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Ethnohistoric documents as analogical tools: A case study from northwest Alaska

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ABSTRACT

Archaeologists endeavour to reconstruct technological, environmental, social, cultural, and even ideological aspects of past groups and individuals using the fragmented material past. Many, if not all, of these analyses rely on analogy. Archaeologists have used the direct historical approach extensively in the Arctic to develop more nuanced understandings of the prehistoric Inuit. In many cases, the direct historical approach is not truly direct; archaeologists often assume that secondary activities, such as those that occur contemporaneously with initial deposition but that are not described in the ethnographic record such as cleaning and post-depositional processes such as weathering, alter the archaeological patterns and inhibit direct comparison to ethnohistoric sources. In this study, I analyse the relationship between the archaeological record and documentary sources to establish which patterns and activities are visible in the archaeofaunal record. I test expectations based on the documentary record, ethnoarchaeological studies, and taphonomic processes against the faunal assemblage from an early Thule Inuit semi-subterranean dwelling at Cape Espenberg, Alaska. Despite expected disturbances from contemporary activities and post-depositional processes, the faunal assemblage closely resembles expectations of primary household activities described in ethnohistoric accounts relating to consumption, preparation, and storage of subsistence resources. Only a few expectations based on secondary activities are supported. Further work is needed to test these results throughout the Arctic and across time. However, these results suggest that archaeologists can use the direct historical approach, and related ethnographic analogies, directly to interpret archaeofaunal patterning in Thule semi-subterranean houses and middens.

1. Introduction

Analogies are important tools for interpreting archaeological data. Ethnohistoric documents, ethnographic observations, and cross-cultural generalizations are some of the source materials that archaeologists use to construct behaviours, social structures, and cultural actions from the fragmented material past. In certain locations, archaeologists apply ethnohistoric observations of a group to their cultural and genetic ancestors through the direct historic approach. By using this type of analogical reasoning, archaeologists develop rich, detailed interpretations of the past (David and Kramer, 2001; Hood, 1998; Peregrine, 1996). In order to use the direct historical approach to interpret archaeological sites, archaeologists need to assess how much of the assemblage patterning is due to primary depositional behaviours and how much is a result of other processes, such as cleaning, trampling, or weathering. Archaeologists typically use taphonomic studies, ethnoarchaeological observations, and experimental research to determine the patterning secondary processes explain and the assemblage patterning that is a result of primary behaviours. This study develops expectations from the ethnohistoric record and compares these expected patterns to the archaeofaunal record to determine if primary depositional patterning is still visible in the faunal record, or if post-depositional processes have significantly altered these primary patterns.

Archaeologists categorize archaeological formation processes in many different ways (e.g. Hayden and Cannon, 1983; LaMotta and Schiffer, 1999; McCartney, 1979; Needham and Spence, 1997; Schiffer, 1987, 1983, 1976; Stenton and Park, 1994). I am interested in identifying if behaviours are visible in the faunal record based on the ethnohistoric documents so I classify the activities and processes as primary and secondary activities (Table 1). Primary activities are initial behaviours detailed directly in the ethnohistoric sources such as butchery, cooking, and manufacturing. Secondary activities are both contemporary activities and post-depositional processes. I classify contemporary activities are those that occurred at the time of deposition but are not described ethnohistorically, such as cleaning. Post-

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Table 1
Expectation sets, with their description and sources.

Expectation sets		Activity description	Source
Primary activities	Ethnohistoric activities	Activities recorded by documentary sources (i.e. butchery, storage, cooking, skinning, and tool manufacture)	Documentary record Limited reliance on ethnoarchaeological and actualistic records
Secondary activities	Contemporary activities	Activities contemporary to the secondary stage activities but are not recorded in documentary sources (i.e. carnivore actions, secondary burning, trampling, and cleaning)	Actualistic ethnoarchaeological, and taphonomic studies Limited reliance on documentary records
	Post-depositional activities	Post-occupational activities (i.e. animal disturbances, weathering, and human actions)	Taphonomic studies limited reliance on documentary record

depositional processes are those that occurred after people abandon the site, such as weathering. I create expectations based on primary and secondary activities, against which I test patterns of an Arctic faunal assemblage.

Arctic faunal assemblages are an excellent source material as they are abundant, well-preserved, indicators of long-term behaviours and activities. They are the subject of multiple secondary activity studies. Since people typically did not curate bones, but discarded them as a part of daily activities, faunal assemblages can be used to establish long-term patterns of specific behaviours, actions, and activities within a dwelling such as subsistence strategies and human-animal relations. Experimental and ethnoarchaeological work shows that contemporary and post-depositional processes can drastically change the composition and patterning of a faunal assemblage (Reynolds, 1995; Schiffer, 1987; Stenton and Park, 1994). The question remains how much of the faunal record is a result of the primary depositional behaviours and how much is a result of secondary processes? Understanding which activities and practices are most like the ethnographic record in the Arctic will help other archaeologists use the documentary record to interpret archaeological assemblages that are more spatially and temporally distant.

2. Subject: An early Thule dwelling at Cape Espenberg

Analogy is a form of reasoning that uses established similarities and differences between source (i.e. documentary records, experimental studies, anthropological observations) and subject (the archaeological record) to propose more extensive similarities (Lyman and O'Brien, 2001, p. 204; Salmon, 1982, p. 57; Wylie, 1985, p. 93). Critiques of analogy in general, and the direct historical method in particular, have often focused on the uncritical use of ethnohistoric documents to interpret past activities (Hall, 1984, 1970; Meltzer, 1983; Ravn, 2011). People in the ethnographic present may not be good reflections of the people in the archaeological past, as form and meaning can change independently over time (Freeman, 1968, p. 263), which is often exacerbated by changes due to contact (Dunnell, 1991; Lyman and O'Brien, 2001; Spriggs, 2008; Stahl, 1993; Wobst, 1978). Beyond this, the broader use of analogical reasoning has been challenged as non-empirical and invalid as a source of interpretation (Ascher, 1961; Gould, 1980, 1978; Gould and Watson, 1982; Schmidt, 2010; Wobst, 1978). In response to these critiques, Wylie (2002a, 1988, 1985, 1982) and others (Jarvenpa and Brumbach, 2015; Ravn, 2011; Shelley, 1999; Stahl, 1993) have argued that analogical reasoning is part of even the most empirically-based interpretations and can be a strong interpretive tool, especially when strengthened by testing the assumed parallels between the ethnographic records and the archaeological record.

In the Arctic, both the source and subject material are ideal for studying the use of the ethnohistoric record in understanding the material past (Hall, 1970). Contact between the Inuit/Iñupiat and non-indigenous peoples resulted in multiple extensive, detailed, and varied accounts of the lifeways of Iñupiat in Alaska and Inuit in the Canadian Arctic. Archaeologists have used these sources to interpret archaeological data since the early days of Arctic archaeology (i.e. Giddings, 1952; Mathiassen, 1927a). These modern Arctic peoples are genetic and cultural descendants of the Thule archaeological culture, and this continuity provides an excellent foundation for testing the direct historical method (Lyman and O'Brien, 2001). The documentary accounts used as source material for the expectations are described below. In addition to comprehensive documentary sources, in many parts of the Arctic, the archaeological assemblages are very well preserved, with wood, hide, baleen, and sometimes meat present. This is especially true in semi-subterranean dwellings, where roof collapse after abandonment led to rapid incorporation into the permafrost and preserved much of the material on the floor (Friesen and Betts, 2006). The archaeofaunal material comes from one of these collapsed semi-subterranean dwellings.

The dwelling is part of an early Thule component of the northwest Alaskan site of Cape Espenberg (Fig. 1). The Thule culture was originally identified by Mathiassen (1927a, 1927b) during the Fifth Thule Expedition from Greenland. Sites used by people of the Thule culture, antecedent to the modern Inuit, Iñupiat, and Inuvialuit of the North American Arctic, are found from the Bering Strait to eastern Greenland, from ca. 1200 CE to the historic period. Material heritage and social structure across this territory vary, which allowed people to live in diverse regions with different resources. Some groups established a strong whaling component, some hunted seals for the majority of their diet, while others focused on terrestrial resources. Many of these differences were likely due to regionalization, but were also likely a characteristic of the cultural flexibility Thule people inherited from their ancestors (Norman and Friesen, 2010; Whitridge, 2001). Despite these regional differences, continuity in many aspects of culture and biology, including technology, architectural construction, and genetics, show clear relationships between the historic and modern Inuit/Iñupiat and their Thule ancestors.

One of the most western places Thule people inhabited in North America was the Cape Espenberg spit at the southwest edge of Kotzebue Sound. At Cape Espenberg, beach ridge and dune formation towards the Chukchi Sea over the last 5000 years created a horizontally stratified site that people occupied to varying degrees (Darwent et al., 2013; Mason, 1990). Dune ridge E-5 was the focus of Thule occupations at the spit. Wind and ocean actions deposited sand at ridge E-5 starting around 1100 cal CE, which stabilized by 1300 cal CE. People occupied the dune quickly after it stabilized, with radiocarbon dates on the floor surfaces of Feature 87 ranging from 1290 to 1445 cal CE (Norman et al., 2017). The broad date range is likely a residue of the calibration curve, but may also be due to one or more rebuilding episodes during the use life of the house (Norman et al., 2017).

Feature 87, one of the Thule dwellings at the site, has a typical early Thule house floor plan with a rectilinear main room with a raised back bench, a long sunken entrance tunnel that acted as a cold trap, and a kitchen area off the front of the house (Fig. 2). The kitchen attachment to the house was obscured by rebuilding episodes and a previous excavation (Harritt, 1994; Norman et al., 2017). A matching radiocarbon date from the kitchen, its close association with the house, and the lens of charcoal, burnt bone, and clinker in the stratigraphy of the previous excavation that extends from the kitchen to the house, indicate that people used the associated burnt area at the time of the original house