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978-1-107-02250-8 - The Foragers of Point Hope: The Biology and Archaeology of Humans on the Edge of the Alaskan Arctic

Edited by Charles E. Hilton, Benjamin M. Auerbach and Libby W. Cowgill

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Cambridge Studies in Biological and Evolutionary Anthropology 68

The Foragers of Point Hope: The Biology and Archaeology of Humans on the Edge of the Alaskan Arctic

On the edge of the Arctic Ocean, above the Arctic Circle, the prehistoric settlements at Point Hope, Alaska, represent a truly remarkable accomplishment in human biological and cultural adaptations. Presenting a set of anthropological analyses on the human skeletal remains and cultural material from the Ipiutak and Tigara archaeological sites, *The Foragers of Point Hope* sheds new light on the excavations from 1939 to 1941, which provided one of the largest sets of combined biological and cultural materials of northern latitude peoples in the world.

A range of material items indicated successful human foraging strategies in this harsh Arctic environment. They also yielded enigmatic artifacts indicative of complex human cultural life filled with dense ritual and artistic expression. These remnants of past human activity contribute to a crucial understanding of past foraging lifeways and offer important insights into the human condition at the extreme edges of the globe.

CHARLES E. HILTON is an Assistant Professor in the Department of Anthropology at Grinnell College, Iowa. As a biological anthropologist with a background in human skeletal biology, functional morphology, human evolutionary ecology, and epidemiology, his research focuses on how small-scale human groups, particularly foragers, develop and evolve both short- and long-term biological and cultural responses within environmental settings offering limited resources.

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“This volume represents a true anthropological reconstruction of life among the prehistoric foragers from Point Hope, Alaska. It includes important perspectives regarding the ecological realities of adaptation in this harsh environment that are integrated into the perception of this landscape by the Ipiutak and Tigara people themselves. The work is a must-read for all who find interest in hunter-gatherer populations and scholars who value integrated anthropological research.”

Daniel H. Temple, University of North Carolina, Wilmington

“Point Hope, a narrow spit of land on the Arctic Ocean, is something of an enigma in Alaskan prehistory. Since the pre-Second World War excavations of its varied habitation and cemetery sites the archaeology has been well chronicled, though not with unqualified acceptance. In addition, with exceptions, the ancient inhabitants themselves received little attention – as in the lack of research on some 500 recovered Ipiutak and Tigara skeletons. Finally, after more than 70 years, this superbly edited volume addresses that neglect. Between up-to-date accounts of the archaeological context and thoughtful comment by highly respected circumpolar researchers, a series of comprehensive yet highly readable chapters by biological anthropologists and bioarchaeologists give insight into the origins, affinities, and everyday lives of people who once called Point Hope home. Though long overdue, this much-needed biocultural insight was worth the wait.”

Joel D. Irish, Liverpool John Moores University

“This volume provides the reader with almost everything one would want to know about the archaeology and skeletal biology of the prehistoric Ipiutak and Tigara samples from a tiny, but important strip of land in Point Hope, Alaska. With a wide array of well-written chapters on topics as diverse as the Ipiutak “spirit-scape” to dental microwear to paleopathology, from growth and development to the samples’ genetic affinities inferred from cranial morphology, this book provides much-needed contextual knowledge on this fascinating skeletal sample, and will be a go-to resource for those interested in the bioarchaeology of circumpolar peoples.”

Trenton W. Holliday, Tulane University

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Foreword

Originating as the local name for a sandbar separating two lagoons on the north shore of Point Hope, at the western extremity of Alaska's northerly Lisburne Peninsula on the Chukchi Sea, the term Ipiutak is synonymous today with a world-famous art form and an ancient Arctic culture. We know about the lives, cultures, and biology of the extraordinary people who lived at Point Hope between about 1,600 and 500 years BP largely thanks to excavations carried out by the archaeologists Helge Larsen, of the Danish National Museum, and Froelich Rainey, of the University of Pennsylvania. These excavations ran from 1939 to 1941, until interrupted by World War II, and cultural results were rapidly published (Rainey, 1941, 1947; Larsen and Rainey, 1948). In three short but intensive field seasons, Larsen and Rainey began by excavating the ruined village of Old Tigara, adjacent to the modern settlement of Tigara (now Tikiġaq). They also investigated neighboring middens and graveyards, both near Tigara and in the vicinity of Jabbertown, about a kilometer to the east. These sites yielded mainly artifacts comparable to those found in "historic Eskimo" sites. Later, the researchers concentrated their attention on dunes a few hundred meters to the north and east of Tigara, which proved to cover the substantial habitation remnants (of around 600 houses) and graveyards that yielded the older classic "Ipiutak" materials.

For the 1941 season, Larsen and Rainey were joined by Harry Shapiro, a physical anthropologist at the American Museum of Natural History, whose participation assured that all of the skeletal remains recovered would go to New York City, while the artifacts were eventually dispersed among several institutions (and some were later lost in transit when the collection was divided after study at the American Museum). Also involved, from the beginning, was the dendrochronologist James Louis Giddings of the University of Arizona, who provided a valuable independent account of the work at Point Hope in his memoir (Giddings, 1968) published over two decades later.

The excavations proved to be extraordinarily productive. In all, some 10,000 artifacts and 500 skeletons were recovered, spanning multiple periods of sustained occupation of the Point Hope sand spit. The very sparse oldest remains, identified by Larsen and Rainey (1948) as "Near-Ipiutak," are

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currently of uncertain age, but may date as far back as 2,200 years BP (Mason, 2006a). A small series of conventional radiocarbon dates places the overlying Ipiutak culture proper at between 1,600 and 1,300 years BP (Gerlach and Mason, 1992; Mason, 2006b). Subsequent to this, there is some evidence of sporadic occupation of Point Hope through Birnirk and early Thule times, until settlement flourished again with the Tigara occupation that began at some point between about 600 and 500 years BP (Gerlach and Mason, 1992; Mason, 2006b). The break between the Ipiutak and Tigara occupation periods is marked by substantial cultural differences (Larsen and Rainey, 1948; Mason, 1998). The older Ipiutak material culture is highly characteristic, and is set apart particularly by distinct mortuary practices, exquisite stone working, and striking figurative depictions of mainly animal subjects in ivory. Although marine prey were extensively hunted in Ipiutak times, caribou also figured significantly in the subsistence economy. In contrast, the Tigara fit firmly within the whale-hunting Thule tradition, with clear affinities to later Inuit populations.

In their classic work *Ipiutak and the Arctic Whale Hunting Culture*, Larsen and Rainey (1948) explored the origin and development of Ipiutak culture, tracing the shifting environmental conditions and speculating about the attendant subsistence technologies that made life possible on the extreme northwestern tip of North America. The momentous discovery of the rich Ipiutak culture on Alaska's Arctic coast introduced a new piece to the cultural puzzle: an almost 2,000-year-old expression that, while subtle and complex, lacked such typical western Eskimo features as lamps, rubbed slate tools, sleds, bow drills, pottery, and harpoon floats and other evidence of whale hunting. Contemporary archaeologists continue to debate the nature of Ipiutak subsistence and adaptation (Mason, 2006a).

Despite their primary focus on the survival skills that are so evident in the material culture from Point Hope, Larsen and Rainey could not resist sharing their feelings about the extraordinary artworks they unearthed at Point Hope. There was just something special about those ancient Ipiutak carvers. Not only were they extraordinarily skilled at working ivory, but their originality and ingenuity find few counterparts, then or now. Virtually each example of this delicate work is a unique construction, reflecting its own beauty of form, and showing a deft and concise simplicity in decorative touch.

While the cultural assemblage from Point Hope benefited from the immediate monographic attention of Larsen and Rainey, the skeletal remains, intended for the attention of Harry Shapiro, languished effectively unstudied for decades. Shapiro's sole contribution to the publication of the American Museum of Natural History's large Point Hope collection was as nominal co-author, with the retired surgeon Charles Lester, of a short contribution on defects in the

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vertebral arch (Lester and Shapiro, 1968). As a consequence of this neglect the Point Hope skeletal collection was never monographed as it should have been. With the sole exception of a note in 1959 by the Russian anthropologist G. F. Debetz, short publications only began to appear in 1980, when Raymond L. Costa began to publish the results of his thesis research (Costa, 1977) on dental pathologies (Costa, 1980a, b, 1982). Soon thereafter, Point Hope additionally figured in Charles Utermohle's (1984) comparative study of ancient Alaskan populations. Subsequent publications on the Point Hope skeletons have included contributions on possible tooth drilling (Schwartz *et al.*, 1995), on dental microwear (El-Zataari, 2008; also an unpublished thesis by Krueger, 2006), body proportions (Holliday and Hilton, 2010), and thesis-based (Dabbs, 2009a) examinations of evidence in the samples for tuberculosis and general health status (Dabbs, 2009b, 2011). Guatelli-Steinberg *et al.* (2004) used the series as an important reference in a comparative study of Neanderthal adaptation, and an abstract was published on erosive arthropathy by Latchaw and Hilton (2004). An unpublished thesis on dental evidence for division of labor was additionally completed by Madimenos (2005). Genomic investigation began with the work of Blaine Maley (Maley *et al.*, 2006; Maley, 2007, 2011); preliminary work revealed that all members of an initial sample belonged to mtDNA haplogroup A, found in frequencies of up to 97% in modern Inuit populations (Maley *et al.*, 2006).

In 2006, a high point was reached when a well-attended symposium was devoted to the Point Hope skeletal series at the Annual Meeting of the American Association of Physical Anthropologists in Anchorage, Alaska (Hilton *et al.*, 2006). This book is in part an outgrowth of that symposium, and in equal part an attempt to address the dearth of available documentation of the outstandingly important Point Hope collection. The editors have gathered a broad-based team of researchers both to overview what is known, and to present the results of new research. Anne Jensen provides an invaluable review of the place of Point Hope in Alaskan archaeology, while Owen Mason delivers an ethnographic appraisal of the cult of shamans at which Larsen and Rainey darkly hinted. Blaine Maley uses cranial data to look at the important question of biological continuity between the Ipiutak and Tigara populations, and differences in diet are addressed by both Sireen El-Zataari and Kristin Krueger through the lens of dental microwear. Issues of growth and development are considered by Libby Cowgill, and the putative skeletal effects of physical activity by Laura Shackelford. General health and morbidity in the samples are examined by Hilton and colleagues, while global views of the samples are presented from varying perspectives by Ben Auerbach, Don Dumond, and Bill Fitzhugh. All in all, thanks to the efforts of the editors, we finally have before us the general

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appraisal that the hugely significant Point Hope skeletal collections have for so long, and so richly, deserved.

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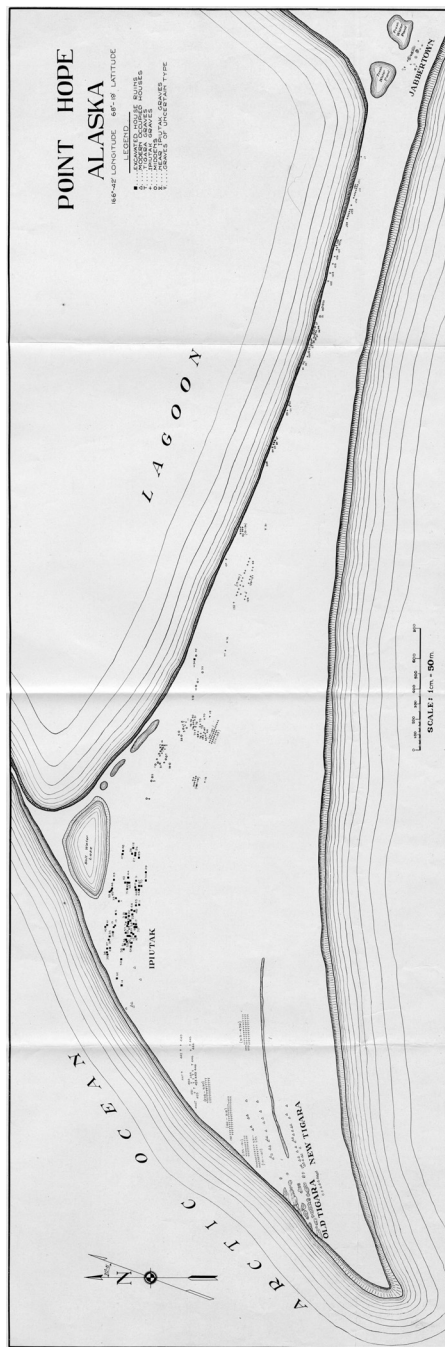


Figure 2 from Larsen and Rainey (1948, used here with permission from the American Museum of Natural History) highlighting the archaeological sites and the original archaeological excavations during the 1939–1941 field seasons. Subsequent erosion of the western shoreline forced the Point Hoppers to relocate the entire town to a spot approximately 2.5 km eastwards. A single airplane runway (3992 × 75 ft) has been built near the western shoreline of the peninsula and has an approximate north-south orientation that parallels the western shoreline. The runway is perpendicular to the east-west oriented beach ridges and cuts across the locations of former Old and New Tigara houses. (The original caption reads: “Fig. 2. Map of Point Hope, Alaska, showing position of Ipiutak village and graves, the Old and New Tigara graves, and the Jabbertown site.”)

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Preface

In 2006, one of us (C. Hilton) co-organized a symposium focused on the Point Hope skeletal remains at the meetings for the American Association of Physical Anthropology. Given the location of the meetings in Anchorage, Alaska, that year, this represented the ideal time and place to bring together a group of scholars interested in the bioarchaeology of this important, yet relatively understudied, site. At the same time, it allowed for living inhabitants of the Point Hope community to interact with the scholars interested in their history. In many ways, this symposium was long overdue. Although Dr. Harry Shapiro initiated formal analyses of the Point Hope skeletal material in the 1940s, this research was never completed. In the late 1990s, as a result of encouragement by Dr. Ian Tattersall of the American Museum of Natural History, skeletal research on this collection resumed. Therefore, the 2006 symposium represented the first focused group of scholars specifically interested in the biology of Point Hope in over fifty years.

The primary result of the symposium was a renewed understanding of the wide body of questions that could be addressed using the Point Hope material, and how little progress had been made in exploring these potential research avenues. The symposium served to highlight the myriad ways that Point Hope had been underutilized. While a large body of literature had previously been written about the archaeology of Point Hope, the archaeological analyses had not been revisited in many years. In addition, very little research had been undertaken on the skeletal remains themselves. While early hypotheses about cultural change at Point Hope had been suggested based on archaeological data, the evidence from biological anthropology had not been evaluated in this context, and it remained unclear if the subsistence transitions detected in the archaeological material from the site could be detected in behavioral analyses of the skeletal remains. Lastly, and perhaps most significantly, the site of Point Hope represented a truly unique opportunity to gain insight into lifeways in an Arctic foraging system. The recovery of the skeletal remains of almost 500 Arctic foragers makes the Point Hope skeletal collection one of the largest samples of northern latitude skeletal remains in the world. Because of the large size of the collection, its completeness and antiquity, as well as its unique geographic location, the human skeletal remains from this site represent an

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important source of knowledge for studies of hunting and gathering populations in general, and analyses of Arctic subsistence and biological adaptation in particular.

As editors of this volume, we sincerely hope that we have been able to rectify some of the more notable gaps in our knowledge about both Arctic foragers in general and Point Hope in particular. Given that, the goals of this volume are twofold. First, we hope to expand our current understanding of subsistence, adaptation, and stress at Point Hope, and also to broaden our knowledge of precontact life in Arctic Alaska as a whole. The biological anthropology contributions to this volume focus on relatively narrow parts of the picture of life at Point Hope, but aim to situate their research within the wider context of foraging adaptations and the biosocial demands of Arctic subsistence. Second, we hope this research more fully integrates both archaeological and biological perspectives on the Point Hope material into a cohesive whole. By including both lines of evidence in this volume, we may be able to resolve prior questions on the cultural transition that occurred at the site, and provide an additional viewpoint on culture change in foraging populations that can be applied to other groups in the future. In brief, we aim to create an example of research that is more comprehensively bioarchaeological, not only through the techniques of skeletal analysis, but also through a more complete integration of two diverse lines of evidence.

Chuck, Benjamin and Libby

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