The beach ridges of Cape Krusenstern extend for miles as viewed from the air. More than 200 generations of Native people lived in this resource-rich coastal landscape.

People occupied the beach ridges soon after the ridges began to form [about 4,200 years ago].

Need for new research
Previous research at the beach ridge complex, conducted by J.L. Giddings and his students in the 1950s and 1960s, established a timeline, or chronology, of human occupation for northern Alaska. This chronology, however, was based on relatively few radiocarbon dates. The archeological survey covered parts of the entire beach ridge complex, but was not systematic, and missed some key areas within the landscape where human occupation occurred. In the intervening years, the spatial locations for many of the identified archeological sites were lost.

A new effort was needed at the beach ridges to: (1) gather more archeological material such as animal bone, antler, or charcoal for radiocarbon dating, and (2) correlate these dates with new or old archeological findings about the human occupations (e.g., the number, shape, size, and character of past campsites, houses, and other features related to past human activity). From this correlation, researchers could infer the timing and character of past human settlement at the Cape Krusenstern beach ridge complex. This new effort was named “200 Generations” in honor of the cultural legacy represented in the archeology of the beach ridges.

To carry out the project, in 2008, Shelby Anderson, now on the faculty at Portland State University in Oregon, and Adam Freeburg, a graduate student at the University of Washington, teamed up with Eileen Devinney and Bob Gal of the National Park Service (NPS). The plan was to continue and expand the field work initiated by the NPS in 2006.

Field methods and artifact analyses
From 2008 to 2010, the field crew conducted a comprehensive archeological survey of the beach ridge complex. This survey team identified archeological sites and features, collected sediments and artifacts through small test excavations, and mapped sites using highly accurate global positioning system (GPS) technology. Using the GPS technology, the research team could collect data rapidly, produce reliable maps, and analyze findings spatially. In the analysis of artifacts, Anderson and Freeburg specialized in interpreting pottery and animal bones, respectively.
Findings about past lifeways
The research team surveyed approximately one-third of the beach ridge complex, making 57 test excavations over 2,900 acres (1,173 hectares). The team found hundreds of new artifacts (animal bones, beads, and tools), and more than 2,500 features (e.g., houses and campsites, some of which were known from previous research).

The majority of the archeological materials found through survey and testing were animal bones. Freeburg’s preliminary analysis indicates that various seal species were an important resource for people living at Cape Krusenstern as far back as 2,000 years. Other species present in smaller numbers include caribou, various types of birds, and some fish.

The team found both groundstone and chipped stone tools, along with debris from tool-making activities. Slate tools, considered a specialized technology designed for marine mammal hunting, are associated with later settlements. Evidence for the increased importance of fishing at more recent sites includes fishing tools (e.g., nets) and fish bones.

Anderson’s analysis of pottery shows direct links among people across the region. Analyses of the pottery’s chemical and mineral composition help trace the pottery found at Cape Krusenstern to where it was made—some pottery came from as far away as the central Kobuk River region and the Seward Peninsula. Some raw materials, such as the nephrite or jade used to make groundstone adzes, came from the central Kobuk River region as well. Blue glass beads, which date to the 17th or 18th century, further illustrate the widespread connections between people at Cape Krusenstern and beyond; the beads likely were obtained from Chukchi trade partners across the Bering Strait.

The number of new features found during field work indicates that settlement was denser than previously thought (see overlay of orange sites on aerial photo at right). The new dates for archeological materials indicate that occupation was nearly continuous over the last 4,200 years. There are very few gaps in the 247 radiocarbon dates obtained from charcoal and bones at the Cape’s archeological sites.

In general, the human population increased from 4,200 years ago until about 1,000 before present (BP), with people spending more time at the Cape in semi-permanent settlements after approximately 2,000 years BP. There are more houses partially dug into the ground in later periods. These houses were a huge time investment to build and used limited resources such as wood. They are also designed for cold-weather habitation, indicating that, in later years, people were spending more seasons of the year on the beach ridges. After about 2,000 BP, there are more sites, indicating an increase in local population. The record for the last 1,000 years is not as clear, and questions remain about possible changes in settlement patterns and subsistence during this time.

Significance of the findings: 200 generations
While coastal erosion has been going on since the Cape formed, erosion now is increasing at unprecedented rates because of climate change. Erosion is washing artifacts onto the beaches—where their context and stories become lost.

The findings at Cape Krusenstern are important because they further document past human occupation in coastal areas of northwest Alaska. Specifically, they refine the details of when and how people settled the beach ridge complex, and what specific cultural changes occurred there during the last 4,000 years.

There are strong connections between people living in northwest Alaska today and those who lived at the beach ridge site in the past. Students from the Sisualik Culture Camp spent a day on the beach ridges learning about archeology. Their families hunt the same birds, fish, caribou, and seals, and pick the same berries, as did the people living at Cape Krusenstern over the last 200 generations.

For more information
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This research was funded by the NPS and carried out by the University of Washington under cooperative agreement J8W07070032, through the Pacific Northwest Cooperative Ecosystem Studies Unit.