

ALASKAN HUNTING TECHNOLOGIES AND CULTURAL ACCOMMODATION AT FORT ROSS (1812-1841), CALIFORNIA

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ABSTRACT

Native Alaskans from a variety of southern coastal Alaskan cultural groups were employed by the Russian American Company at Fort Ross, California between 1812 and 1841. Ethnohistorical accounts suggest that native Alaskan workers mostly relied upon their own technologies. It is suggested, however, that changes in the nature of whaling occurred at Fort Ross. This assertion is pursued through a review of the ethnohistorical data on whaling and a preliminary analysis of the archaeological investigations of the native Alaskan neighborhood at Fort Ross. A concept of "cultural accommodation" is defined in order to suggest how the native Alaskans interacted with the new cultural and geographic environment.

INTRODUCTION

From 1812 to 1841, native Alaskans lived on the northern California coast at the Russian American Company's Fort Ross settlement (Lightfoot et al. 1991; Ogden 1941). They lived in a small community outside the fort walls that has been labeled the "Native Alaskan Neighborhood" (Lightfoot et al. 1991:109). Over the course of 30 years, the nature of the native Alaskan neighborhood appears to have changed from an initial group of 50 to 80 Alaskan sea-otter hunters (Mahr 1932; Ogden 1941; Lightfoot et al. 1991:3) to a pluralistic community composed not only of native Alaskans, but also local Pomo and Miwok spouses, and Creoles of ethnic Russian and native American parentage (Lightfoot et al. 1991:21).

The presence of native Alaskans at Fort Ross was part of a larger trend involving the movement of native people into non-traditional regions in an

expanding world-system economy. Examples of similar situations in the early nineteenth century on the Pacific Coast include Iroquois Indians in the Columbia River Basin with the Hudson's Bay Company, and Hawaiian ship-hands coming to North America (Swaggerty 1988). When viewed in a broader context, the Fort Ross community provides an excellent case-study for examining patterns of cultural continuity and change when a group of individuals on the "periphery" of the world system entered a different environment and were in effect cut off from their traditional spheres of interaction.

I suggest that significant changes in native Alaskan cultural practices occurred at Fort Ross in order to accommodate to the new cultural and geographic environment. The term "accommodation" has crept into common usage in contemporary studies of the Contact Period and can be traced back to earlier acculturation studies (e.g., Voget 1956:249). The term, however, is tied only

weakly and unsystematically to any theories of culture change in the anthropological literature. I suggest that a useful theoretical basis for cultural accommodation can be found in Piaget's (1952, 1970) principles of cognitive developmental theory.

He describes the principles of "assimilation and accommodation" as the mechanisms through which an individual actively creates mental constructs. Assimilation is the process of experiencing the world as seen through one's preexisting mental constructs. Accommodation is a creative modification of mental constructs that allows people to adapt to new circumstances.

If these concepts were applied to changes in culture, cultural accommodation could be defined as an active and creative process of modifying culture in order to adapt to new situations. The nature of this process in the Native Alaskan community at Fort Ross can be addressed from three basic perspectives. Firstly, how did the presence of native Alaskans from a great variety of cultural backgrounds affect the organization and interaction of the native Alaskan community as a whole? This group included Koniag Eskimos, Chugach Eskimos, Aleuts, Tanaina Indians, and Tlingits (Fedorova 1975:12; Istomin 1992). Secondly, what changes occurred in the native Alaskan community that were influenced by contact with non-Alaskan cultures at Fort Ross including Russians, California Indians, Spanish/Mexicans, and even Hawaiians (Istomin 1992)? Thirdly, how did the different geographic environment affect the various traditional practices of the native Alaskans?

It may seem obvious that a typical native Alaskan living in nineteenth century Alaska was part of a family, that was part of a village, that interacted with nearby villages. Any native Alaskan at Fort Ross was removed from this system. In addition, while many of the natural resources along the northern California coast were similar to southern coastal Alaska, the Alaskans had no intimate knowledge of the California landscape. Seemingly subtle differences in re-

sources and physical geography may have had profound effects the Alaskans' abilities to maintain traditional practices.

In order to explore the effects of the new social and geographic environment in detail, I focus on the issue of whaling at Fort Ross. Given the presence of numerous whales along the California coast and the presence of 50 to 80 able-bodied Alaskans who were using traditional technologies to hunt sea otters, one might expect that the Alaskans were also involved in traditional whaling. In fact, Alaskans did conduct whaling at Fort Ross if one accepts the following statement by Kiril Khlebnikov in 1832: "Close to shore there are many whales which the Aleuts hunt. Kuskov said that they found a whale eighteen sazhen long, but that they are usually smaller, from four to five sazhen" (Khlebnikov 1976:125). In order to provide a comparative base for Fort Ross, nineteenth century whaling in southern coastal Alaska is discussed below. This is followed by a discussion potential whaling practices at Fort Ross using the ethnohistorical and preliminary archaeological data.

WHALING IN SOUTHERN COASTAL ALASKA

Ethnohistorical data regarding various early nineteenth century whaling practices of Aleuts, Koniags, and Chugach Eskimo in Alaska are relatively rich (Birket-Smith 1941; Black 1987; Clark 1984; Gideon 1989; Heizer 1941; Holmberg 1856; Kittlitz 1987; Langsdorff 1968; Lantis 1938, 1940; Laughlin 1980; Scammon 1968; Veniaminov 1984; Wrangell 1980). Of primary concern for Fort Ross is "Kodiak-type" whaling (Black 1987) since the majority of Alaskans at Fort Ross were from Kodiak Island. Koniag whaling involved the use of long and narrow slate lances designed to detach from the shaft upon entry into the whale (Birket-Smith 1941:138; Knecht and Jordan 1985:27). A description of a hunt is provided by Gideon in 1804:

The harpoonists go out in their one-man baidarkas and select migrating whales whose meat and fat are softer and more tasty. When such a whale is sighted they approach it to a distance within no more than three sazhen, trying to hit it with the harpoon below the side fin, here known as the last, and then turning away from the beast very carefully and skillfully so that they do not get crushed when the whale dives or that their baidarka does not get capsized by the disturbance. If they can not hit the side fin they try for the backfin or tail. When it is wounded the whale dives to the bottom. If the harpoon has hit home accurately then the whale is bound to come to the surface dead after three days; if the wound is away from the side fin towards the tail then the whale will take five or six days before it floats to the surface - and if the harpoon is in the tail then it will be at least eight or nine days before the whale appears. [Gideon 1989:142]

Slate lances are reported to have been coated with a poison made from the root of monkshood (*Aconitum maximum*) (Heizer 1943a; Lantis 1938, 1940; Black 1987). The toxicity of monkshood has been suggested to vary with geography (Bank 1977) so that the presence of the plant may not directly reflect availability of the toxin. Numerous accounts suggest that whaling was only practiced by a select number of men who acquired whaling rights through descent (Birkett-Smith 1941:138; Heizer 1941; Lantis 1938, 1940). Avoidance taboos were often practiced by these men in the time surrounding a hunt (Birkett-Smith 1941:138; Lantis 1938). It has been suggested that among the Aleut and Koniag, human remains were used as part of the poison by members of a whaling family and kept in a secret cave whose location would be passed along to the next generation of whalers. Other additives were used and kept secret by each hunter (Lantis 1938).

There appears to have been a relatively low retrieval rate of wounded whales that ranged between 10 and 50 percent (Rousselot et al. 1988:172). Wrangell (1980) reports that "of 118 whales wounded off the island of Kadiak in 1831, only 43 were found later." It can be expected that this figure is partly due to villages recovering whales which were struck at distant points along

the coast. In other words, the success of the system depended upon kills being recovered from a dispersed network of villages. In support of this assertion is the observation that slate lance blades bore distinguishing marks of a particular hunter (Dyson 1986:46; Rousselot et al. 1988:172) or hunter's village (Kittlitz 1987:169-170) so that no matter where a whale washed ashore, the kill could be claimed by a particular hunter.

Similar technologies were practiced throughout the Aleutians, except that chipped stone end-blades were common (Black 1987; Rousselot et al. 1988:172). Towing of dead whales to shore is sometimes reported for the Aleutians and Chugach area (Black 1987), as are the preferred use of embayments that were either ritually or physically blocked off to keep whales from escaping (Black 1987).

WHALING AT FORT ROSS

If we begin to consider the actual complexity of traditional whaling practices in southern coastal Alaska, numerous difficulties can be identified in conducting the traditional technologies at Fort Ross. If we accept the references that suggest that Koniag whalers were from select families that acquired whaling skills and equipment through descent, the *ad hoc* group of native Alaskans at Fort Ross may not have included many (or any) actual whalers. Even if this group did contain whalers, it is unlikely that the Koniags, Aleuts, and Alaska Indians at Fort Ross all had the same concept of how whaling was to be conducted. Furthermore, the complex ritual associated with whaling such as the maintenance of burial caves for whaling rituals would have been difficult to establish.

In considering the physical limitations of traditional technologies in the region of Fort Ross, the rocky terrain of the coastline with few deep embayments would have limited the ability to trap whales in locations where they could be retrieved and processed. One of the largest problems may have been the lack of other whaling villages along

the coastline. The Alaskans at Fort Ross could not expect to recover drifting kills from nearby villages. Any whales that were killed would have to be tracked, butchered, and transported by the Fort Ross community or lost. Given the very low returns on wounded whales noted in Alaska, the number of retrieved kills at Fort Ross using the same whaling methods would be extremely low. In addition, the manufacture of Koniag-style whaling lances would have been more difficult at Fort Ross. Slate was not readily available along the California coast, and although a different species of monkshood (*Aconitum columbianum*) is present as far south as Humboldt County in the redwood belt of the California coast (Munz and Keck 1973:91), it is not present in the vicinity of Fort Ross and it has not been established whether or not this variety maintained a toxicity similar to that on Kodiak Island.

In 1824, Khlebnikov makes the following recommendation to the Fort Ross administration:

Hunt whales along the coast and try your best to interest the men in the hunt by promising them some sort of reward in addition to their normal food ration. You will need the spermaceti for your lamps, the sinew for sewing up baidarkas, and the whalebone for tying together the parts of the baidaras. Hence, even if you spend more, you will still make a profit. [Khlebnikov 1990:193; emphasis added]

Given the danger involved in the hunt, and the problems of conducting whaling in California, it should not be surprising that whaling at Fort Ross would require extra incentive. As previously mentioned, however, Khlebnikov (1976 :127) clearly suggests that native Alaskans at Fort Ross were hunting whales by 1832, but the method of hunting is not made clear. An intriguing account of Alaskans involved in whaling along the California coast in 1828 can be found in a French traveler's journal:

When they have agreed to attack a whale, they gather together as many as several hundred of baidarkas to pursue the monster. They act in such a way as always to keep near it, and every time it is

obliged to appear above the water to breathe, they hurl at it all at once a plentiful rain of small harpoons to which bladders are attached. This attack continues until the whale, bristling with harpoons, can no longer overcome the resistance of all these bladders together. It remains struggling on the surface of the water without power to dive, and they finish it then with longer and stronger darts. They make use of these harpoons also for the otter; but a single one is sufficient to arrest the animal. [Duhaut-Cilly 1929:324-325]

This account was discussed by Heizer (1943b) as an "invention" in whale hunting on the California coast modeled after sea otter hunting. What Heizer does not note, however, is that this account may not be a first-hand observation and should only be considered with guarded skepticism. Given that these ethnohistorical accounts may represent the entirety of the written history of whaling practices at Fort Ross, archaeological research is in a relatively excellent position to clarify issues such as continuity and change in the nature of whaling there.

ARCHAEOLOGICAL RESEARCH

The Fort Ross Archaeological Project (Lightfoot 1992; Lightfoot et al. 1991) is providing data that can be used to examine such questions. Hunting tools of traditional native Alaskan design have been identified in the Native Alaskan Neighborhood. Alaskan artifacts most frequently consist of worked bone such as the dart points commonly used to hunt sea otter and whale-bone dart shafts. The recovery of slate artifacts has been relatively limited. Slate artifacts include a small tip fragment of a slate point and a slate end-blade. The slate end-blade approaches the form of an equilateral triangle and is characteristic of a toggling harpoon (Rousselot et al. 1988: 161). The slate tip is too small to characterize the nature of the tool that it came from. So far, no Kodiak-style slate whaling lances have been recovered. In brief, preliminary archaeological investigations suggest that slate was acquired and used by native Alaskans at Fort Ross, but with much less frequency than one would expect on a contemporary

site on Kodiak Island (e.g., Knecht and Jordan 1985). No evidence exists to suggest that slate was used to manufacture long Kodiak-style whaling lances.

CONCLUSIONS

I argue that the social and geographic environment at Fort Ross made it very difficult to conduct Kodiak-style whaling without significant technological and social changes in the nature of the hunt. As a result, some form of cultural accommodation probably occurred. Specifically, techniques that would allow for more immediate killing and retrieval of whales would be more necessary on the California coast. Direct retrieval techniques were recorded among the Aleutians and Chugach (Black 1987) and may have been incorporated into a modified form of Kodiak-style whaling at Fort Ross. If Kodiak-style whaling did occur at Fort Ross, one might expect to find some evidence of the long slate lances characteristically used in the hunt.

An alternative to consider is that the observations of Duhaut-Cilly (1929) are an accurate depiction of whaling at Fort Ross. This would suggest that there was a complete abandonment of the isolated hunter using slate lances and aconite poison and a new type of whaling was created that still did not rely on any European technology. Furthermore, since so many hunters are involved in the hunt, the selection of whalers based upon descent probably would have been removed. Archaeologically, this pattern might be depicted by the lack of Kodiak-style slate lances and a well-defined bone dart industry that may, or may not, be distinguishable from bone darts used to hunt sea otter.

Finally, the adoption of European-style whaling should be considered. This would require the use of toggling harpoons and larger boats than the Alaskan baidarkas. It is known that two large skin-covered baidaras were maintained at Fort Ross (Khlebnikov 1990:194; Mahr 1932:115). These could have been used for whaling, but

specific uses for these boats mentioned in historical accounts are limited to unloading ships, transporting goods to the Farallon Islands, and transporting people to places such as Fort Ross's port at Bodega Bay (Khlebnikov 1990:194). In closing, the actual nature of whaling at Fort Ross remains a mystery. Further archaeological investigation is our best hope for clarifying the issue.

NOTES

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