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Some Unique Bone, Antler and Ivory Artefacts from Phillip's Garden (EeBi-1), a Dorset Paleo-Inuit Settlement in Northwestern Newfoundland

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INTRODUCTION

The first people of Arctic Canada and Greenland entered the region from northwestern Alaska and quickly spread eastward around 4500 years ago. For more than 3000 years, they moved throughout this vast area, taking advantage of the seasonal availability of vital resources that arrived fairly predictably in different locations. In this largely treeless region with poor soils and a short growing season, people relied upon animals for food, fur, sinew, fat for fuel, and the raw materials from which to manufacture tools. Not surprisingly, the ecology of animal species determined much of people's settlement and migration patterns.

Over the millennia, gradual changes in climate resulted in shifts in the availability of animal resources, which encouraged people to abandon some areas and settle in new places where they recognized greater opportunities. These groups of people, now collectively referred to as the Paleo-Inuit, represent a separate migration into the Arctic prior to the arrival of the ancestors of the Inuit, whom archaeologists in the past have referred to as the Thule (Friesen, 2015). From their pioneering years on, the Paleo-Inuit gradually increased their focus on marine resources. Using an elaborate harpoon technology, they hunted walrus and various seal species. While they may have taken advantage of occasional opportunities to hunt small whales, these first Arctic peoples did not have a whale hunting technology or traditions as did the later Thule Inuit. Travel and settlement in the interior regions may have been relatively brief, but would have been important to hunting terrestrial animals such as caribou and muskoxen and locating sources of stone suitable for toolmaking.

Paleo-Inuit tools were first recognized as distinct from the later Inuit material culture, partially because of their smaller size. These tools included harpoon heads tipped with triangular endblades; thin, razor-sharp microblades; stone graving and scraping tools; and general-purpose knives with bifacially chipped edges. Artefact preservation in the Arctic was not consistent over all time periods and regions, but many Arctic sites have yielded more soft tissue, antler, bone and ivory remains than sites in other parts of the world.

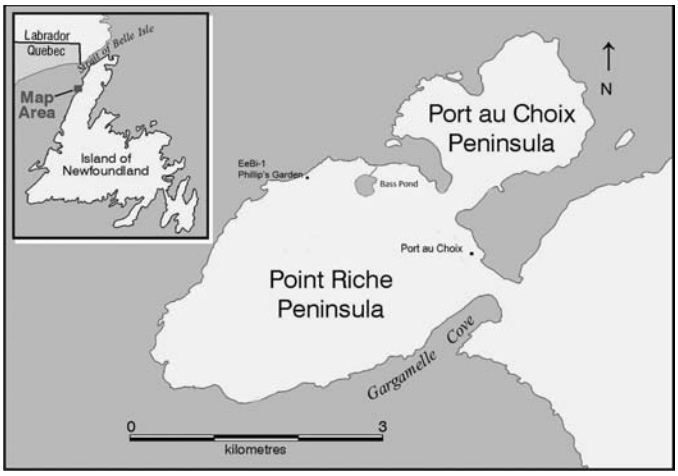

FIG. 1. Map showing the location of Phillip's Garden in western Newfoundland.

Despite the great expanse of the territory occupied by Paleo-Inuit people, their tool remains exhibit remarkable consistency in form and in the types of implements that make up their assemblages. Nevertheless, there are occasional examples of unique tools or object types that are not well understood and not numerous enough to aid in an analysis of broader cultural trends that define traditions. Consequently, these unique objects are seldom discussed or reported in the literature. However, until these objects are reported, they will remain obscure, and their age and distribution cannot be used to trace the movement of ideas and practices.

In this essay, I present three object types that were identified in a larger technological study of a Dorset Paleo-Inuit bone, antler, and ivory tool assemblage from Phillip's Garden (EeBi-1) on the coast of western Newfoundland (Fig. 1) (Wells, 2012; Wells and Renouf, 2014; Wells et al., 2014). My goal is to bring these obscure objects forward for consideration by others interested in the development and distribution of material culture traditions among the Paleo-Inuit.

THE DORSET PALEO-INUIT SITE OF PHILLP'S GARDEN (EeBi-1), WESTERN NEWFOUNDLAND

Within the broader Paleo-Inuit tradition, archaeologists recognize a cultural tradition referred to as the Dorset, which began approximately 2500 years ago in the eastern Arctic and lasted until the arrival of the Thule Inuit approximately 800 years ago. This cultural expression was marked by a gradual increase in population in the eastern Arctic (Maxwell, 1985; Savelle and Dyke, 2014). The Dorset settled in coastal areas, including inner and outer island locations, depending on the seasonal availability of game. Following the conventions of their ancestors, they were swift and exploratory travelers, moving along the cold temperate and temperate coasts of Labrador and onto the island of Newfoundland. They found familiar game animals in this most southern extent of their range, including various seal species, walrus, caribou, wolf, fox, and a variety of seabirds. And despite the great distance from their Arctic homeland, the types of Dorset tools and the materials used in their manufacture remained similar in shape and size, which suggests strongly held traditions and continued contact between regional groups. However, regional traditions emerged, particularly in Newfoundland.

Dorset sites in coastal Newfoundland are relatively common; the first people arrived approximately 1900 years ago and remained for about 800 years before abandoning the island and southern Labrador (Renouf, 2011). Most sites in Newfoundland are similar to those farther north, with one or two circular surface or semi-subterranean dwellings and a variety of stone tools. The Dorset presence in Newfoundland is well documented and demonstrates regional variation in tool form and stone material types used by groups on the island (Leblanc, 2008; Renouf, 2011).

At Phillip's Garden (EeBi-1), a large Dorset village focused on hunting harp seals during their twice-yearly migration past the present-day community of Port au Choix, the sandy limestone matrix allowed the preservation of antler, bone, and ivory objects (Renouf, 2011). These unusual preservation conditions permitted a detailed socio-technological study of the bone, antler, and ivory assemblage that revealed the unique nature of the collection (Wells, 2012; Wells and Renouf, 2014; Wells et al., 2014). For instance, while whale bone was used occasionally to manufacture tools elsewhere, it was the source of almost half of the tool assemblage at Phillip's Garden. And while many typical Dorset tools are present at the site, including Kingait style harpoon heads (Park and Stenton, 1998), barbed points and hafts for holding scrapers, and burin-like tools, there were also unique designs for common tool types such as sled shoes (Wells and Renouf, 2014) and examples of objects that were common at the site, yet apparently absent from Dorset assemblages elsewhere.

THREE UNIQUE OSSEOUS TOOLS

An assemblage of 3249 specimens of bone, antler, and ivory, representing the remains of tools and evidence of their manufacture, was analyzed in order to understand aspects of social and technological life at Phillip's Garden (Wells, 2012; Wells et al., 2014). The study defined tool types, variation in their form, the materials chosen for their manufacture, and the stages of reducing the materials from their natural form into tools. It also discussed the function of tools and situated their temporal and spatial distribution on the site within the context of seasonal and regional settlement patterns. The specimens were drawn from dated dwelling and midden (rubbish) features that spanned the geographic and chronological extent of the site. The assemblage represented activities such as hunting (harpoon heads, foreshafts, and barbed points), hide working (scrapers, needles, and awls), and tool making (punches and pressure flakers for removing chips in shaping stone tools, discarded osseous blanks and preforms, and waste material from cutting). The initial analysis process was sorting the objects into formal and functional categories. Three unique types of objects emerged and were assigned formal names: polished bead-like pieces, line fasteners, and foreshaft-like tools. How these tools functioned could not be determined with confidence; nevertheless, I describe their features and suggest possible functions below.

Polished Bead-like Pieces

Seventy-four pea-sized pieces made from ivory, bone, or antler were recovered from features that spanned the occupation of Phillip's Garden. Most pieces are round to cylindrical or slightly conical, and some have socket-like grooves carved into them (Fig. 2). Others are more amorphous in shape and may have uneven, ridged surfaces. All are highly polished as though they had been tumbled or rubbed. Many of the pieces retain evidence of having been cut and likely represent small fragments left over when blanks were cut from osseous core material.

Half of these objects are made of ivory; indeed, some appear to be human teeth. It is difficult to distinguish bone from antler in the remaining examples because of their size and degree of polish. Ivory is relatively rare at Phillip's Garden and is used in higher proportions only in the creation of ritually important objects, such as animal carvings (Wells, 2012:333). Therefore, ritual use of polished bead-like pieces is a possibility. Their polished surfaces suggest that they may have functioned as parts of rattles or drums. Alternatively, people may have carried them, singly or in numbers, as personal objects. However, while they are found throughout the site, they are not found in concentrated numbers, suggesting that they were less likely to have been kept in bundles.

FIG. 2. Polished bead-like pieces showing a variety of shapes and materials.

Line Fasteners

While carvings of animals and tools are not uncommon in Dorset contexts, 13 unusual objects with features similar to those of harpoon heads, but lacking functional characteristics, were identified in dated features at Phillip's Garden. These carvings are rectangular in shape and flat on one surface. On the opposite surface, they are tapered at one end while the other end flares with protrusions like those seen on Kingait harpoon heads. Unlike harpoon heads, these objects lack a socket for attachment to a foreshaft and have no way of fixing a stone blade necessary for piercing at the distal end (Fig. 3). A line is carved through the body of the pieces to allow lashing to fix it to a surface. When examined under 10× magnification, the line holes show polish along the lower edge, which suggests that they were bound to a flat surface in that orientation (Fig. 4). Nine of the 13 line fasteners showed evidence of decoration in the form of incised lines, usually in parallel pairs and occurring on one or two opposite surfaces. In one case, a series of short incisions was made across a single incised line, which is characteristic of decoration seen throughout the Dorset world (Fig. 5).

Line fasteners may have had a decorative or emblematic function, but there are examples of similar form from unrelated cultural contexts that could indicate their function as part of composite harpoons. They resemble 19th-century shaft attachments collected by Edward Nelson from

FIG. 3. Line fasteners. Note that all but one example have flared proximal ends, tapered distal ends, and line holes running through the bodies of the tools.

FIG. 4. Magnified (10×) view of a line hole on a line fastener showing polished edge.

Nunivak Island off the southwest coast of Alaska, which were used to secure lines on composite harpoons (Fitzhugh and Kaplan, 1983:77). They also resemble harpoon line stops of similar design and function seen in Thule Inuit collections (Maxwell, 1985:269). In contrast to other tools in the assemblage, line fasteners were made more often from ivory (38.5%) or antler (38.5%) and less often from bone (23.1%) (Wells, 2012:286).

Foreshaft-like Tools

A sample of 100 tools that resemble Thule Inuit harpoon foreshafts was recovered from features at Phillip's Garden. This unique class of artefacts has some variation in form that could indicate different functions, but all share a number of characteristics. They are all made of whale bone and are long and narrow; some have wider midsections, while others are straight-sided (Fig. 6). Most are oval in cross-section, but there are also diamond and triangular examples. One end of the tools is bluntly pointed, while the opposite end is tapered flat on two sides. All have line holes,

FIG. 5. Ventral surface of line fasteners showing decoration on some examples. Top row, third from the left shows a series of incisions through one central incised line running proximal to distal. Parallel pairs of incisions are apparent on the top row, left, and on the two examples in the bottom row at right.

FIG. 6. Foreshaft-like tools. Note variation in size and shape and the number and position of line holes. All examples are manufactured from whale bone.

FIG. 7. Typical endblade-tipped harpoon head and foreshaft from Phillip's Garden.

usually occurring singly and typically placed midway along the length of the tool and off-centre. A groove is usually carved from the line hole to the tapered end, probably to allow the line to lie flat against the surface so that the tapered end can fit into some type of socket.

Only four foreshaft-like tools were sharp enough to have been used as lances; the majority are too blunt to have functioned in this manner. They resemble harpoon foreshafts similar to those used by the Thule Inuit, but these are much too large and not shaped to fit into the Dorset harpoon head types (Fig. 7), nor would they bind well with the few lances that have been recovered at the site. Attempts to find clues to how they were used by examining their surfaces under low-powered magnification were of limited success. Very few striations were apparent, and the porous surface of the whale bone made it difficult to see distinct patterns.

A search of northern ethnographic literature turned up a similar tool used for making and repairing fishing nets among 19th-century Bering Strait groups (Nelson, 1899:192). These examples were long, narrow, bone tools with tapered ends and wide midsections with line holes. While the faunal remains at Phillip's Garden include fish, the foreshaft-like tools may have been used for making nets to capture harp seals. Today the harp seals make their way out of the Arctic and through the Strait of Belle Isle in the early winter, traveling through open water to the Gulf of St. Lawrence. On their spring migration north after the birth of their young, the seals often travel through channels in the spring ice that usually occurs close to land on this coast, and they are known to haul out on land from time to time. In the recent past, people on the coasts of Newfoundland and Labrador typically hunted harp seals with nets during the winter migration (LeBlanc, 1996). It is possible that people could have hunted seals using nets as well as harpoon technology at Phillip's Garden; however, this interpretation remains speculative.

CONCLUSION

This essay aimed to describe and present some Dorset Paleo-Inuit bone, antler and ivory tools from western Newfoundland that are apparently unique to the Phillip's Garden site. The Paleo-Inuit occupied a vast region, seeking out resources in locations where they could anticipate harvesting success. Over the millennia, they maintained consistency in many of their tool design and manufacturing practices; however, variation is apparent throughout their temporal and spatial existence. It is worthwhile to seek out and present the outliers in material culture and to broadcast their occurrence in order to better understand the practices and connections of the first Arctic peoples.

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