

Raid, Retreat, Defend (Repeat): The Archaeology and Ethnohistory of Warfare on the North Pacific Rim

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Warfare and violence played an important role in the history and development of complex hunter-gatherer societies on the north Pacific Rim. Wars were waged between islands over 700 km apart and included dozens of villages within and between ethnic groups. Wars were generally fought for revenge, status, over women, and rarely, over critical resources. Warfare was so ubiquitous in the later prehistoric sequence that it must be considered central to the development and organization of north Pacific society. © 1998 Academic Press

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INTRODUCTION

For several thousand years before the arrival of the first Russians and Europeans, warfare played a critical and vital role in the development and maintenance of north Pacific society. The archaeological and ethnohistoric literature is replete with data on the prevalence of violent conflict in the region. Here we will attempt to summarize these disparate and scattered sources and to place these regional conflicts in the context of understanding the development of Aleut (referred to as Unangan) and Koniag or Pacific Eskimo (referred to as Alutiiq) society.

Violence and warfare are important to understanding the histories of village-based societies. Although it is now assumed that warfare is not necessarily endemic to the human condition (Ferguson 1998), the prevalence of violence, or at least the potential for violence, does have a long evolutionary history (Daly and Wilson 1988; Frayer and Martin 1998; Keeley 1996; Wrangham and Peterson 1996). Recent surveys of archaeological evidence for violence and warfare have demonstrated that in every society for which there are sufficient data, at least one period in the history of that human society

demonstrates evidence for conflict¹ (cf. Haas and Cremer 1993; Lambert 1994; Maschner 1996; Redmond 1994). While many scholars have recognized the presence of conflict in the north, both in the archaeological record and in the ethnohistoric literature (Burch 1974; Fienup-Riordan 1994; Maschner 1992, 1998; Moss and Erlandson 1992), this pandemic phenomenon has largely been ignored in the Arctic and Subarctic as a critical factor in the development of northern societies. Perhaps a primary reason for this neglect is that in many areas of the world it has been shown that native conflicts increased after European contact with the introduction of new weaponry and competition for western goods (Ferguson and Whitehead 1992) and this certainly played a role on the Northwest Coast (Ferguson 1983, 1984a; Maschner 1998; Wooley 1984). Yet,

¹ A number of recent studies have argued that there are some groups that have no evidence for violence or warfare. Examples include the Semai (Robarchek 1990) and the Buid (Gibson 1990). It must be recognized that these groups are also bounded by state level societies and the fact that they are peaceful may have more to do with external pressures than any internal "peaceful" nature.

this does not seem to have been the case on the north Pacific, leading us to assume that researchers have misconstrued the fact that warfare ceased rather than escalated after contact to mean that warfare, although present, was not an important facet of north Pacific life. In the theoretical literature, northern cultures are usually upheld as the exceptions in discussions about warfare and violence (Briggs 1970; Irwin 1990).

The Aleutian Islands form the world's longest volcanic island archipelago. Beginning on the lower Alaska Peninsula, this 1400-mile expanse is the home of the Aleut, who today call themselves Unangan, or "the people" (Laughlin 1980:4). At Russian contact, there were approximately 12,000–20,000 people stretched over 247,000 square kilometers of land, or 4.6 people per mile of coastline (de Laguna 1956:256; Lantis 1984:163). Traditionally, the Unangan depended solely upon the sea in this treeless tundra, devoid of terrestrial mammals save for the easternmost island and the lower Alaska Peninsula (Lantis 1984). They occupied semi-subterranean dwellings in strategically located permanent villages inhabited by a few households to over 1000 people. Households consisted of four to twelve families organized corporately. At historic contact the Unangan were ranked with nobility, commoners, and slaves (Townsend 1983).

To the east were the Unangan's closest neighbors and archenemies, the Koniag, who are the historic residents of the Kodiak Archipelago and adjacent areas and who today call themselves Alutiiq. An estimated 9,000 or more people resided over 287,000 square kilometers at historic contact (Clark 1984:187; de Laguna 1956). The Alutiiq were organized into corporate households that were ranked within the village. A diversity of subsistence practices ranging from intensified salmon harvesting to whaling varied by location. The Alutiiq speak a language and have a ceremonial complex closely related to the Yupiit Eskimo of the eastern Bering Sea. Inhabiting a landscape just north

of the Alutiiq region and northeast of the Unangan, the Yupiit played an important role in the political world of the north Pacific.

This paper is an overview and discussion of the current state of our knowledge on the archaeology and ethnohistory of Unangan and Alutiiq warfare, which includes the Aleutian Archipelago, the Alaska Peninsula, the Kodiak Archipelago, and the greater Gulf of Alaska (Figure 1 [see Figure 1 for all place names]). Other than Moss and Erlandson's (1992) discussion of north Pacific refuge rocks, there have been no overviews of warfare among these societies. We begin with an overview of the modern literature on conflict in village-based societies. We then integrate both ethnohistoric data with recent archaeological discoveries in order to develop an explanation for conflict in this region.

VILLAGE-BASED WARFARE IN THEORY

Warfare is defined as the use of organized force between independent groups. This definition is a generalized version of those described by McCauley (1990:1–2), based on the writings of Carneiro (1970), Wallace (1968) and others. In discussing conflicts in non-industrial societies, it is often difficult to separate interpersonal violence from warfare since a conflict between two individuals often escalates into a war between villages or other corporate entities. While evolutionary psychologists have recognized that the innate ability to be individually violent is different from the ability to form a coalition with a goal of aggression (Tooby and Cosmides 1988), for village-based societies founded on corporate models that are generally kin-based, this distinction is not critical to this discussion as the problems of the individual are, in evolutionary terms, the problems of his or her kinspeople (Maynard-Smith 1964).

Anthropological investigations of village-

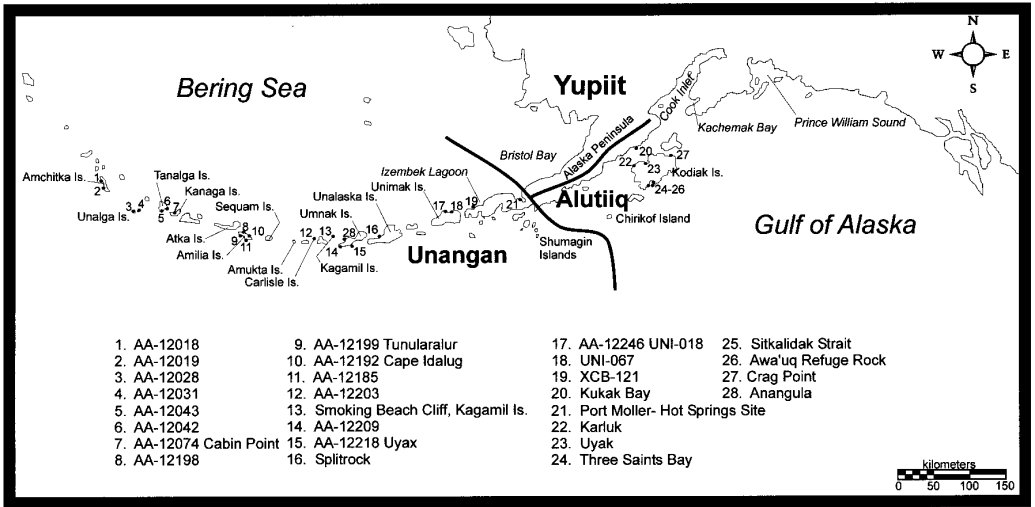


FIG. 1. Map of the north Pacific Rim indicating places discussed in the text. The map also indicates the historic boundaries between the Unangan, Alutiiq, and Yupiit peoples.

based warfare have escalated in the last few years. A voracious dialog between Brian Ferguson and Napoleon Chagnon has resulted in a theoretical boundary drawn in two primary directions (Chagnon 1988, 1989, 1990; Ferguson 1989, 1990a, 1990b, 1992, 1995). These theories generally fall under the headings of materialist approaches (Ferguson 1984b; Harner 1977; Harris 1979, 1984), and Darwinian explanations (Chagnon 1988; Daly and Wilson 1988; Wrangham and Peterson 1996). A third group takes a historical (Carman 1996; Gibson 1990; Robarchek 1981, 1990) and post-modern approach (Whitehead 1990) and while the hermeneutics of war have been shown to be important, they are not dealt with in this discussion.

Materialism has traditionally been seen as an important aspect of Darwinism, but because of the Chagnon-Ferguson debate, materialism has been narrowed to a separate theoretical perspective. McCauley describes materialistic theories of conflict, and particularly Ferguson's view, as dealing specifically with conflict over "material resources such as land, food, and trade goods" (McCauley 1990:5) and this is reiterated throughout the

anthropological literature on warfare (Ferguson 1984c, 1990a, 1995; Haas 1990a, Haas and Creamer 1993). In fact, Ferguson is adamant that there are no reasons where one would risk one's life except in cases where there was a desperate need of land or food (Ferguson 1983, 1984b, 1984c:269, 271, 1990, 1995). In this view, warfare is considered important for the redistribution of resources, people, and the balance between them and is seen as a direct result of resource stress and overpopulation. This theory has proven useful in a number of areas, especially if there are well-preserved skeletal data where one can actually measure ill health and resource stress. It has been demonstrated, for example, that in some archaeological sequences, such as in the Santa Barbara Channel, conflict does occur in conjunction with negative environmental perturbations, and health stress (Lambert 1993, 1994, 1998; Lambert and Walker 1991). But it is difficult to determine if poor resources are cause for conflict or if any significant stress (environmental or otherwise) creates social or political conditions where people are more likely to go to war. Ferguson has gone even fur-

ther. To bolster his narrow view of materialism in cases where there is little evidence of resource stress, he has invoked western contact and competition for western goods such as machetes (1995) or "trade goods" (1984b). Thus, he explains historic Northwest Coast conflicts as a response to competition for western trade and control of trade routes (1983, 1984a), yet he does not even attempt to explain why men would risk their lives for goods that they have spent the last 5000 years doing just fine without. Why would an adult Tlingit noble go to war over metal goods, glass beads, or furs? Not because they were critical basic resources analogous to food or land, but because access and possession of these goods was directly tied to status and prestige. This will become clear below.

Darwinian explanations are founded in the notion that people participate in conflict because it is in their or their kingroup's self-interest to participate (Chagnon 1988, 1990; Daly and Wilson 1988; Maschner 1998; Wilson and Daly 1985; Wrangham and Peterson 1996). Darwinian explanations recognize that land, food, and other critical resources are important motivations for war, but also recognize that these motivations should lead to increased fitness (Chagnon 1990:81-83). The Chagnon-Ferguson debate has led Chagnon to distinguish between somatic and reproductive conflicts. But this is a response to Ferguson's continued assertions that conflicts over women or revenge are not realistic motivations for war (1984b:37-42; 1990a:29-30). It has been demonstrated that status and prestige, access to mates, and revenge are just as critical to the success of many societies as are foodstuffs (Chagnon 1988; Daly and Wilson 1988; Maschner 1996, 1998; Wilson and Daly 1985). This can be seen on the Northwest Coast where the majority of the societies participating in conflicts were not the most needy, as materialist explanations would expect, but the most powerful, the ones in a position to be aggressive (Maschner 1992, 1998).

A number of recent studies from evolutionary biology and evolutionary psychology have shown that materialist and Darwinian motivations for conflict and war, when combined, explain many modern patterns of violent behavior (Daly and Wilson 1988; Tooby and Cosmides 1988; Wilson and Daly 1985; Wrangham and Peterson 1996). All recent studies of conflict and violence in both industrial and non-industrial societies have found that young males striving for status and prestige can be identified as the underlying theme. This is seen in the male propensity for risky activities (Wilson and Daly 1985), male participation in gang violence (Palmer and Tilley 1995), and participation in village-based warfare when there is no anticipated change in access to land or food (Chagnon 1988; de Laguna 1983; Heider 1970; among many). Even in cases where there is a clear land or food related goal, males participate because it is in their self-interest to do so, that is, they expect these behaviors to put them in a better social or economic position. In most cases, we would expect this to translate into increased fitness, or at least it would have translated into fitness at some time in our evolutionary past when this ability to weigh the costs was developed (Cosmides, Tooby and Barkow 1992). In fact, the male propensity for violent behavior must have had reproductive consequences in our evolutionary past or that behavior would not exist today (Tooby and Cosmides 1988; Wrangham and Peterson 1996).

This paper relies on two fundamental assumptions. The first is that all humans have the potential to be violent, whether as aggression against a weaker opponent, in defense against an aggressor, or more basically, as a parent might defend an offspring. This innate ability is constrained by rules of social conduct that determine the conditions under which aggression or violence is considered appropriate.

Our second assumption is that humans, particularly males, have a built-in mecha-

nism for status striving (Alexander 1979; Goldschmidt 1991; Sahlins 1959; and many others). This is founded in the fact that males in all higher primates (Bonobos being the exception) use aggression as a means of increasing and maintaining status (Wrangham and Peterson 1996).

We recognize that the conditions under which males choose to participate in conflicts today, as in our recent past, are much different from the conditions faced by our hominid ancestors when these behaviors were first developed (Barkow, Cosmides, and Tooby 1992). However, we can expect that the ultimate motivations are the same, especially in that the underlying themes of conflict will be status and prestige for the individual or group (kingroup or village). This may include the acquisition of land or food, but will also include raiding for women, wars for the creation or maintenance of status and prestige for young males, or wars over revenge from sometimes-trivial misdeeds, insults, or other events (Wilson and Daly 1985). In fact, it has been recently demonstrated that the most significant correlate of a society's propensity to go to war is the number of disenfranchised males in that society (Wiener and Mesquida 1997). That is, the proportion of a society with no alternative outlets to status. The question becomes, what are the conditions where young men will choose warfare as their most viable outlet to status and prestige? It is with this question and framework that warfare on the north Pacific will be addressed.

GENERAL PATTERNS

A number of important patterns of warfare in non-industrial societies can be summarized from the recent literature (Chagnon 1988; Ferguson 1984c; Ferguson and Whitehead 1992; Frayer and Martin 1998; Haas 1990b; Lambert 1994; Tkaczuk and Vivian 1989; Tooby and Cosmides 1988; Van Der Dennen and Falger 1990; Wrangham and Pe-

terson 1995). These patterns are important to explaining conflict in the archaeological record and provide the basic background material that can be used to build more powerful explanations of village-based warfare.

Who participates in warfare? Individuals most likely to kill and be killed are males between the ages of approximately 15 and 25–30 (Daly and Wilson 1988:171; Lambert 1994:140). This is the critical age where individuals are striving for status and seeking to increase access to mates. Older males are inclined to participate less in warfare because they have more to lose. Males tend to form coalitions to successfully defend their territories and defeat male enemies (Tooby and Cosmides 1988; Wrangham and Peterson 1996). Interests for one kin member can easily become important concerns for all. Unrelated males may form coalitions because the costs of opting out might be higher than cooperating. Larger groups have higher success rates (Maschner and Patton 1996) because the overall costs of death are lower (Daly and Wilson 1988; Tooby and Cosmides 1988).

Although there are notable exceptions (e.g. Davis-Kimball 1997), women's participation in warfare is rare and, in reference to the Unangan, Lydia Black states that "women, as a rule, were not allowed to handle weapons or sport male attire" (1984:68). Evidence for spouse abuse, in the form of skeletal injuries on females, rises during periods of warfare (Lambert 1994:116–119; Lange 1996). It has also been argued that the stress of warfare, or at least the perception of stress, leads to increasing evidence of spouse abuse (Ember and Ember 1992). Generally, the capture of women was one of the spoils of victory (Chagnon 1988). The object for some wars in non-industrial societies was to entirely annihilate the enemy (e.g. Burch 1974:8), but this seems a less common motivation, probably because it has a much higher individual risk than wars where a single enemy death is considered a victory.

Scale is an important component in under-

standing these conflicts. There are few archaeological data for violent conflict among egalitarian hunters and gatherers. Data from modern mobile foragers indicate a rather high level of homicide (e.g. Ember 1978, Lee 1979), but little evidence for warfare among recently studied hunter-gatherers has been recorded. There is a growing data set from the early hunter-gatherer archaeological record, and it appears that in contexts where there is a large sample of human burials, there is often evidence for warfare. Two excellent examples are Wadi-Kubinaya, dating to 13,000 BP, where 41% of 59 individuals had embedded projectiles (Wendorf 1968), and Ofnet, dating to approximately 7,500 BP, where most of the individuals in a mass grave died a violent death (Frayer 1998). Examples of individuals with evidence for violent death are increasing in the literature on the Upper Paleolithic (Bahn 1997:24) and Mesolithic (Price and Feinman 1993:178–179), as well as in North America (Slayman 1997). In these contexts, the size of an aggressive group is limited in most cases to the number of young adult males in that group, or the ability of those males to form alliances with other groups of males. So scale must be considered in any discussion of evidence for conflict in the archaeological record.

Warfare can have significant effects on settlement, subsistence, and political organization. The organization of households and villages often seems to change with increasing conflict. Maschner demonstrated that on the northern Northwest Coast both the size of the villages and the size of the individual households increased in conjunction with an increase in levels of conflict (1992, 1998). Expanding village size adds to the numbers of warriors available for a conflict and makes the village less vulnerable to attack. Increasing household size, a measure of increasing corporate group size, is a proxy measure of the growing kin group and increasing status differences—both critical in times of internecine conflicts.

Interregional conflicts tend to be most visible on the frontiers between ethnic groups. *Intraregional* conflicts are most visible in populous core areas near the center of a cultural region. The effects of warfare on political boundaries can be seen in a number of North American examples such as fortified Chaco Anasazi sites or fortified Mississippian sites, both of which are more common on the frontiers than in core areas (Haas and Creamer 1993; Rogers and Smith 1995). For example, one would expect to see evidence for Unangan-Yupit or Unangan-Alutiiq conflicts on the lower Alaska Peninsula and Shumagin Islands and evidence for conflicts between Unangan groups in the Unalaska-Umnak area. In the Kodiak archipelago, we might see the most evidence for intraregional conflict along the straits between islands and evidence for interregional conflict on the island-group periphery. We can expect these boundaries to change with the changing levels of political integration and alliance. Contrary to materialist expectations² (as described above, Ferguson 1984a, 1984b, 1990a), warfare seldom results in any change in territory or access to critical food resources among village-based societies (de Laguna 1983; Maschner 1998) (although it often does with states).

Evidence for violence and warfare is not constant or continuous throughout the history of any archaeological culture (Ferguson 1998; Haas and Creamer 1993; Lambert 1994, 1998; Maschner 1992, 1998). Warfare is often more intensive at chronological markers. Lambert (1994, 1998; Lambert and Walker 1991) has shown that conflict is most common near the Early to Middle Period transition and the Middle to Late Period transition

² One reviewer pointed out that the implication here is that materialist explanations for war are so simplistic that they expect a simple relationship between warfare and the distribution of food and territory, ignoring social and political dynamics. Unfortunately for anthropological theory, this is indeed the case. See for example Ferguson 1984b or Harris 1984 for rather detailed discussions of this view.

along the Santa Barbara Channel. Warfare at transitions is also seen in the Southwest (Haas and Creamer 1993; Wilcox and Haas 1994), Polynesia (Emory 1979; Frost 1979), and the eastern Woodlands (Milner, et al. 1991). Evidence for violence often decreases between these changes in chronology. This indicates that there is more than simply a change in material items when archaeologists identify a new phase or period. This has important and obvious implications for culture change.

On the other hand, even in cases such as the Santa Barbara Channel mentioned above, patterns of warfare, once begun, are continuous; it is the level of intensity that changes. On the Northwest Coast the most substantial evidence for conflict begins at a chronological change, but intensifies throughout that phase until the whole system is oriented around the construction of defensible communities (Maschner 1992, 1997, 1998). In both cases, warfare appears to usher in rather substantial changes in economy, settlement, politics, and social organization.

These patterns are not inclusive of all of the conflicts we have identified in world prehistory, but they are the most relevant for this discussion. These patterns are also not meant to explain all of the variability in North Pacific warfare but rather, they are meant to provide a baseline and context for further investigation and discussion.

THE ARCHAEOLOGY OF VIOLENCE AND WAR

Warfare and violence in prehistory are identified using four primary categories of data. *Skeletal evidence* is the most conclusive (Lambert 1994; Lambert and Walker 1991; Milner et al. 1991). Depressed skull fractures, forearm parry fractures, fractures to the nose and face from club blows, and most importantly, the presence of stone projectiles embedded in skeletal elements are irrefutable data. Lambert (1994:132) found that as

many as 21% of adults from cemetery samples on the coast of California have embedded projectiles in the late Middle Period 1200 years ago. Sub-lethal skeletal injuries from club blows appear earlier in the Middle Period. These kinds of injuries can be seen in the Santa Barbara area over 3500 years ago (Lambert 1998), in the desert Southwest 1200 years ago (LeBlanc 1997; Wilcox and Haas 1994), and on the North Pacific Coast 3000 years ago (Cybulski 1992). Throughout North America skeletal evidence for violent conflict is found spanning at least 9300 years (cf. Slayman 1997).

The second means for identifying warfare is the presence of *defensive fortifications*. Palisaded enclosures on promontories, on inaccessible bluffs or cliffs, and around large villages were common defensive measures, especially in coastal Alaska, Canada, and the Pacific Northwest for the last 3000 years (Maschner 1992, 1997; Moss and Erlandson 1992), the Midwest and Southeast around 700–900 years ago (Gramley 1988; Steinen 1992), the Southwest 600–1100 years ago (Haas and Creamer 1993), and the eastern Plains 500 years ago (Bamforth 1994; Caldwell 1964; Kay 1994). Offshore refuges and hidden or inaccessible site locations are also found on the north Pacific. Moss and Erlandson (1992:78) discuss what we might expect to see in defensive sites. They “found little artifactual evidence clearly diagnostic of fort occupations” (1992:78). Therefore, we should expect to find the same remains in these sites as in the villages and they can be used at any time of the year. Other defensive measures include the use of passageways and side compartments of the semi-subterranean dwellings for escape and hiding during raids (Lantis 1984:177; Laughlin 1980:52).

The third line of evidence is the identification of *material items of war*. These include body protection items like the manufacture of wood, bone or ivory armor found around the north Pacific and the Arctic over the last 2000 years (Burch 1988; Collins 1937; Dekin et al. 1988; Geist and Rainey 1936; Jordan

and Knecht 1988; Knecht 1995; Laufer 1914), and shields, reported on the Plains and all over western North America beginning about 1500 years ago. Data that are more equivocal are the tools of warfare like clubs, bows and arrows and projectiles. Stone war clubs have been identified in the Northwest (Coupland 1989; Fladmark 1982; MacDonald 1989; MacDonald and Inglis 1981), and wood and bone clubs have been unearthed in the Aleutians (Hrdlicka 1945:133–134). The bow and arrow, especially the backed recurve bow, seems to have been introduced to North America in the last 2000 years and is most often found in the context of increasing warfare (Blitz 1988; Lambert 1994; LeBlanc 1997; Maschner 1992; Moratto 1984). Fragile arrow points that have been found on islands where there are no terrestrial mammals are considered to have been designed for killing humans.³ Workman states

³ There are basically three kinds of projectile weapons on the north Pacific. 1) Toggling harpoons and heavy, barbed bone harpoons (sometimes with stone inserts) are constructed to attach the animal to the hunter, usually by a rope. While convenient if they kill the animal outright, they are usually used to haul in the animal where it is dispatched with a club or spear. These projectiles must be heavy and strong to prevent breakage when used. Because of their weight they were most always launched with a throwing board. The throwing board is also much more convenient for use in a kayak as the other hand can maintain stability with the paddle. 2) Stone projectiles that were used to arm darts to kill mammals outright are another form. These are usually large, as they must penetrate a considerable distance into the animal to be effective. Again, these were launched with a throwing board for the same reasons as the first type, although some may have been used as thrusting spears for bears or beached sea mammals. 3) The third type is thin fragile stone points and small bone points with thin fragile barbs. Unlike hunting mammals, the goal of most village-based wars is to injure an enemy, not necessarily kill outright. Since retrieval of the dead is not normally a requirement by the victor, any wound inflicted might eventually lead to death, especially without antibiotics. Thus, violence against other humans is often done with thin or fragile projectiles that either break off in the wound or are difficult to remove. There are no animals on the north Pacific that could be effectively hunted with these types of weapons. Because of the superiority of a throwing

board for launching projectiles from a Kayak, if one finds evidence of the bow and arrow, it was probably used on humans. This is the case throughout the coastal arctic: the bow was used on caribou and humans. One reviewer questioned whether or not the bow and arrow might be used on birds. Perhaps, but in most of the north Pacific region, a long dart with many barbs attached to the sides and cast into a flock was more effective than a small arrow. Further, the most common means of getting birds was with nets. While Davydov states that bows were used against Kodiak Brown bears, those of us who have dealt closely with these animals doubt the effectiveness of the north Pacific bow for having any effect beyond irritation.

this first for his collection of brittle, basalt points on Chirikof Island. The points are interpreted to have been for mounting on arrow shafts. Bows and arrows cannot be accurately shot from a kayak so they must have been used on land. “Non-human targets for the archers of Chirikof [Island] are, and presumably were, quite rare” (Workman 1969:123–124). Given that there are no terrestrial mammals in the north Pacific area of focus, save for caribou and bears on the Alaska Peninsula and Unimak Island, and bears in the Kodiak archipelago, we agree with Workman that in island sites where these have been found, the targets were most likely other humans. Levashev presents an early historic drawing of an Unangan male’s tool kit (Liapunova 1996). This kit includes body armor, shield, bow, and arrows, as well as tools more generally associated with subsistence hunting.

The last line of evidence is iconographic. Evidence for warfare is seen in Australian rock art (Taçon and Chippindale 1994), in Mesolithic/Neolithic paintings in Spain (Beltran 1982:44–45), and perhaps in decoration on textiles, ceramics (LeBlanc 1997) and other sources. Examples of petroglyphs are the most obvious. There is little interpretation necessary when two groups of men are painted shooting arrows at one another.

Other archaeological data such as radical shifts in settlement, changes in subsistence, or changes in the kinds and origins of trade goods may be circumstantial evidence for

conflict, but difficult to distinguish from other possible explanations. Various ethnographic descriptions suggest other classes of evidence for warfare. For example, Gideon's (1989:42–44) details surrounding preparations for Alutiiq warfare, which include everything from the ritual menu serving an assembly of warriors in a kashim (men's house) the night before to feasting behavior are valuable to our illustration, however the archaeological remains of such activities cannot be distinguished from other behaviors and are not useful in making predictions.

It is within this archaeological, anthropological, and evolutionary context that we will attempt to place the archaeological and ethnohistoric data of the north Pacific. These behavioral patterns and data sources provide the foundation for making certain assumptions about the past and focus our investigation along what we consider productive lines of inquiry. The rest of this discussion deals specifically with the north Pacific region.

THE ARCHAEOLOGY OF NORTH PACIFIC WARFARE

Archaeological Background

The archaeology and prehistory of the Kodiak and Aleutian archipelagos have been well described in a number of recent overviews (Clark 1992, 1994; Dumond 1987; Fitzhugh and Crowell 1988; Hausler-Knecht 1993; Jordan and Knecht 1988; McCartney 1984). Here we provide a brief summary of the regional chronologies and a discussion of some of the diachronic organizational changes that occurred over the last 3500 years. Although this may be redundant with more detailed studies, a brief overview is necessary in order to place the following archaeological data on warfare and violence in a behavioral context.

Other than a few isolated cases, such as Anangula in the Aleutians at 8500 BP (Aig-

ner 1976, 1978; Aigner and Del Bene 1982; McCartney and Veltre 1996) and the Rice Ridge Site on Kodiak Island at 6000 BP (Clark 1992; Hausler-Knecht 1993), the first widespread occurrence of sedentary villages takes place about 5500 years ago in the Aleutian region and 3500 years ago in the Kodiak archipelago (Clark 1984, 1992; Fitzhugh 1996; Maschner et al. 1997; Maschner n.d.). The early Aleutian villages are widely variable in size and organization. There are no phase or tradition names associated with this time period but the villages generally fall under the beginning of the Aleutian Tradition (5000–4000 BP to contact) as defined by McCartney (1984:124).

The Kachemak Tradition of the Gulf of Alaska (3500–1000 BP) and the first 4000 years of the Aleutian Tradition (5000 to 1000 BP) are represented by small villages with a number of independent households. These single-family household villages were probably egalitarian though not devoid of leadership (Maschner and Hoffman n.d.; Steffian 1992). In both cases, we have rather small groups of house depressions with storage facilities, evidence for long-distance exchange, marine or riverine economic strategies, and sedentism (Fitzhugh 1996; Steffian 1992). Populations in both regions appear to be low and there is little evidence for status differences (Jordan and Knecht 1988).

After approximately AD 1200 to 1500, there were radical changes in both regions. House size quadrupled, village size increased dramatically, there were major shifts in tool technology, and there were changes in the subsistence economy and storage facilities (Fitzhugh 1996; Hoffman 1996; Jordan and Knecht 1988; Knecht 1995; Maschner and Hoffman 1994, n.d.; Saltonstall 1996). There appears to have been a change in ceremonialism (Jordan 1994; Knecht 1995) and an increase in the size of the corporate group. There is substantial archaeological evidence for ranked hereditary leadership and an emerging class structure (Fitzhugh 1996; Jordan and Knecht 1988;

Maschner and Hoffman 1994). Each household was home to a lineage with one or more headmen presiding over the politics under that roof. The number of households was equal to the number of village headmen (Townsend 1983:123).

Rank is seen in part through the increase in house size. After 900 BP, a transition occurred where one or more corporate lineages began occupying a single large dwelling instead of the previous single family houses (Maschner and Hoffman n.d.). If ranking can be measured on the basis of house floor areas (Acheson 1991; Coupland 1985, 1988; Maschner 1991, 1992), then we start to see a ratio of 1:3 to 1:6 ranked to non-ranked houses after about 900 BP (Maschner and Hoffman 1994). Headmen with larger local kin groups (and thus, larger houses) had higher status (Townsend 1983:124). There are finite limits to the number of blood relatives one could have so slaves could be added to the family to enhance the headman's position. A headman's influence would reach farther if consanguinity were spread out, thus larger kin groups often intermarried (Townsend 1983:124–126; Veniaminov 1984:76–77).

The exact reason for these changes have not been fully investigated. Why these changes should occur in both regions simultaneously in the context of completely different languages, social organizations, or ceremonialism is an important stimulus for this paper. It should be recognized that this is the period of the expansion of Western Thule Tradition traits into the Bering Sea, Alaska Peninsula, and the Kodiak region and the point where all three of those areas begin to look much like the historic Yupiit societies (Dumond 1988). These changes led to the Koniag Tradition on Kodiak Island (AD 1200 to contact) and the later occupations of the southern Bering Sea.

On the lower Alaska Peninsula we have Yupiit style houses in the midst of obviously Aleut houses and the presence of increasing amounts of ground slate and some pot-

tery—both characteristic of Yupiit or Alutiit material culture (Maschner 1996; McCartney 1974). This occurs in concert with the transition from the Kachemak Tradition to the Koniag Tradition in the Kodiak region. The expansion of Yupiit or Alutiit peoples down the Alaska Peninsula must have created, at least in part, conditions that precipitated these changes. These changes in political, village, and household organization probably had a substantial impact on the individual's access to status and prestige. Any change in access to status for young males generally leads to an increase in choosing violence as the primary outlet.

Skeletal Evidence for Conflict

Few analyses have been done on North Pacific skeletal materials oriented toward identifying evidence for trauma. Scattered evidence demonstrates that some form of violence occurred, although it is difficult to interpret. Nearly all of the skeletal evidence for violence prior to AD 1000 falls in the Kachemak Tradition in the Gulf of Alaska while all of the skeletal evidence that occurs after AD 1000 is found in the Aleutian region. This is not necessarily a product of prehistoric behavior but more likely a product of the work that has been done in these regions.

The most complete analysis of Kachemak material is Simon and Steffian's study of human remains from the Crag Point and Uyak sites on Kodiak Island that show cutmarks, perimortem breakage, dismemberment, drilling, and the cutting of women's and children's bones. They argue that this may be related to violent encounters, or that it may be better explained as ritual processing or medical examination (Simon and Steffian 1994:97). Similar patterns, although much less extensive, can also be seen in a recent re-analysis of the Kachemak skeletal material from the Three Saints Bay site curated at the University of Wisconsin (Park 1996). Simon (1992:146) rejects the possibility that this

kind of breakage could be a product of cannibalism due to the lack of historical accounts of such activities and instead suggests that these skeletal remains are the result of a poorly understood mortuary custom. Melbye and Fairgrieve argue, however, that there are no data "which support a mortuary custom of slashing or chopping the deceased, defleshing and dismembering the body, splitting long bones, and scattering the remains in a random fashion about the site" (Melbye and Fairgrieve 1994:57–58). Their analysis of the remains of 35 Inuit women, children and elderly found at the Saunaktuk site north in the Mackenzie Delta exhibit the same kinds of cutmarks as in the Kachemak material. The randomly scattered Saunaktuk remains exhibit evidence of facial mutilation, decapitation, skinning the head and removal of tissue, splitting, gouging, and the severing of hands and feet, and they attribute these data to violent death.

Urcid (1994) also argues against cannibalism and violence during the Kachemak Tradition in his reanalysis of the Uyak skeletal material, arguing that there is no evidence of massacres and cannibalistic feasts as described by Hrdlicka (1944:149, 155, 293). While he makes a rather good argument against cannibalism, he forgets to discuss violence. In fact, in his attempt to refute cannibalism he offers a number of ethnographic examples of decapitation for reasons other than cannibalism. His examples include the Jivaro (Urcid 1994:103), who collected heads of their dead captives and kills in war, and Nazca trophy heads (1994:120); these are two of the best examples of violence in the anthropological record and are patterns clearly seen in the Kachemak data.

Both Simon and Steffian (1994; Simon 1992) and Urcid (1994) discuss the Kachemak tendency to perforate bones at joints with the goal of rearticulating the body parts. These supposedly would be kept as powerful symbols of either important individuals or enemies killed in war. These occur in a variety of patterns and contexts and

are difficult to explain. Workman argues that the various patterns of decapitation, dismemberment of the post-cranial skeleton, and secondary interment indicate a complex mortuary pattern, not violence (1992:21–24). We tend to agree that most of the remains do argue for mortuary behavior. Nevertheless, severed heads are a different matter. Although there are ethnographic examples of heads being used in ceremonial contexts, the overwhelming majority is in the context of violence and warfare. Keeley states that "by far the most common and widely distributed war trophy was the head or skull of an enemy. The custom of taking heads is recorded from many cultures . . . more than any other body part, the head of a vanquished foe was an unequivocal token of the individual that had been overcome" (Keeley 1996:100). This can also include scalping. Many of the disarticulated skulls have cutmarks at the base or show clear signs of scalping (Simon and Steffian 1994:89; Urcid 1994:107, 109, 111, 113).

Hrdlicka states that there were frequent signs of violent death in the Kachemak Period (1944:228). Evidence of death by stone hammer, stone club, bone poniard and arrow were found, and he argues Kachemak peoples were warring within and between communities. The Uyak Site shows evidence for a great massacre where survivors subsequently gathered and covered the bodies in various deposits. He states that the mass burials

were thought at first (1931–1932) to have been ordinary secondary burials, but their number (thus far eight larger ones have been discovered), the completeness of the bodies, their absence nearly everywhere else in the deposits except at the one level, the mixture of bodies (females, some males, youngsters), the weapons found with, and even still in, the skulls and skeletons, the occasional smashed skulls, mostly an absence of any order in the burials and of any mortuary offerings—all point to a massacre rather than to an epidemic or a regular form of secondary burials. (Hrdlicka 1944:228–230)

Simon and Steffian counter this argument

with new data from the Crag Point and Uyak sites. They argue that some of the mass burials acted more like crypts where bones were added or removed as part of a mortuary complex (1994:96–97). But they state that some of Hrdlicka's mass burials are not mortuary crypts and warfare cannot be ruled out as an explanation for some of the variability in the condition and treatment of the remains (1994:97).

Hrdlicka also reports that of the 190 skulls that could be identified as male or female (using many criteria including post-cranial remains when available), 125 are female. A skeletal population that is 66 percent female is unusual. Widely disparate sex ratios can indicate a number of differential burial practices, especially warfare, as Cybulski found for Northwest Coast skeletal populations (1992:48–50). Also interesting are the age categories described by Hrdlicka. Although it is quite difficult to age cranial remains, the fact that over 40 percent of the males died before age 40 (Hrdlicka 1944:395) is unusual and symptomatic of conditions where males frequently die for reasons other than natural causes (see Lambert 1994:133–136 for a discussion of the ages most likely to have evidence for violence).

The best evidence for warfare and violence during Kachemak times is direct evidence that an individual died violently through either a body wound or a blow to the head. Evidence for violence is present as depressed skull fractures in six individuals from Uyak (Urcid 1994:119) and there are possibly two individuals with embedded projectiles (Hrdlicka 1944:228). These are only meaningful in the context of the total number of individuals where these types of wounds could actually be recorded, and these data are not available. But two individuals with direct evidence of violent death, out of perhaps 100 (a liberal estimate) complete enough to measure the cause of death, is quite high. For example, when computed as a crime rate, this translates into 20,000 violent deaths per million. In comparison,

Detroit, one of the most violent cities in the United States, has substantially less than 1,000 homicides per million (per year) (Daly and Wilson 1988:18–19). Two-percent violent deaths are small compared to many village-based societies (Keeley 1996:92; Lambert 1994, 1998).

The later prehistoric periods are represented by two examples, both from the Aleutian region. Skeletal evidence that gives a clear example of Alutiiq and Unangan warfare was found in a late prehistoric village site (UNI-067) in Peterson Lagoon on Unimak Island (Hoffman 1995). A side room of a house yielded a buried Unangan skeleton with an Alutiiq (Bluffs Phase, AD 1550–1650) point next to damaged cervical vertebrae.

Weyer (1929) describes the primary interment of four “mummies” found in a driftwood sarcophagus buried on the summit of Splitrock off the north coast of Unalaska Island on the Stoll-McCracken Arctic Expedition of 1928. One male body was buried more elaborately with gut and birdskin garments, spear shafts, a harpoon and a wooden “shield-like” object. The female body was buried in a similar fashion with an infant in a gut sack lying near her head. The other male body clearly suffered a violent death where the skull was crushed and perforated with a one-inch hole (1929:235).

Weaponry

The technology of warfare has been recovered from caves and excavations alongside skeletal material. Caves on the south end of Kagamil Island yielded over sixty Aleutian mummies plus thirty separate skulls, connecting death with the weapons of war. The remains of men, women and mostly children were found in caves and crevasses with weaponry, clothing, wooden and bone clubs, shields, and wooden slat/rod armor among other stone, wood and vegetable artifacts (Hrdlicka 1945:237–246, 412–417). These and other cave-interred mummies in



FIG. 2. Projectiles associated with warfare on the north Pacific Rim. Left, thinly barbed bone projectile with slot for a slate end blade. Right, thin and slender basalt projectiles from Chirikof Island. All curated at the University of Wisconsin, Madison.

the chain probably fall into the late prehistoric period (McCartney 1984:129–130).

Unangan weaponry has been found at many non-burial locations. Perhaps one of the most unequivocal is the bow and arrow. It is unanimously clear from all ethnographic sources that the bow and arrow is not a suitable weapon for hunting sea mammals from kayaks. In fact, the only game hunted with arrows is birds. When numerous small arrow points are found in island settings in the north Pacific, we are seeing tools constructed for use on humans.

Points we believe were designed for killing humans were found in Izembek Lagoon (McCartney 1974:76), at Port Moller (Workman 1966), on the Shumagin Islands (Johnson 1988:153), and on Chirikof Island (Workman 1969). These are thin, brittle, basalt fishtailed projectiles and have been interpreted as being specifically for snapping off in the body of an enemy leaving a jagged, infectious wound (Figure 2). They were de-

signed to be mounted on an arrow shaft. With no terrestrial mammals available to hunt, at least on Chirikof, the Shumagins, and all of the Aleutians west of Unimak, the manufacturers of these kinds of points were most likely hunting each other. Stone arrow points in this region generally date to the last 2000 years, if not somewhat younger. Calibrating the dates from Chirikof Island places the points in about the first millennium AD and Workman argues they came to the island from the Peninsula (1969:II:740–745). On the Shumagins, Johnson (1988) found similar projectiles of approximately the same age. Other kinds of projectiles that work well on humans are long, thin, bone projectiles that sometimes have delicate barbs near the base. Small, bone arrow points are less common in the Aleutians than surrounding regions.

In the Kodiak archipelago there is less technological evidence for warfare. The available data include bone arrow points

with thin splintery barbs and a small end blade from the Kachemak site of Three Saints Bay dated approximately AD 700–900 (Figure 2, see also Clark 1984:141) and a proliferation in their use after AD 1400 during the Koniag Phase (Knecht 1995:735). Again, there are no terrestrial mammals in this area (except bears, which are not usually hunted with the bow and arrow). Warfare technology was recovered at Karluk One in the way of wooden shield fragments and wooden slat and cylindrical armor pieces and dates to Koniag times after AD 1200–1400 (Jordan and Knecht 1988:268; Knecht 1995:696–699). Miniature bows and arrows for children were also recovered from Karluk One and date to just before AD 1400 (Knecht 1995:612–615). The development of the kayak design with a second paddler increased its stability and speed for hunting and warfare. W. Fitzhugh suggests that the bow and arrow could be used by one of the Alutiiq while the other controlled the kayak (1988:50), although we suspect that the two-holed kayak is a result of hunting to meet the demands of the fur trade.

Fortifications

We have identified five patterns for how the Unangan and Alutiiq utilized their landscape defensively. The actual type of defensive location used will be based on the characteristics of the perceived threat and local geography.

The first type is the refuge rock island escape or lookout. Small islands near principal islands were used for protection, such as Splitrock off the coast of Unalaska near Kashaga (Hrdlicka 1945:148), a sea stack across a channel from a village (AA-12209) on Samalga Island (BIA ANCSA 1992a), and a small island (XCB-121) at the head of western Izembek Lagoon (Maschner et al. 1997) (Figure 3). Across Shelikof Strait from Kodiak Island on the Alaska Peninsula, Kukak Bay yields evidence of defense from the use of this type of refuge rock that is attached to

the village on the mainland (Dumond 1987). These sites typically have only a few house depressions. This is the type of refuge rock often described for the Chugach of Prince William Sound and used by the Eyak (Moss and Erlandson 1992).

The second type of refuge is the positioning of entire villages in defensible locations such as atop steep slopes for wider viewing and lessening the changes for surprise attacks. This type includes sites in protected bays such as Tunularalur (AA-12199) along the southwest coast of Amlia Island (BIA ANCSA 1993d). Unalaskans “stealing women” from the Amlians on their way to war with the Atkans forced the Amlians to be permanently on guard (Prokopeuff 1988). Amlia was a frequent battleground because of its geographic position between the constantly feuding Atkans and Unalaskans. Two small villages on the southern coast of Amchitka Island (AA-12018 and AA-12019) are also both entirely located on refuge rocks (BIA ANCSA 1988, 1989).

The location of a village site at Cabin Point (AA-12074) on Kanaga Island seems to have been for defensive purposes (BIA ANCSA 1995a). Twenty-nine cultural depressions follow over 300 meters of bluff line that is 15 meters high. There are no freshwater sources or protection from the elements. Kanaga Pass was formerly a major political boundary between the Andreanof and Delarof Island inhabitants. The Delarof islanders formed a distinct group from their neighbors called the *Naahmigus* (Bergsland 1959:15). Two large villages on the eastern shore of Tanaga (AA-12042, AA-12043), a Delarof island, were the first to fend off the Andreanof polity and also more eastern groups during inter-island wars (BIA ANCSA 1992d, 1994a). Caves with human remains were found nearby.

A large village site (UNI-018, BIA: AA-12246) on Unimak Island’s northwest coast sits in a defensible location with no shelter from the winds and no obvious fresh water source (BIA ANCSA 1995b). Boulder prom-

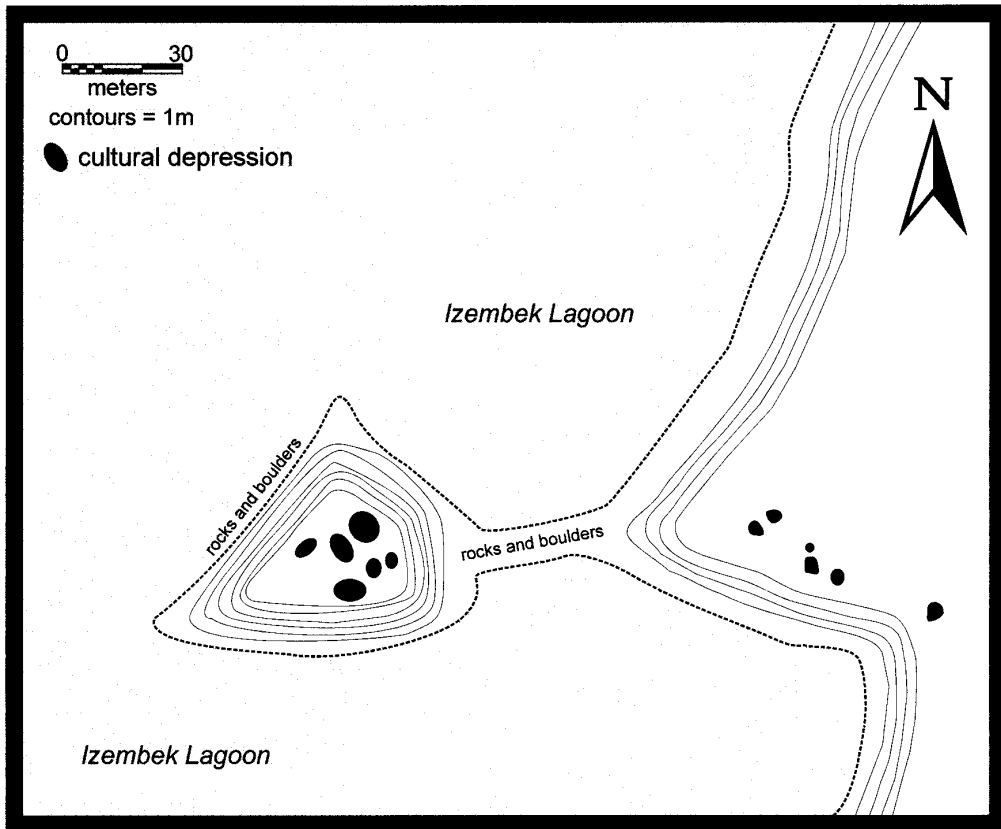


FIG. 3. Map of XCB-121, a small refuge island or defensible village in western Izembek Lagoon. The beach is composed of rocks and boulders unsuitable for landing a kayak or other skin boat.

ontories at the front of the village were natural bastions. The inhabitants could see approaching enemies from two directions and rain projectiles down on anyone that tried to land (Figure 4).

Kachemak villages seem to have been located in concealed positions for defensive purposes. J. B. Fitzhugh notes evidence for warfare in Late Kachemak times (AD 300–1100) around Sitkalidak Island off the south shore of Kodiak. Three defensive sites on “small cliff-bound islands or promontories, inappropriate for general habitation” (J. B. Fitzhugh 1995:6) were found on Sitkalidak Strait and are most likely in response to episodic local warfare.

Refuges or defensible fortifications lo-

cated above villages in locations with greater views are the third type of defensive site. These sites afford better viewing of the surrounding area while remaining adjacent to the village under its wing. UNI-067 in Peterson Lagoon on Unimak Island has a single depression surrounded by an earthen berm located on a high dune nearly 20 meters above the village (Hoffman 1995). A clear view of the lagoon, the Bering Sea and the tundra behind the village is gained from the top. Substantial midden deposits suggest extended use of the site. Limited archaeological testing indicates that it had some sort of wall but it is not clear from the available data whether this large, oval depression was actually a covered house or was surrounded

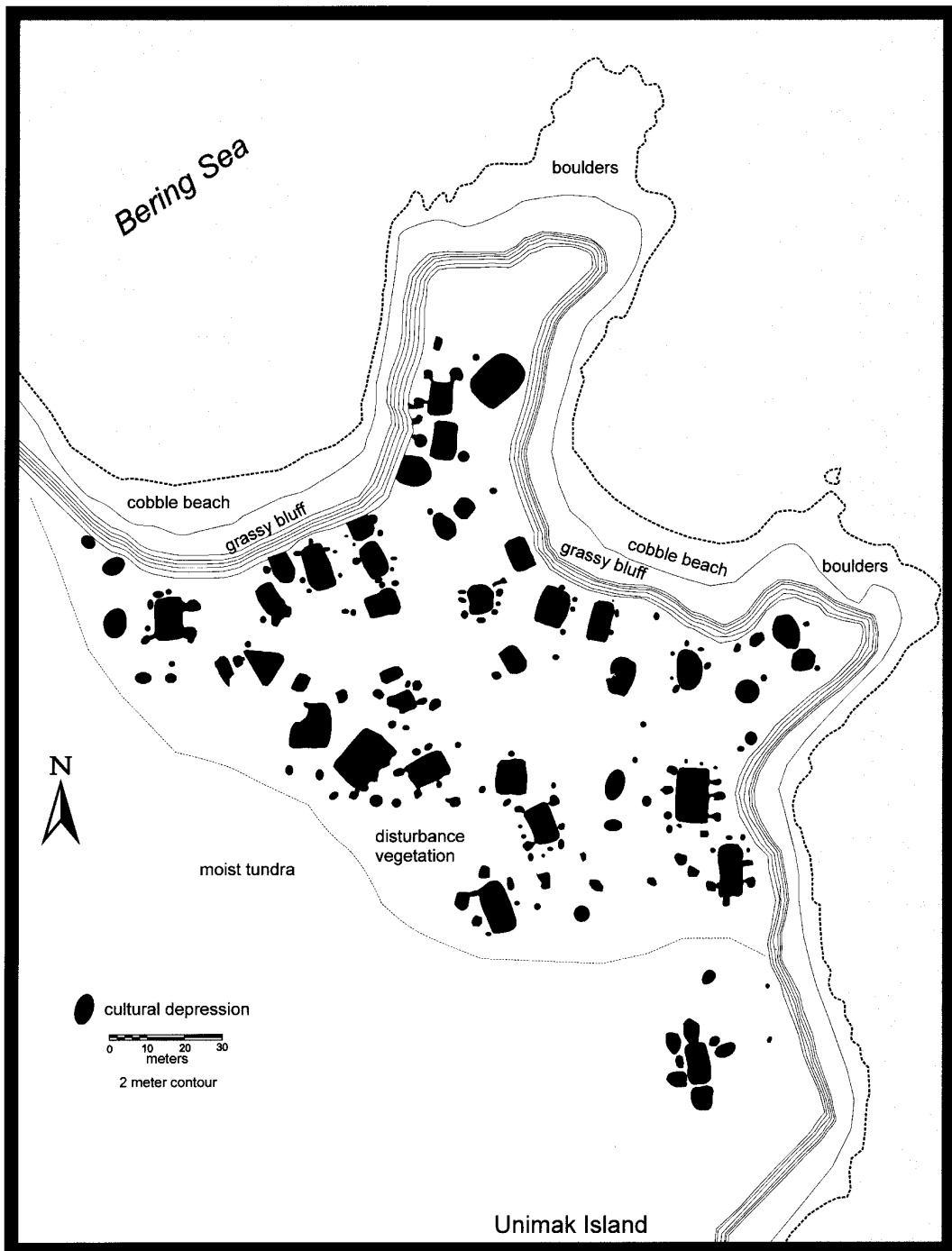


FIG. 4. Map of UNI-018 on the northwest shore of Unimak Island. This is the only large village on the lower Alaska Peninsula or Unimak Island that is not located on one of the productive lagoon systems or protected from storms. This would have been a difficult location to land kayaks because of the rocky shoreline (adapted from BIA ANCSA 1995b:7).



FIG. 5. Awa'uq or Refuge Rock, Kodiak Archipelago. Photograph courtesy of J. Benjamin Fitzhugh.

by a barricade. This village is also located in a protected lagoon that would be somewhat hidden from approaching enemies.

The fourth type of defensive measure is a cluster of houses near a pinnacle refuge rock. This is different from the third type in that these refuges can possibly accommodate the entire village should the people need to retreat to the rock during a raid. Two sites on Amlia Island fit this description. AA-12192 on the tip of Cape Idalug has a refuge rock located at the northeast corner with five house depressions (BIA ANCSA 1993c). The refuge is fifty meters high with near-vertical sides. A long bluff connects the cape with the refuge rock. All cultural features of site AA-12191 were clustered near a pinnacle rock except for five *umqans*, or burial mounds (BIA ANCSA 1993b).

Awa'uq, the famous site of the Russian conquest of Kodiak off Sitkalidak Island in Kayuyak Bay fits in this fourth category (Figure 5). The Alutiiq successfully kept the Russians at bay for the first twenty years of contact intermittently using the defensive site. It took three ships of Shelikhov's men including Unangan, cannons and firearms to eventually break their resistance. The islet is

200 meters long, 80 meters wide, 4 meters high on the low northern side, and 23 meters high on the southern side that is the outer exposed area. There are 27 multiroom houses on top (Knecht 1995:738). This citadel was only accessible at low tide and by a certain secret way that was reportedly betrayed to the Russians (Holmberg 1985:59).

The fifth type of defensive site is the positioning of the village on a point or spit of land with water retreats. Uyux (AA-12218) on Umnak's Pacific coast is located on a low isthmus with a wide view and escape routes on water (BIA ANCSA 1993e). Oral narratives refer to this site's involvement in pre-contact strife where a lone hunter successfully engaged an enemy war party from the east before they could attack his village. A war party retaliated many years later (Bergsland 1959:339–340).

Few defensive sites have been dated. The dune-top enclosure on Unimak Island dates to just before historic contact (AD 1575), approximately the same age as the spear point in the skeleton buried in the village below. The small refuge rock with five houses in southwest Izembek Lagoon (XCB-121) has a single radiocarbon determination calibrated

to AD 1025, the same dates as the surrounding villages. As far as we are aware, no other defensive sites in the Aleutian region have been dated. While J. B. Fitzhugh has dated a several defensive sites to the late Kachemak Period (roughly AD 300 to 900), most defensive fortifications in the Kodiak region seem to be associated with late prehistoric Alutiiq villages (Moss and Erlandson 1992:84). Two huge defensive villages with between 20 and 50 houses each were found on the outer exposed edge of Sitkalidak Island (J. B. Fitzhugh 1995:6). No Alutiiq defensive sites were found in the protected straits indicating possible political unity and an increase in foreign pressure (1995:6).

Overview of the Archaeological Data

The earliest dated evidence we have for violence is during the Kachemak Tradition. Mutilated skeletal remains occur at several sites spanning the 2500-year duration of this tradition. A strong argument for a mortuary custom being responsible for the patterns in the skeletal data can be made as well. Contrary to Simon (1992), it is insignificant that there is no ethnographic correlate to match the observed patterns because there is no reason why we would expect there to be. If there were, why would we expect it to have the same symbolism over 3000 years? We would not. Rather, we have a data set that shows both violence through scalping and breakage, and preservation with drilling to tie skeletal elements back together. We could in fact be seeing a combination of violence and mortuary behavior that we have no means to interpret. While the Kachemak Tradition spans several thousand years, most of these data appear to be associated with later Kachemak Tradition components.

The presence of defensive fortifications during the Kachemak Tradition is perhaps our best evidence for conflict. J. B. Fitzhugh (1995) has made a clear case for the presence of fortifications around Sitkalidak Strait and these date to the later part of the Kachemak

Tradition. So few defensive landforms in the Aleutian region have been dated that it is impossible to determine whether defensive sites in this region are contemporaneous with the Kachemak Tradition or not. But this is the time when we first see evidence of Bering Sea artifacts and house forms in the midst of Aleutian Tradition villages on the lower Alaska Peninsula. This indicates that there was increasing interaction between the Bering Sea area and the Aleutian region. This is the period where we have the first evidence of long and thin arrow points throughout the north Pacific and southern Bering Sea regions.

After approximately AD 1100, there is a monumental increase in our evidence for violence and war. Although there are no clear skeletal data for the Kodiak region, there are a number of examples for the Aleutian region such as the Kagamil Caves or UNI-067 on Unimak Island. Neither Alutiiq burials nor Unangan burial caves and *umqans* (burial mounds) have been investigated with questions of violence in mind, although the technology of war (shield, armor, clubs) is often associated with these burials.

Defensive landforms are found throughout the Aleutian region and because many of these are associated with ethnographic forts and oral histories of warfare (see below), we can assume others were used similarly. On Kodiak, there is an increase in evidence for warfare as well seen through a proliferation in the construction of defensive sites with the transition to the Koniag Tradition (Knecht 1995:738). These are seen in many areas, but especially on the outer coastlines.

In all areas there is an increase of the use of thin, brittle stone arrow points or bone points with thin barbs after about 1800 years ago, or perhaps somewhat later as these sites are not all well dated. These are found in island contexts where there would have been few or no terrestrial mammals other than humans to hunt. Faceted end blades used to tip barbed arrow points are one of the major additions to the Kodiak technol-

ogy with the transition from the Kachemak to the Koniag Traditions (Knecht 1995:735) and there is every reason to assume that this was done in the context of escalating conflicts. The presence of clubs and shields during the Koniag Tradition provides supporting evidence.

ORAL AND ETHNOHISTORIC DATA

Oral historic data for violence and warfare are difficult to interpret and analyze. Events that occurred some distance in the past are often collapsed into other events and into shorter periods (Vansina 1985). The position of the storyteller often creates a "we versus them" situation where "they" were the aggressors and "we" the defenders. In almost no cases do the reporters of an historic event begin a conflict or claim responsibility for the conflict. In most cases, the reason to go to war is to correct a wrong done against one's family, kin group, or beliefs. Yet, in this context, the moral justifications for war can be understood and discussed.

Another area of exploration through the oral historic literature is the geography of warfare. While the actual events may be clouded with time, belief, and self-justification, the locations of events are often real. In this context, many of the events described in the following passages have actual geographic locations attached to them where archaeological remains have been identified.

The ethnohistoric data have many of the same problems as the oral historic data except that now we are more often dealing with European or Russian observations of events, with all of the cultural and historical baggage associated with those societies. It is more difficult, we think, to trust ethnohistoric accounts of motivations and causes of warfare, although some may be more relevant than others. The ethnohistoric accounts are useful for one side's perspective on Native-Russian conflicts and they are good observers of the geography and tactics of conflict. With this preamble, we will now de-

scribe a number of accounts that will perhaps help explain some of the motivations and conditions under which warfare occurred on the north Pacific.

The oral historic literature available is rich with discussions of Unangan conflicts and social-political boundaries seem to have played a significant part. Social boundaries existed between villages, but the boundary effect is more pronounced on the island and island-group peripheries. Interaction between groups seems to have been primarily military and warfare solidified these frontier limits. Knut Bergsland's interview with Atkan Native Cedor Snigaroff is one of the most detailed of any oral or ethnohistoric references of Aleutian warfare (Bergsland 1959). Snigaroff, being an Andreanof Island-group member, tells about the first quarrels between the Fox Islanders and the Andreanof Islanders and ends with the Russian reorganization. Informant chronology puts these events in the late prehistoric period with such specifics as "in the times of the great-grandfathers and grandfathers" (Veniaminov 1984:203) and "when they [the wars] were still going on" (Bergsland 1959:67). It was stated that "formerly," (1959:58) the Fox and Andreanof Islanders were amicable. A Fox Island woman married an Andreanof and they had a son, giving the Fox Islanders reason to travel every summer to visit their nephew. On one visit, they learned that their nephew had been stolen and killed. They returned for war at Amlia Island and took a mountain lookout nearby for themselves. The Amlians spied the warriors first as they boated into the bay and descended upon them, spearing them in the water before they got to shore. The chief of the "eastern men" returned continuously with new warriors and attempted to re-supply himself on the way back and forth using those islands in between. The eastern men attacked two big villages on Tanaga and "again they were stopped" (1959:60). They landed on a cut-off islet off Unalga and the two enemies watched each other. When the Fox Islanders

were sleeping, the Unalgans paddled out and stole all the enemy's boats, weaponry and subsistence gear. The Unalgans had the audacity to paddle up close to get a good look before abandoning them. Then they shouted to awaken them and, while the eastern men scrambled in vain to go after the Unalgans, they slipped away and left the eastern men with nothing to take for requiting. Both Kavalga and Unalga relished in the booty while the eastern men watched and cried. It was "something awful to listen to" (1959:62) and, as they starved, their voices weakened and they died. The Unalgans returned to the islet after they had all died and found that they had killed their sentinel in rage and thrown him on the seashore. Their bodies were buried "because they were at a sea mammal place" (1959:62). They celebrated in doing to the "vigorous men" what they were doing to all the Andreanof Islanders.

The easterners continued to war against "every islet they had not yet reached" (1959:62). On the east cape of Tagalak, there was a gap at the end of the steep bank and the land beyond the gap was used as a refuge. The sides dropped down into the deep sea and the cape looked like one piece of land. The eastern men were detected as they arrived at nightfall so the people on the island moved onto the refuge rock. They began "rushing along down from that cape, right out in the air they began to fall. Falling, falling, some of them piercing themselves on their spears" (1959:63). Daylight came and the water was blood red with bodies floating in it. The bodies were "taken ashore and put away" (1959:63) and the Tagalakans took their boats and possessions for themselves.

A story involving slavery begins with Wren, the chief of the eastern men, terrorizing two cousins trapped in a cave on Seguam (in the Andreanofs). They gave themselves up to him eventually and were taken out of the cave and laid on their backs where the skin across their foreheads was cut. "The skin of a warrior taken prisoner usually was

not left whole" (Bergsland 1959:66). They bled, but not to death, as they were taken by boat to Amukta Island. The two cousins were slaves on the island but saw each other only occasionally when they were collecting shorebirds. They stealthily made plans to steal a boat and escape. The slaves were always being guarded but they did not know it, so when they took off across the water to flee, a multitude of warriors came racing close behind. They hid out on Amlia and then continued west, having successfully escaped.

The locations of warfare episodes from these oral testimonies roughly correspond with the Bureau of Indian Affairs survey data. Several battle zones were surveyed in the Andreanof Island group. Amlia Island had the unfortunate position of being located between the constantly feuding Atkans and Unalaskans (Bergsland 1959). Battle sites on Amlia (AA-12198, AA-12199, AA-12185) were also cemetery sites and analysis of the skeletal data could add to our understanding of the interactions (BIA ANCSA 1994b, 1993d, 1993a). The pass between Tanaga and Kanaga Islands was a major political boundary between Tanagans and the Delarof Islanders against those of the other Andreanof Islands (Black 1984:55) and village locations and defensive measures were politically motivated. Kanaga's known defensive site (AA-12074) is located high on a bluff with full exposure to the elements and no freshwater sources (BIA ANCSA 1995a). The two Tanaga Island sites (AA-12042 and AA-12043) were raided by the Fox Islanders before Russian intrusion (Bergsland 1959:60; BIA ANCSA 1992d, 1994a). Two sites (AA-12028 and AA-12031) on Kavalga Island are apparently involved in the warfare episode where Unalgans were attacked by Fox Islanders (BIA ANCSA 1992b, 1992c).

Logistics required in moving around the Aleutians may have affected the frequency of warfare and distances between islands could have acted as uninhabited buffer

zones between two enemies. Territories were fixed and enemy trespass was not allowed (Bergsland 1959). Each local village group claimed several territories beyond their current settlement so they could relocate without instigating intervillage conflict should the resources in their settlement deplete, such as a failed salmon run or natural disaster (1959).

The Alutiiq-Unangan frontier was an area of intense conflict before the arrival of the Russians and the interactions that occurred at the protohistoric-historic boundary were noted in voyagers' journals. Shelikhov witnessed Fox Island Unangan plotting a sneak attack on the Alutiiq only to be raided first with all the men killed and five women imprisoned (Davydov 1977:188). Attacks were launched only on unsuspecting enemies. The Alutiiq would sometimes wait days for just the right conditions for an offensive. They typically killed all the men, except certain males that were retained for slavery or were destined for torture, and took only the women and children as prisoners (Davydov 1977:188; Oswalt 1979:244–245).

Women and children occupied unscalable cliff areas and refuge islands for protection while the men were away hunting in the summer. If attacks were expected, everyone moved to these defensive sites. Young boys were trained in the ability to endure pain by being forced to stand in the freezing seawater and by ritually cutting their skin open with shell fragments. Russian naval officer Davydov was told that “in earlier times” prisoners were brought before them and, as their stomachs were cut open while still alive, children were expected to pull out their intestines. They were also expected, as the story goes, to stab them or use them for target practice with their bows and arrows (Davydov 1977:163–190).

Alutiiq typically extended raids on Unangan only as far as Unimak Island whereas Umnak Unangan and Unalaskans traveled to Kodiak Island to attack (Veniaminov 1984:209). Entire Alutiiq settlements had

been destroyed by the Unangan and revenge wars became “so frequent that the inhabitants of the Shumagin Islands either were on a military expedition or had to sit in their fortresses” (1984:250). The Shumagin Islands being a primary battleground for bitter Unangan-Alutiiq conflicts (1984:128).

Russian explorer Glotov's vessel was attacked by bow and arrow armed Alutiiq warriors. Gunshots prompted them to flee, but their second wave of attack came in the daylight with about 200 warriors with shields and their third wave had up to 340 warriors (Black 1992:166–168). After Russian tactics forced them to retreat each time, the Alutiiq began to trade on a minimal scale. However, they always attempted militarily to prevent any foreigners from landing on their islands and were so well organized for warfare that Russian vessels often bypassed the Kodiak archipelago when sailing through (1992:169).

To summarize the ethnohistoric and oral historic evidence for conflict, a number of important observations can be made. First, that Alutiiq and Unangan warfare was well organized, well equipped, and played an important role in late prehistoric and early historic times. There was a specific war technology and an understanding of tactics. We also know that large numbers of men participated in warfare with several hundreds of individuals involved in some battles.

Second, while motivations seem somewhat variable, they can be reduced to two broad categories—status (fighting for slaves, women and revenge) and boundary maintenance (fighting for protection). Nearly all revenge warfare is a product of maintaining the status of your kin group. Without taking revenge for a wrong done against your kin group, other groups will perceive you as weak, defenseless, and open to attack. Some of these examples can also be interpreted as individuals and groups instigating conflicts, often with a perceived (or fabricated) revenge motive, in order to increase access to status and to improve one's

standing in the group. This is also evident in the abduction of women or conflicts that occur over women. Status is often tied to numbers of wives and numbers of offspring and there are several accounts that can be explained along these lines. Also tied to status is warfare for slaves. Slaves increased economic production with none of the obligations necessary to close relatives.

Third, and closely related to status, is boundary maintenance. While there is no clear evidence of warfare for food and territory, there is evidence of territorial defense. This dichotomy of "our landscape versus your landscape" is apparent in many conflicts and appears to be more socio-political than economic. We have groups from apparently productive and successful subsistence zones attacking groups in equally or less productive areas. Since there is no evidence that any of these wars resulted in a change in territory, or that the participants, after travelling 1000 km to attack, expected to expand to a new region, boundary maintenance is more likely the result of maintaining a safe territory for women and children and protecting them from being abducted (as described by Wrangam and Peterson 1996). There is evidence of pillaging for goods after a successful raid, but the amount of goods one could take home in a kayak is limited, and the confiscation of goods seems to have been more opportunistic than planned.

DISCUSSION

The first evidence for violence and perhaps warfare occurs in the Kachemak Tradition and is visible through both skeletal remains and defensive fortifications. These data are neither continuous throughout the tradition nor widespread. They may be indicative of isolated or brief periods of conflict. We know that warfare occurred much earlier in other areas of North America and that it was common in areas adjacent to the north Pacific such as the Northwest Coast

(Maschner 1998) and Bering Straits (Bandi 1995; Gerlach and Mason 1992) during the late Kachemak Phase and the later Aleutian Traditions. We also have a proliferation in the use of thin, brittle arrow points that have been found in a number of areas that historically formed the frontier between the Alutiiq and the Unangan. The majority of these data date to the first millenium AD.

The causes of conflict at this time are obscure. There are few data for hereditary status differences and the data on villages argues for small communities organized into independent households. As has been demonstrated for village-based societies worldwide (e.g. Chagnon 1973), there is always some reason to suspect your neighbors for something that goes wrong or for an unexplained event and this often leads to revenge wars. This occurs most often during times of political, economic, or environmental stress. Jordan and Knecht (1988), Steffian (1992), and J. B. Fitzhugh (1996) have all recognized that there is an increase in the number and size of Kachemak villages during this time. There have been no studies to indicate that this was a time of increasing social and political stress, but there is certainly circumstantial evidence. This can be seen in the mortuary complex and in the construction of defensive fortifications. The only two studies of economic stress for this region are Steffian and Simon's (1994) discussion of Harris lines on Kachemak skeletal remains from Crag Point and Uyak and Lobdell's (1988) analysis of Harris lines on human remains from Kachemak Bay. However, bioarchaeologists are currently unable to determine what exactly Harris lines mean in measuring nutrition and their significance is unknown (Roberts and Manchester 1995:175-177). More traditional indications of nutrition or disease stress such as periosteal lesions, cribra orbitalia, or enamel hypoplasias are noticeably absent from Kodiak and Aleutian skeletal series (Laughlin 1980:11; Maschner 1993 field notes; Park 1996). Environmental stress might be evident in earthquake and tsunami

data and although these have been identified as occurring during the Kachemak Tradition (Carver 1993), there is currently not enough data to indicate whether or not they occurred at the same time as the evidence for conflict. These data led the late Richard Jordan to state that: “. . . Kachemak villagers were highly competitive and prone to violence. Ironically, this violence does not seem to be rooted in competition over scarce resources given the size and depths of Kachemak middens; rather explanations must be sought in the nature of Kachemak socio-political organization and ideology” (1988:26).

Macro-regional data are also important as well. During the first millennium AD, a period of intense warfare rises both further north in Bering Straits and to the south along the Northwest Coast. In both areas changing political dynamics appear to be the driving force behind escalating conflicts (Maschner 1992, 1998; Gerlach and Mason 1992). It is at this time that the recurve bow, slat armor, and other material characteristics of war are found in Bering Straits and numerous defensive fortifications are constructed on the Northwest Coast. The importance of regional changes in social interaction cannot be underestimated as a basic cause for increasing social and political stress. Conditions where individual and kin-based patterns of aggression are most likely to develop.

After approximately AD 1000–1100, there is evidence for intensive warfare all along the Pacific from the southern Northwest Coast to the Alaskan arctic (Gerlach and Mason 1992; Maschner 1998; O’Leary 1995). In the regions occupied by the Alutiiq and Unangan, we see a proliferation in the construction of defensive fortifications, skeletal evidence for interregional violence, high-status burials with armaments, and tools of war scattered throughout villages and midden accumulations.

This is also the time of the “Neo-Eskimozation” of the Bering Sea, Alaska Peninsula,

and the Kodiak Archipelago (Clark 1992:9, 11–13; Dumond 1988) resulting in aspects of the Western Thule Tradition permeating Bering Sea (Yupit) and north Pacific (Alutiiq) life. We also find evidence of this Western Thule Tradition down the Alaska Peninsula all the way to Izembek Lagoon (McCartney 1974). Conterminous or even correlated with these developments, house size in both areas triples or quadruples and villages get much larger (Fitzhugh 1996; Knecht 1995; Maschner and Hoffman 1994, n.d.). There is much more emphasis on status and prestige and there is every indication that the transition to a ranked lineage structure occurred at this time. This is the same time that there is escalation in village formation on the northern Northwest Coast (Acheson 1991; Maschner 1992, 1997) and clear evidence of ranked corporate households. The majority of defensive sites in southeast Alaska date between AD 1100 and historic contact, the same as those in Unangan and Alutiiq regions.

EXPLAINING WARFARE ON THE NORTH PACIFIC

Considering explanations for warfare, distinct causes for conflict might be identifiable if we address warfare in a localized area or single region. For example, local changes in the landscape, population, climate, or the distribution of resources may be correlated with archaeological changes (Knecht 1995) and certainly could influence an individual or community’s decision to go to war. These kinds of variables cannot explain changes in the intensity and timing of conflict across a region as large as the northern and eastern Pacific where these variations are neither uniform nor continuous.

The oral historic literature is rich with discussions of Unangan conflicts. Revenge seems to have been reason enough for the people of the Fox Island group to make continual raids into the western Aleutians, according to Knut Bergsland’s interview with

an Atkan Native (1959). Similar stories to these have been told to explain the origin of warfare between the Unalaskans and the Atkans and between the Unangan of the Alaska Peninsula and the Fox Islanders (Bergsland 1959:58–59; Veniaminov 1984: 203–204). These stories point to single events that may instigate war and are reason enough to perpetuate it for many generations. Many of these same patterns can be seen in the Alutiiq and Northwest Coast data as well. Again, these particularistic explanations do not contribute to explaining broad, macro-regional patterns.

To explain the rise of conflict in the first millennium AD, we should turn to the macro-regional approach. We have already argued that there were growing populations throughout the region and changing political dynamics both within the area of discussion as well as north to the Bering Straits and south along the Northwest Coast. It is unclear exactly who was fighting who at this time, but the distribution of defensive sites in Kodiak area indicates that some of these conflicts may have been internal. The distribution of arrow points between the Kodiak and Aleutian regions indicates that frontier conflicts were also present, as have been identified in the Bering Straits region (Gerlach and Mason 1992).

These are the conditions where we would expect young males to participate in conflicts. Growing populations, increasing village size and external political pressure creates the natural environment for the development of aggression as a socially sanctioned outlet for status and prestige. There need not be evidence of any resource stress as increasing political or social stress can create a perception of resource stress, even if there is none.

While the core areas of the Unangan had enjoyed geographical isolation for many millennia, the presence of the Western Thule Tradition on the Alaska Peninsula after AD 1000 and the Kodiak Archipeligo after AD 1100 “ruptured the barrier completely to es-

tablish wholesale contact with contemporaries of the Pacific” (Dumond 1974:2). This movement corresponds with a rather massive escalation in conflict around the north Pacific region. A new migration of foreigners may have precipitated many of the shifts in Unangan culture, especially those related to status and rank in later prehistory. It is quite possible that the aggressive interactions between the expanding Yup’ik and Alutiiq populations and the Unangan on the lower Alaska Peninsula and eastern Aleutians created conditions where it was necessary to have larger villages and larger corporate groups. Maschner has argued previously that these are the exact conditions where one would expect to see the rise of hereditary status differences (1991, 1992, 1998). These interactions may have had the same effect on the Alutiiq of the Kodiak region where many of the same changes occurred.

For these newly hierarchical societies, young males are looking for new outlets to status and prestige. Among most egalitarian hunters, the outlet can be found most often in hunting success. In multi-village polities alternative, chiefly supported outlets are present such as craft specialization, political specialization, religious specialization, and other roles that often provide opportunities for increasing status. However, in middle-level societies, where there has been a substantial decrease in the individual’s role in subsistence hunting, and there are not as yet any alternative outlets for status, men choose violence and warfare. The proximate motives of revenge, slaves, and women, accounts for most of the patterns we see in village-based societies and works well for describing Alutiiq-Unangan warfare, especially in the context of the ethnohistoric literature.

CONCLUSION

Future research must address two broad areas of investigation. The first is the archae-

ology of defensive fortifications. So few of these sites have been investigated in the Gulf of Alaska or the Aleutian region that little can be said about the timing of conflict in this region. The second area is the monumental increase in household and village size that occurred in both the Kodiak archipelago and the Aleutian region after AD 1000. This increase is so widespread that it can easily be demonstrated that this event is independent of culture, language, technology, or geography. There is also no evidence that these changes were products of late Holocene climatic changes. If climate could be demonstrated to have been responsible, there is no reason to argue that every village would respond to these changes in exactly the same way.

The best explanation, given our understanding of conflict in village-based societies, is that something occurred that created conditions where violence and warfare were selected as viable outlets for status striving males. The increase in household and village sizes resulted in a greater number of males concentrated in a single community. Whether this was an adaptive response to outside pressure, such as the expansion of the Western Thule and Koniag Traditions down the Alaska Peninsula and perhaps onto Kodiak Island, or was simply a byproduct resulting from solving another problem, is as yet undetermined. Regardless of the initial catalyst, there is a strong relationship between the increase in household size, increase in village size, population movements, culture change, the development of rank, and an investment in defensive fortifications and other evidence for warfare. This combination of events created new outlets to status.

After AD 1000, small-scale internecine warfare seems to have been replaced with larger contentions and organized defense with the onset of the Koniag Tradition. The organizational changes on Kodiak occur at about the same time as the Aleutian transitions and are probably associated with war-

fare. This late, pan-north Pacific phenomenon of change seems to be due to a combination of population expansion, increasing hierarchical organization and increasing individual-based striving for status and prestige. This striving through participation in organized warfare seen in the archaeological data corresponds well with the ethnohistoric motivations of revenge, status, women, and slavery. The result is an explanation of individual and kin-based motivations oriented towards increasing status and prestige to improve one's own and one's kin group's position.

There is little doubt that warfare played a significant role in the last 2000 years of north Pacific prehistory. We have argued that warfare may have been the driving force behind many of the organizational changes that have been identified in the archaeological record. The fact that these changes cross-cut cultures, languages, environments, and several thousand kilometers of the north Pacific and Bering Sea indicates that a simple, environment driven explanation does not do justice to the problem. Since this is a regional problem, we have argued in this paper that the question should include the conditions where young men will choose aggression as a viable option over other outlets to status and prestige. Thus, a motivation-based explanation founded in an individual or kin-group taking advantage of both local and regional stresses, regardless of cause, creates conditions where aggression and warfare will often be chosen as a successful outlet to increasing the status and prestige of the individual and that individual's community.

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