df = 1$. However, the two radiocarbon dates suggest the presence of an Ocean Bay occupation at the site (G. Clark 1977; D. Clark 1979). The two dates coincide with the transition between Ocean Bay I and Ocean Bay II (D. Clark 1979:215). The possibility of intact surface features for this site may offer a significant glimpse into

Table 1. Radiocarbon dates from AFG-367.

Lab Number	Context	Material	$\delta^{13}C$	Uncalibrated RCYBP (1σ)	Calibrated Date (2σ) cal BP
UGAMS38378	Feature 1 (73 CMBS)	Charcoal	–24.98	4710±20	5326–5405 (0.56); 5446–5478 (0.223); 5537–5577 (0.2123).
UGAMS38379	Cleaned beach exposure (123–127 CMBS)	Charcoal	–24.97	4560±20	5071–5108 (0.19); 5127–5165 (0.23); 5278–5317 (0.58).

Calibrated using Calib v.7.1 (Stuiver et al. 2017)

this highly mobile maritime culture that presumably followed seasonal abundances or availability of key resources throughout the year. Spatial patterning and architectural design and construction of Ocean Bay features might also be possible at this site. This site may be interpreted as representing an ancestral site to Chiniak (AFG-00001) or Kaguyak (AFG-00043), both of which are in the immediate vicinity.

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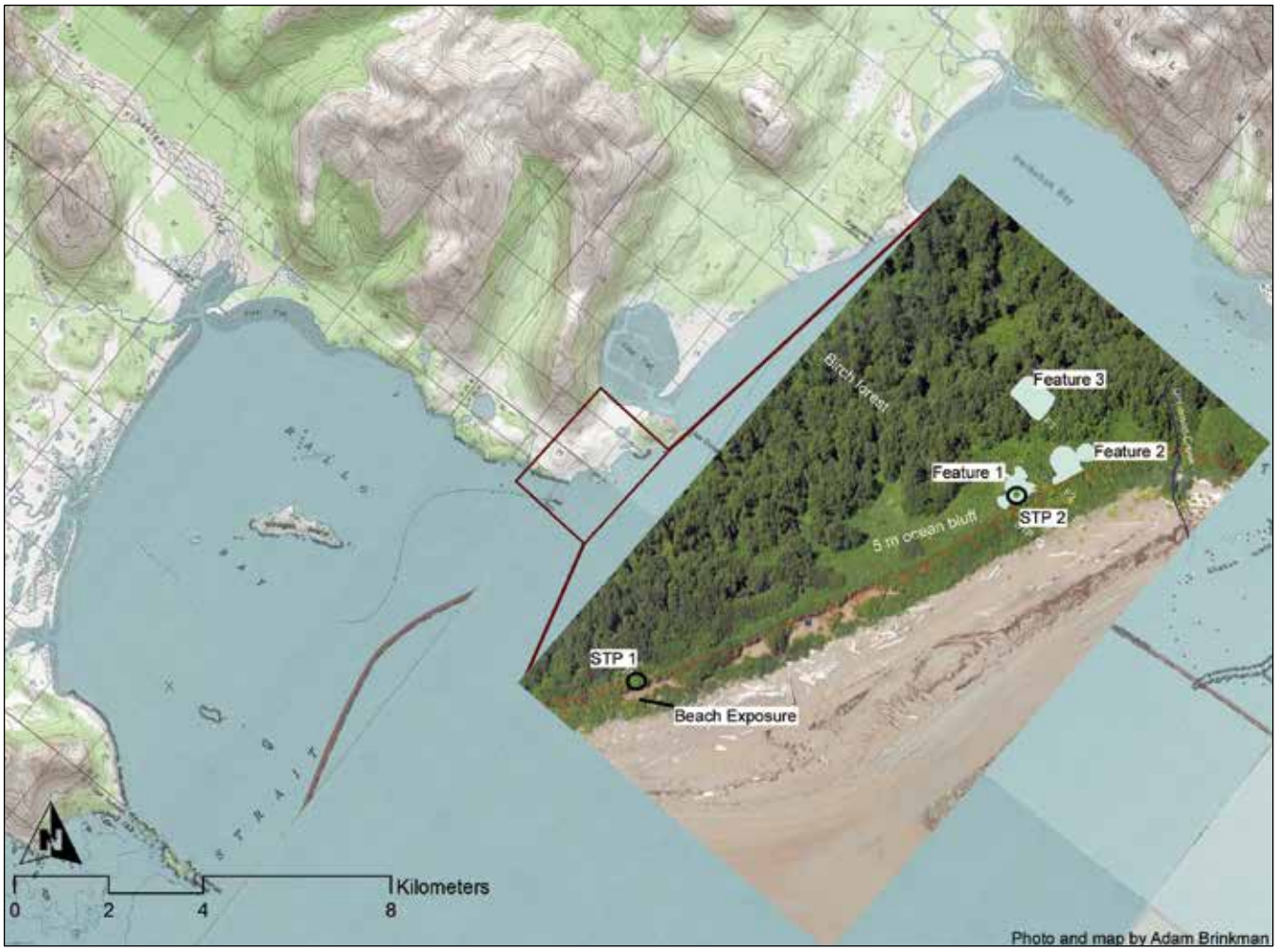

Figure 1. Site map of AFG-367.

Figure 2. Collected artifacts from beach exposure. Third from left exhibits lateral incising.

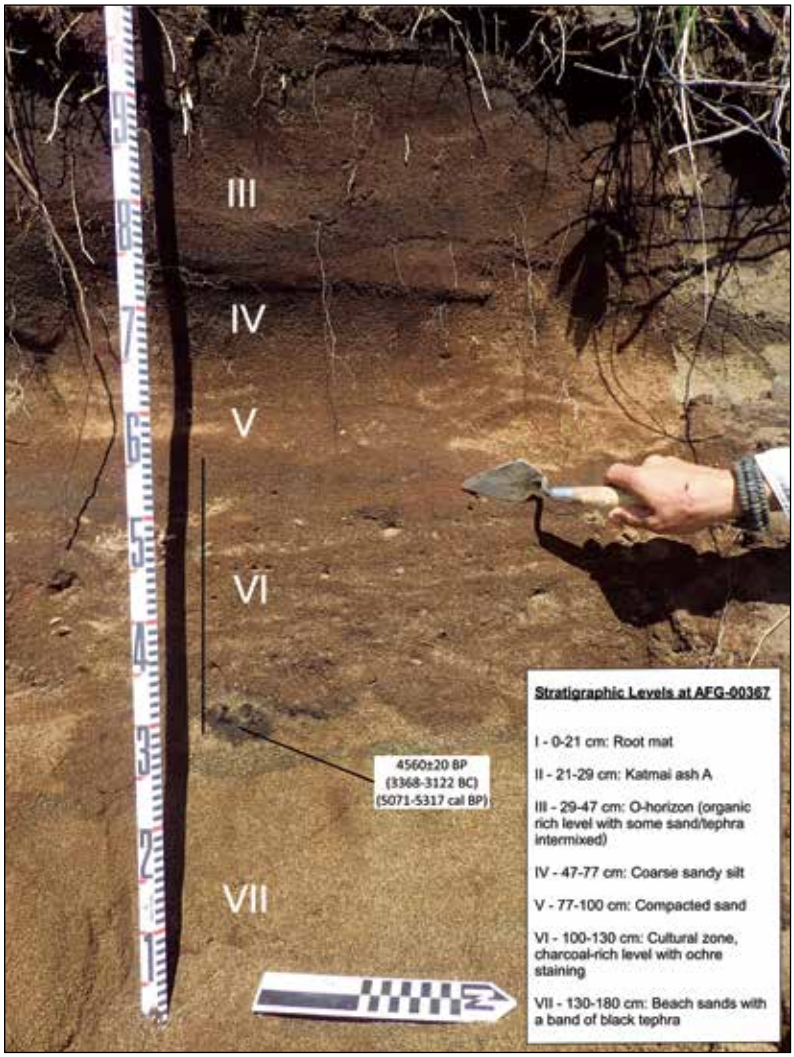

Figure 3. Cleaned beach exposure. Trowel pointing at ochre level.

BIRNIRK REDATING PROJECT

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A group of researchers is beginning a project to reexamine Birnirk dating. A number of high-quality dates have recently become available to supplement earlier work. We plan to use Bayesian modeling to assist in refining the chronology. We are currently assembling as complete a database as possible in order to identify possible data gaps. We are looking for people who may have dates on materials from a solid Birnirk context which remain unpublished (for example, from a CRM project) that they would be willing to share with the project.

GREENLAND

RECENT LANDSLIDES AND ARCHAEOLOGICAL IMPACTS IN NORTHWEST GREENLAND

Submitted by Matthew Walls, Department of Anthropology and Archaeology, University of Calgary

Pauline Knudsen, independent scholar

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Pivinnguaq Mørch, Ilisimatusarfik/University of Greenland

Across the Arctic, the impact of climate change on archaeological landscapes takes place through a variety of processes that can sometimes have a very localized character. To anticipate site vulnerability and to prioritize responses, it is critical for archaeologists and communities to make interregional comparisons. In northwest Greenland, archaeological landscapes are being significantly affected by factors familiar in other Arctic contexts, such as coastal erosion and melting of permafrost. Sites are also being damaged by mass wasting events, which over the last 10 years have dramatically increased in frequency throughout the region. In 2018 we surveyed several affected areas in the vicinity of Qaanaaq and Siorapaluk as part of a wider community-based impact assessment.

A key characteristic of these mass wasting events, relevant to archaeologists working in other Arctic regions, is their suddenness (Fig. 1). The complexity of factors driving the sudden increase in landslides is being studied by our colleague Yamasaki, who identifies rainfall as the immediate cause. The terrain in northwest Greenland is steep, and the surficial geology of affected areas is comprised of Proterozoic sandstone conglomerates covered in layers of postglacial regolith, which flows easily when lubricated by water. Instability in the meteorological dynamics of the area has led to higher rainfall during an increasingly prolonged above-freezing season, raising the likelihood of landslides for any slope. Indeed, most of the scars visible in the 2018 image (Fig. 1) took place after particularly heavy rain events in 2016 and 2017.

A challenge in assessing the full consequences of these landslides for the archaeological landscape is the prior lack of systematic survey in the region. During our 2018 fieldwork, we identified numerous sites that have not been previously documented. In most cases, these demonstrated significant impact from mass wasting. For example, we located several instances where continuous clusters of features (tent rings, caches, graves, etc.) were cut off by debris flows that left parts of the site either completely removed or buried under colluvium (Fig. 2). We are complementing these field observations with a number of desktop analyses involving high-resolution satellite imagery digital elevation models in order to understand the extent of damage and to predict areas under further risk of destruction. As our work develops in future seasons, we will use our results to build a framework for identifying site vulnerability at a regional scale. To this end, we will return during the 2019 and 2020 field seasons to conduct further survey and community interviews. In our ongoing project work, there are several opportunities for fieldwork and funded graduate projects, particularly for students with a background in GIS and remote sensing.

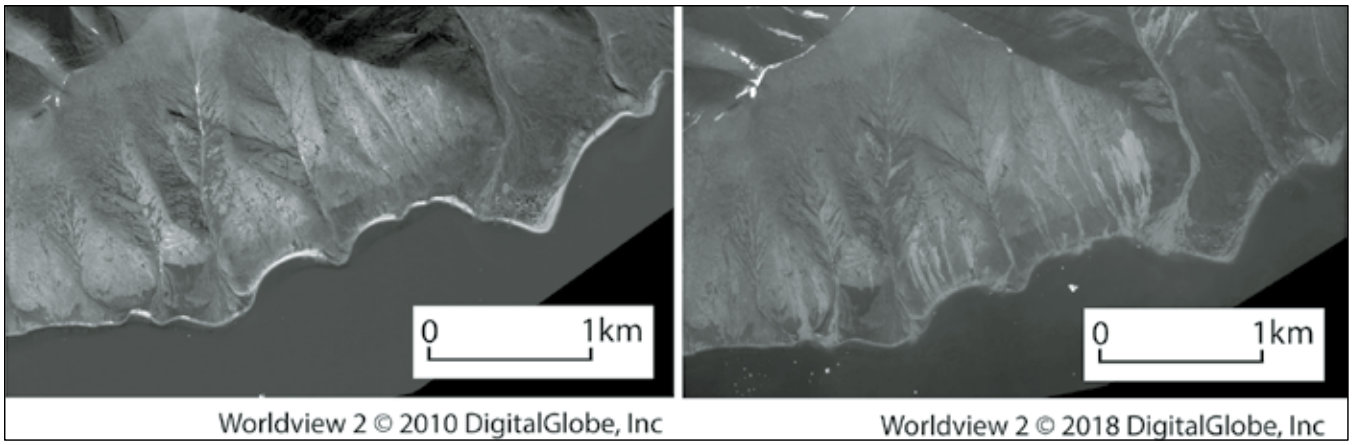

Figure 1. Satellite images of a study area near Siorapaluk from 2010 (left) and 2018 (right) with landslide scars demonstrating the extent and frequency of mass wasting in the area.

Figure 2. A typical context encountered in the Siorapaluk study area, where mass wasting has removed some sections of a site and buried others. Photo by M. Walls.