

ABSTRACTS

The Development of the Northwest Coast Culture Pattern

R.G. MATSON

The Northwest Coast Culture is unique among ethnographic cultures and our current understanding of its development is presented as resulting from six major contributions. First, we now understand that while hunters and gatherers may have lived a life of relative ease they were under unceasing demographic pressure. Second, ideas from optimal foraging now let us understand why the inhabitants went from subsisting on large mammals to relying on small fish, and why early, very wide-spread and long lasting cultures were replaced by more regionally limited and shorter-lasting ones. Third, the combination of Binford's «foraging» and «collecting» adaptations with Schalk's argument that it is «storage» not procurement of salmon that is important are critical to understanding the salmon storage economy underlying the Northwest Coast culture. Fourth, although salmon has long been seen as very important to the Northwest Coast, detailed, definitive presentations of how this works are few and recent. Fifth, the ownership of dense, predictable resources, i.e., salmon procurement locations, is now understood as leading to inherited status differences. The final contribution is linking the pieces together in a systematic fashion such as in the economic modelling by Croes and Hackenberger. I end by sketching how these contributions lead to the ethnographic Northwest Coast Culture.

The Emergence of Complex Hunters and Gatherers: A View from the Northwest Plateau

BRIAN HAYDEN

Anthropology has had a long history of viewing culture as a system or organic kind of entity, from Marx and Durkheim to Kroeber, to the integrated ecological perspective of Steward, to the systems theory perspectives of New Archaeologists, to the recent communitarian views of Saitta, McGuire, Smith, and others. I, too, began my research with such a perspective, and I still am persuaded that simple hunter/gatherers in harsh environments do enforce communitarian behavior in a self-regulating kind of cultural system. Sharing, in particular, is an essential element to maintain for group survival in these societies.

However, in attempting to apply this model of culture to prehistoric complex hunter/gatherers that I was studying at Keatley Creek in the Interior of British Columbia, I sought ethnographic confirmation that elites acted for the good of the community. I went to the Maya Highlands to see how this was typically achieved in village societies of comparable complexity to Keatley Creek. The results of this ethnoarchaeological research were exactly the opposite of what I expected. In times of crisis, village elites did not help other residents of the villages, but they ruthlessly exploited them. Other examples were evident

in the literature if one looked for them. Thus, while some aspects of all societies need to operate as integrated systems, it was clear that the emergence of elites as part of increasing social complexity involved destabilizing behaviors that did not follow the communitarian or system-regulating model.

I thus began to develop a model of emerging complexity more in line with the views of Gilman who viewed elites as essentially exploitative. In trying to understand how some individuals could acquire positions of power to exploit others, I recognized a number of different strategies that I was familiar with from my own ethnoarchaeological work and that were well documented in the literature. The vast majority of these strategies is based on--or could only be effective under--conditions of resource surpluses. Thus, my approach sought to determine how some ambitious individuals (which I termed «aggrandizers») used surplus resources to advance their own self-interests, achieve positions of power, and develop increasingly complex sociopolitical systems. I refer to this approach as «paleo-political ecology.»

The main premise of this approach is that surplus food production is predicated on abundant resources and an appropriate technology to acquire, process, and store those resources. This generally only seems to have occurred in the most favorable environments in conjunction with Mesolithic types of technology, although a few precocious Upper Paleolithic examples exist. Understanding conditions under which storage occurs is a particularly interesting problem due to the risks, losses, and extra energy involved in storing foods.

Another premise is that highly ambitious individuals occur in all large human populations, but that they are kept on very short leashes in simple hunting and gathering societies in harsh environments or with limited resource extraction potential due to simple technologies. On the other hand, when regular surpluses began to be produced, seemingly innocuous strategies and seemingly communitarian activities became tolerated that actually laid the foundations for inequality, exploitation, the centralization of power, and increasing complexity. These changes must have initially included the recognition of private property so that stored surpluses could be used effectively by individuals in other strategies. Another key strategy was the development of prestige goods used in specific contexts to create debts or acquire advantages. Other strategies in which both surplus food and prestige items were used involved acquiring marriage partners via payments (bride prices and dowries), investments in children at various life events to increase their value for marriage exchanges, the holding of obligatory reciprocal feasts, the establishment of dependency networks usually based on kinship and other allied groups, claims of restricted access to supernatural powers, the establishment of fines and penalties for a wide range of social or ritual transgressions, the manipulation of warfare, and probably a number of other strategies. Most of these strategies can be identified in the archaeological remains from Keatley Creek and surrounding contemporaneous sites, especially private ownership and stored surpluses, prestige items, child investments, feasting, and restricted access to the supernatural.

Due to the advantages that successful aggrandizers acquired when using these strategies (more wives, more children, more wealth, more allies, more ability to survive attacks or to be successful in warfare, more ability to survive famines or other disasters, more power to protect one's own interests in communities), community members increasingly began to support these strategies and obtain some of these benefits for themselves by allying themselves with the aggrandizers promoting the strategies. Thus, the spread of these types of behavior, while originating in the pursuit of self-interests was ultimately due to

their selective advantages that gradually encompassed large proportions of communities. Because the use of these strategies depended substantially on the production of surpluses, and because of competition between aggrandizers, I argue that powerful pressures were systematically created to increase production to the maximum possible limit. If one wanted to obtain the advantages being generated, one had to produce surpluses. These pressures to produce ever more, and to control ever more, continued to have destabilizing effects over the succeeding millennia, resulting in the domestication of plants and animals as well as an entire range of prestige technologies or technologies for preparing prestige foods. Thus, the initial appearance of pottery, the use of metals, slavery, permanent architecture, tailored buckskin or woven clothes, monumental structures, burial mounds, stone bowls, sedentism, ancestor worship, secret societies, and probably human sacrifice and slavery all occur *first* among complex hunter/gatherers rather than agriculturalists. All of these developments make sense primarily as part of aggrandizer strategies, especially feasting, prestige goods, and control of access to supernatural powers. Complexity involving these strategies also clearly appears prior to the domestication of plants and animals in most areas of the world. The paleo-political ecology approach to these issues is in stark contrast to the population pressure or climate change, or human behavioral ecology or communitarian approaches. It accounts for archaeological observations concerning the emergence of complexity and domestication in a comprehensive and believable fashion.

Water Travel and the Definition of Territories on the Northwest Coast: A Coast Salish Example

MICHAEL BLAKE

The relationship between boat technology (canoes) and geography (rugged coastlines) has been an important factor in the history of Northwest Coast peoples since the first settlements appeared in the region more than 10,000 years ago. One aspect this relationship is the definition of territory: how people use a particular landscape and seascape, and by this I mean how people move themselves and their resources from place to place. Without watercraft the NWC environment would have been a very difficult one in which to travel and many abundant resources would have been all but inaccessible. Canoes permitted people to move themselves and their goods over long distances quickly and with relative ease. Territories were thus defined by waterways, shorelines, and the proximity of these to both maritime (including riverine and lacustrine) resources and to terrestrial resources. Travel times between permanent settlements and resource locations, using both water transport and foot travel were constrained by geographical conditions. Even though these conditions vary throughout the NWC, it is possible to see some consistent patterns in the layout of territories that existed in early in the colonial period and that continue to the present day. I examine the relationship between travel times (aquatic and terrestrial) and territory extents in the Coast Salish region of the NWC. The present-day territories of many self-defined Coast Salish groups suggest that the interplay between geography and transportation technology has played a significant role in the long-term histories of group differentiation, identity, and interaction. Finally, I explore the implications of this transportation technology and travel pattern for present-day First Nations who are struggling

to regain control of their territories from governments who tried to restrict land claims for the past century and a half.

Ken Ames (2002) recent paper examining the importance of «going by boat» details how the mode of transportation should be taken into account in our thinking about the nature of NWC societies, and especially, their mobility strategies. He argues that our models of hunter-gatherer mobility have generally been slanted towards terrestrial peoples-societies where the primary mode of transportation was by foot, on land, and aquatic travel was only secondary. This has an enormous impact on our thinking about how collectors and foragers both perceived and used the landscape, how they defined their territories and how they distributed their permanent settlements and more temporary camps and other activity areas. The differences between primary terrestrial transportation and primary aquatic transportation are far-reaching and they impact settlement sizes, locations, patterns of interaction, travel times and frequencies, the cost of transporting people and materials, and many more aspects of daily and seasonal life. Building on Ames' research, this chapter focuses on one aspect of this pattern: how boats enable people to use large territories over long spans of time while creating a minimal archaeological «footprint.»

I further explore the significance of this minimal footprint for understanding how present-day aboriginal communities may be at a disadvantage when trying to prove their claims to traditional territories that are now held by governments—both provincial and federal—and private interests. Coast Salish First Nations in Canada have struggled to accumulate enough evidence (archaeological and historical) to convince governments and courts of law that their ancestors had in fact possessed, used, occupied, and defended the territories they are currently claiming. This has been especially challenging when First Nations are trying to claim extensive territories that include terrestrial resources away from the coastlines because there is often little physical archaeological evidence of use and occupation. In this chapter I argue that it is the very efficiency of boat transportation that makes both marine and terrestrial territories and resources accessible and defensible while at the same time allowing for a relatively light «footprint» as one travels inland from the coast. By taking into account both boat technology and mobility practices we can better understand the long-term patterns of settlement and resource use on the Northwest Coast and at the same time show that the impacts of these ancient patterns reverberate in the present-day struggles of First Nations to gain legal recognition of their ancestral terrestrial and aquatic resources and territories.

Located on the northeast portion of the Strait of Georgia, the traditional territory of the northern Coast Salish Sechelt people provides a good example of how canoe technology impacts both maritime and terrestrial travel times and territorial occupation and use. The Sechelt accessed the wide range of environmental zones extending from the relatively open ocean to the narrow inlets, lakes, and rivers that penetrated deep into the inland mountainous zones. Most recorded archaeological sites (red triangles) are distributed primarily along the coast facing onto the Strait of Georgia. There are many sites located along the inlets, but these are relatively few compared with those on or nearby the Strait. Very few recorded sites are located more than a few hundred metres inland from the coast. However, the entire territory is accessible by means of a hike of between 10 and 20 km inland from the shoreline to the territorial boundary with the average hiking distance only about 12 km.

Using travel time data both for canoe and foot, I show that one or two days of canoe travel combined with one day of terrestrial travel puts any member of an outer coast Sechelt village high up in the mountains on the boundary of their traditional territory.

Furthermore, and this is very important for understanding the efficiency of this combined travel mode, the canoe portion of the trip can be expanded to the farthest reaches of the territory, while the terrestrial portion of the average trip will remain constant at approximately 6 to 9 hours. This means that the costs of transporting large quantities of goods and or people can remain low even as the trip length increases because the increases in distance travelled are normally on the water-borne part of the trip.

In the Sechelt territory in particular, and in the Northwest Coast in general, this pattern of combined canoe and terrestrial travel has several important implications for understanding both general settlement and specialized activity area distributions on the landscape. Ken Ames points out an important implication of water travel: bulk processing is likely to take place at permanent settlements rather than at the collection/harvesting site. Because transport costs are so low, it is easier to bring materials collected in the hinterlands to the nearest point on the shore, and then load them into a canoe, paddle back to the settlement, and then process the bulk materials in and around the houses, than it is to transport large numbers of people to distant locations to process and render materials and then transport them back to one's residence. Ames uses the archaeological example of the Cathlapotle site near Portland, Oregon where residences are surrounded by earth ovens containing the remains of camas roots, acorns, and hazelnuts. He argues that, unlike plant processing sites used by terrestrial (inland) hunter-gatherers who construct ovens near camas root beds and then roast and dry the roots for transport back to permanent villages, the people at Cathlapotle could simply harvest the roots, load them in their canoes, and return to the village to do all the processing (Ames 2002: 42).

Ames' general aquatic transport model has significant implications for predicting the distributions of archaeological sites on the landscape. His first implication is that residential sites are likely to be centrally located—central with respect to aquatic transportation requirements—. To that I would add they are also likely to be relatively permanently anchored to these central locations. We would expect to see larger settlements and denser packing of settlements than among terrestrial hunter-gatherers because people are able to transport resources to the settlements—in effect expanding the overall catchment area because of the efficiency and effectiveness of canoe transport of bulk materials.

The second implication of canoe transport is that there should be relatively few processing features and temporary campsites or semi-permanent residences away from the shore-line. In the Sechelt territory, for example, based on this implication of Ames' model, we should not expect to see many archaeologically visible features more than a few hundred metres from the shoreline. As we move several hours hiking distance way from the coast, there may be very few permanent features (such as large ovens), and we might only find scattered stone tools and occasional small-scale hearths for overnight camps. These types of sites could easily change location from year to year and so even these might be virtually impossible to discover. In other words, I would expect, ironically, a pattern of relatively intensive and frequent use of most of the territory, while at the same time there being relatively little evidence of the use distributed on the landscape in the form of archaeological remains.

The third implication of Ames' model is that residential sites on the coast will have a much greater range of materials including evidence of processing, manufacturing, and discard as well as longer yearly spans of occupation than we might expect to see in inland settlements for terrestrial hunter-gatherers. In comparison with terrestrial or inland hunter-gatherer residential sites we should expect to see more complete assemblages of all types of materials at coastal residential sites. In other words, because there is likely

to be less specialized processing of bulk materials in the hinterland, there should be a greater range of waste materials and by-products discarded in and around villages. Faunal remains, both marine and terrestrial, provide a good illustration of this. Hunters are likely to process a carcass at the kill site and bring back only what is needed to the residential site when they are travelling on foot. In contrast, when travelling by canoe, they may much more easily bring the complete (or nearly complete) animal back to the village and then butcher and process it there. In this scenario, skeletal parts that for terrestrial hunters would be left at the kill site, would, for aquatic hunters, be discarded at the village. The general principle we can derive from this is that in terrestrial hunter-gatherer settlement subsistence systems there should be a more homogeneous distribution of all material remains over the landscape, while among aquatic hunter-fisher-gatherers there should be a much more uneven distribution of material remains on the landscape. In this latter case, residential sites on the coast should have a disproportionately more remains and a greater range of materials than hinterland sites, which should appear to be relatively devoid of processing tools, features, and waste materials.

One further implication of this perspective is that it echoes through time to the present-day political and social dilemmas faced by First Nations communities along the Northwest Coast (especially in British Columbia) who are struggling against the government's resistance to recognize their land claims. Often the burden of proof for First Nations is the material or historical demonstration of land occupancy. The model proposed here suggests that occupancy need not necessarily be a part of ongoing and diverse land and resource use. Boat travel permits constant use of the entire territory with minimal effort in constructing permanent facilities in the hinterland. Villages, the other hand, show intense use and should have evidence of people's interactions with and use of their whole territories. This intense and long-term use of villages should not be taken to mean that a population was focussed on and restricted to the village and its immediate environs. Rather, the intense occupation of permanent villages was permitted precisely because people had unfettered access to their entire territories—access that was made possible by the intricate and exquisite development of boat technology.

Society Against the Chieftom: Organizing and Resisting Power in Coast Salish Warfare

BILL ANGELBECK

Northwest Coast cultures have long been an exception to general anthropological models. In this region, there were chiefs without chiefdoms, class stratification without state organization, and large, wealthy households in villages that were not centralized. This is particularly the case for the Coast Salish area, the focus for this study, as the power of their chiefs rarely extended beyond the household. When the Spanish Quimper expedition first documented the Coast Salish in 1790, they notably had remarked that «They recognize no superior chief». This indicated that, while there were certainly chiefs, there was no «paramount chief». Moreover, the majority of Coast Salish people were «upper class», a broad base from which chiefs could emerge. The ethnographer Wayne Suttles described their unique social organization as an «inverted pear» society in which elites outnumbered the

lower class and slaves. This represented the opposite of a pyramidal organization, where a single figurehead and a minority of elites rule over a greater base of lower class individuals. To understand this situation, in which there were a heterarchy of powerful chiefs and an «inverted pear» social organization, I employ a theoretical approach that is fitting for such settings that draws upon the theory of anarchism. Concepts in anarchist thought are appropriate for assessing the dynamics of societies without formal governments. For the Coast Salish, I intend to show that anarchism is especially capable for examining societies with a complex array of authorities and evaluating how they change through time. Warfare, I argue, served an important role in ensuring that single chiefs did not become predominant, while still allowing for contests of status and authority.

Anarchism, like Marxism, is a theory with a long history of debate that has sharpened its concepts and analytical approaches. Also, there have been many attempts to put its ideas into practice. Rather than providing a model formula for how societies should function, anarchist thinkers emphasize core principles and practices that should be adapted to local settings and historical circumstances. These practices would not be static but rather would be constantly renegotiated to adapt to the contingencies of new historical situations. These core principles of anarchism include: local and individual autonomy and expression, voluntary association, mutual aid, network forms of social organization, decentralization, justified authorities, and antiauthoritarianism.

For the Coast Salish area, I use these anarchist principles to assess the dynamics of their social organization, which is not egalitarian, nor centralized. Households are autonomous political units that are made up of several families and are internally hierarchical. While households live in proximity in villages, they are not politically centralized as households retain their autonomy and will even disperse separately for seasonal outings. Villages are not coherent polities in another important aspect: households and their chiefs vie for status. A primary way this is accomplished is through alliances with other households, typically through intermarriage ties. These relationships add social capital to each chief in the alliance but also allow one household to access to the other's resource areas. Therefore, the more elite households aim for alliances with distant chiefs, those that likely would have access to other types of resource areas—an island household, for instance, potentially could gain access to alpine resources, and vice versa. With such a dynamic, households that compose a village often could share stronger ties with those more distant than with those households adjacent. In this manner, social links form a network of relationships rather than an increasingly centralized political structure at the village level. These principles of local autonomy and network forms of organization are also apparent in how the Coast Salish organized their defenses.

The array of defensive sites implemented by the Coast Salish indicate a broad range of organizational scale. At the smallest scale is the underground refuge, documented ethnographically by Homer Barnett. Accordingly, these would have a deeply excavated floor basin and wooden beams to support a flat roof covered with earth. The surface of the house would be apparently be naturalized, matching the soil or vegetation of the surrounding environment. Entrances would be at the side and would be disguised as well. In excavations at the Smelt Bay (EaSf-2), I was able to document the presence of two large underground refuges. These were located behind or to the side of adjacent plankhouses. An important point is that these refuges represent a defense that was organized and controlled by the household. Defense within these structures served the needs only of the household that owned them; indeed, access to these refuges was through the adjacent plankhouse. It is apparent, however, that not every household at Smelt Bay had an underground re-

fuge, likely due to the amount of investments required for building one in addition to a plankhouse. Therefore, to evaluate the defenses for other households, the regional context of the site needs to be considered.

In the Smelt Bay area, there are numerous palisaded forts that surround the site within a range of a few kilometres. These are generally situated upon high bluffs or ridges and are girded with deep trenches and steep embankments along the sections of their perimeters that are the least naturally defensible. At the tops of the embankments and along the cliff edges, such a site would be protected with a palisade. While there are several trench-embankment fortifications near Smelt Bay, the size of each is small compared to the size of the village at Smelt Bay. It is unlikely that any particular fortification site was predominantly for (or could adequately contain) all of the villagers at Smelt Bay. I propose that the size of these fortifications is more likely associated not with the village as a whole, but instead represents the organization of a few allied households. Given the number of defensive sites in close proximity to Smelt Bay and their general Late Period contemporaneity, I argue that these smaller defensive sites form a network of defense for the population at Smelt Bay and surrounds. Such a model of defense not only seems apparent from the settlement pattern and lines of sight between these Late Period sites, but it is also consistent with the anarchic nature of Coast Salish sociopolitical organization. It would retain the autonomy of households, yet enable cooperation in allied networks for large-scale attacks. This would also be a more appropriate and flexible defensive strategy for the range of attacks the Coast Salish faced: attacks could come from huge parties of non-Salish raiders, which would involve the cooperation of multiple defensive outposts; or attacks, more commonly, could come in the form of feudal attacks from other Coast Salish groups—attacks directed not at the whole village but at a particular household and its allies. In such a scenario, smaller-scale defenses would be more appropriate, and they could cooperate from multiple vantage points in the landscape and seascape. Such defensive coordination is commonly described in the Coast Salish oral histories.

I next evaluate how these principles of Coast Salish sociopolitical organization were expressed (or suppressed) through time. As Proudhon (1861) described, societies are dense with tensions—factions continually will try to consolidate power and other factions will oppose such efforts. For the last couple millennia of Coast Salish history, I assess when elites consolidated power, marked by expressions of increasing inequality. Also, I try to recognize tendencies to limit concentrations of power. To evaluate such tendencies, I assessed the periods when warfare predominantly occurred relative to the development of social inequality in the region.

A stored salmon economy began during the Locarno Beach Phase (3,500 to 2,500 BP) in the Gulf of Georgia region, according to Matson, but that evidence of social stratification and large winter villages occurred only later, during the Marpole Phase (2,500 to 1,000 BP). This pattern continued during the following Gulf of Georgia or Late Period (1,000 BP to contact). A host of changes also occurred from the decline of Marpole to the beginning of the Late Period, reflecting the adoption and implementation of other practices. I focus here on the practice of cranial deformation, in which an infant's skull was shaped. During the Marpole period, cranial deformation was practiced among only a subset of the Marpole populations. This marker appears to have served as identification within those groups. Some archaeologists argued that the introduction of cranial deformation indicated the beginnings of class stratification, a period of increasing sociopolitical inequality. For these reasons, the development of inequality might be assumed to be continuous until the colonial period. However, I argue that the discontinuity of all these

changes introduced in the Late Period indicates that there was shake-up of the hegemony of Marpole elites. Initially, during Marpole a minority of elites bore the trait; however, by the end of Marpole, ca. 1000 BP, more Coast Salish people bear the trait than do not, and there are indications that the styles of deformation increasingly vary, likely indicating contests of identity. Since more people bear a trait associated with eliteness, this may chronologically track the development of Suttles' «inverted pear» society.

Radiocarbon dates at Late Period defensive sites end about 500 BP, which suggests that warfare decreased. During this decline of warfare, there are indications for the entrenchment of elite power, as during Marpole. Schaepe (2009) has argued for the rise of chiefs, or *siyá: ms*, in the Fraser Valley at this time. He determined that discrepancies in house sizes markedly increased about 550 BP and that these were indicators of social inequality; these inequities continued to increase throughout the rest of the Late Period until contact. With the onset of the fur trade, another period of warfare ensued and lasted for a century.

Taking an anarchist perspective, warfare can be seen as a factor contributing to decentralization, an attack on the hegemony of Coast Salish elites, for both the Marpole and late precontact periods. If the power of the elite classes were more entrenched during those periods, then I argue that warfare served to fragment their hold on exchange networks, allowing others to participate. Clastres made a similar point for South American groups, arguing that warfare was an act that negated concentrations of power. Warfare does not occur because of fragmentation; rather, it instigates fragmentation, or as Clastres (1994: 164) stated: «the dispersion of local groups ... is thus not the cause of war, but its effect, its specific goal». He saw warfare as having similar effects to the fissioning of foraging groups, which served limit and decentralize concentrations of power. For Clastres, warfare in small-scale or non-state societies serves «to maintain each community in its political independence.» The «centrifugal logic» of warfare acts against the «centripetal logic» of the state, or against any hegemonic entity trying to concentrate or institutionalize power; a concentration of power, is, by its very design, a centripetal dynamic. Applying it to the Coast Salish context, if one chief attempts to gain too much power, it only requires two or more other chiefs to ally and remove a powerful chief, sacking their wealth and status. To maintain power, a chief would have to institutionalize his position in a manner that would be resistant to such threats, requiring a solidified base of subordinate chiefs. In a region where the pursuit of status and prestige is a goal of most chiefly individuals, subordination to another chief would have to be under terms that would enhance their own status. Any «superior» chief in such conditions would increasingly come under pressure to enhance the wealth of subordinate chiefs. Therefore, the greater power one tries to attain, the more difficult it is to retain. Moreover, this notion of resistance to the centralization of power and unjustified authorities is also supported by Coast Salish oral histories.

Those opposed forces that characterize Coast Salish sociopolitical organization aptly meet the anarchist conception of society as dense with tensions, even to the point of conflict. Moreover, these strains were not expressed simply along lines of class, as Marxists have emphasized, but also were present across polarities of gender, age, skill, and other various forms of identification and association. Here, alliance and conflict exist at varying scales both spatially and temporally. Alliances help chiefs to grow in power, but they also can be used to resist concentrations of power. It depends on both the scope of analysis and temporal periods assessed. Moreover, the varying scales of allied organization manifest archaeologically at corresponding scales from household refuges to broad-scale coalitions, and large-scale alliances lasted only as long as needed to face the mutual threat

before returning to more local forms of autonomy. An anarchist framework is appropriate for such dynamics, where there complex displays of eliteness and a heterarchy, not hierarchy, of chiefs. I have hoped to show that the theory of anarchism provides useful analytical tools to assess how the principles and practices of noncentralized social organizations manifest archaeologically and how they change through time as relationships of authority and power are renegotiated.

Probable Pasts and Possible Futures: Issues in the Reconstruction of Complex Hunter Gatherers of the Northwest Coast

COLIN GRIER

Aboriginal Northwest Coast societies have been at the center of anthropological debates concerning how complexity arises and is manifest in small-scale societies. In most discussions, the primary narrative that is presented typically proceeds as follows: Northwest Coast peoples existed in an abundant environment; the core of this environmental abundance was anadromous salmon; anadromous salmon provided the basis for a predictable and abundant storage-based economy that generated a regular surplus; this surplus allowed elites to emerge who promoted social inequality through their manipulation of surplus production. This inequality is linked with potlaching, resource ownership, impressive art traditions, slavery, large households, and other distinctly «non hunter-gatherer» social practices. Of course this oversimplifies the precontact situation that Northwest Coast archaeologists are still grappling to understand. Yet, relationships amongst the various social practices that constitute Northwest Coast social complexity are often over-generalized theoretically or under-evaluated with archaeological data.

In this paper I address elements of narratives of Northwest Coast prehistory and some issues these raise in relation to accurately portraying the long-term history of Northwest Coast peoples. I evaluate somewhat critically but hopefully productively a few problematic aspects of Northwest Coast archaeology as it stands today. I hope to identify where the narratives we promote require shoring up with new data, better theoretical articulation of critical relationships, or perhaps abandonment altogether. My discussion is grounded in my own research in the Gulf of Georgia region of coastal southwestern British Columbia, since this is the region where I work and know best, but also because many of the narratives offered as explanations for the precontact Northwest Coast lifeways were first articulated using data from this region.

The precontact history of the Northwest Coast has been often cast as a unilinear progression towards the florescence of salmon storage economies, in which relatively mobile and terrestrial-based foragers transition to sedentary, village-based groups with that relied heavily on the storage of riverine and marine resources. In contrast to the prevailing models, archaeological data I have gathered from the Gulf Islands region of southwestern British Columbia, Canada over the past decade indicate multiple and potentially quite local paths to complexity based on the intensification of a broad and varied suite of resources. The central hypothesis for this research is that change towards complexity was based on a broad spectrum intensification, and that this intensification involved significant engagement, management and manipulation of marine, coastal, and terrestrial ecosystems

well beyond that currently appreciated for non-agricultural peoples. Moreover, this broad-spectrum intensification was integral to shaping the trajectory of development of status systems and resource ownership.

Despite the central role of Gulf Islands archaeological data in shaping our understanding of cultural change on the precontact Northwest Coast, surprising gaps in those data exist. For example, models for the development of complexity in the Gulf Islands have emerged in a relative vacuum of data concerning basic economic processes of change. It is most remarkable and unfortunate that excavations at many major sites have rarely involved the collection of basic zooarchaeological data. In Burley's [then] thorough review of the nature and significance of the Marpole phase, essentially no faunal data appears. This situation remains unremedied in recent reworkings of Marpole culture history systematics. As a result, essentially no understanding has been gleaned of how the economics of the last five millennia in the Gulf Islands relate to the changes documented in material culture, settlement patterns and the dramatic social inequality evident in the mortuary record.

A key thrust of research on the Northwest Coast in the last two decades has concerned households, under the premise that major changes in socioeconomic organization are both reflected in and made possible through significant changes in household and community organization. Excavations at Dionisio Point have indicated that households, while usually viewed as integrated sharing units, had significant intrahousehold disparities, suggesting that inequality in Northwest Coast societies emerged in concert with the reconfiguration of some very basic household-level economic relations. Similar conclusions have been drawn for pre-contact houses excavated in other areas of the coast.

Villages such as Dionisio Point have been thought of as winter villages that were viable due primarily to their reliance on stored salmon processed at intensive levels during salmon runs. But salmon storage was clearly not the whole picture. Plant resources are also now appropriately being recognized as critical to the ancient and recent subsistence practices of Northwest Coast peoples. The Gulf of Georgia region offers a diversity of plant resources exceeding that found further north and rivaling that reported for areas to the south as far as California. Also increasingly recognized in Gulf Islands waters are ancient clam gardens, consisting of arrangements of rocks in the intertidal zone to enhance shellfish productivity. Evidence of elaborate precontact intertidal fish trapping technologies has come to light, targeting multiple species in a systematic attempt to exploit the diversity of coastal ecosystems.

Beyond pointing to the diversity of resources critical to Gulf of Georgia lifeways, these data indicate active engagement, modification, and enhancement of local environments to increase productivity across a spectrum of terrestrial, riverine and marine resources. Such practices were intimately connected with the development of highly structured systems of resource access rights and property ownership described for the Coast Salish and other regions of the Pacific coast.

My recent field research has been a pursuit of the archaeological data that are needed to illuminate these relationships and their temporal depth. Investigations conducted in recent years have focused on cusped spit sites in Trincomali Channel in the southern Gulf Islands. Cusped spits are a distinctive and important coastal landform consisting of two beaches meeting at an apex to form a triangle. These spit locations are home to abundant and diverse marine, terrestrial and plant resources. Archaeologically, these locations were initially inhabited as much as 5000 years ago, roughly the time of earliest known settlement in the islands. All were important, intensive and long-standing settlement locations

at the time of contact with Europeans, and as a group comprise the core of ancestral Hul'qumi'num settlement in the outer Gulf Islands. Over the last five millennia cusped spit landforms and aboriginal settlement have clearly developed in concert, and charting this co-evolution will allow the reconstruction of economic practices in the Gulf Islands.

The significance of cusped spits in relation to long-term Hul'qumi'num settlement is effectively illustrated by recent data collected at Shingle Point on Valdes Island, a site that typifies the cusped spit pattern. Shingle Point started out as much as 6500 years ago as a small single beach. Early, ephemeral human occupation intensified in concert with the expansion of the spits, which increased effective beach length and thus intertidal productivity. Ultimately, Shingle Point was home to the large Lyackson village of T'at'ka, which was abandoned only in the 1970s. Importantly, the prograding of the beaches at Shingle Point has served to spatially segregate to a substantial degree the various temporal components, and allows for targeting and sampling of specific time periods in the occupation history. Other cusped spit locations have similarly complex and long-term occupation histories.

An interesting and novel opportunity to study precontact plant use is presented by the particular nature of cusped spit locations. Several cusped spits in the study area have long-standing bog features near their base. As the two beaches have graded seaward the interior of the spit has become an effective trap for local freshwater draining from the island uplands. The standing water in these bogs has acted as trap for pollen from local vegetation communities. As bogs were likely one key locus of human plant tending and intensification, the pollen record may include economic species potentially tended by humans. Species composition (diversity) and relative abundance is being measured «on-site» over time through sampling of extracted sediment core columns to assess the potential role of plant resources in the broad spectrum intensification posited to have occurred over the last 5000 years.

Beyond these aspects of landscape management, construction of a 200 m intertidal clam garden adjacent to the spit at Shingle Point involved the movement of hundreds of small cobbles and boulders to form an intertidal substrate that undoubtedly promoted a greater diversity and abundance of intertidal shellfish and other species. Even more strikingly, the construction of a large precontact defensive trench embankment earthwork on the bluff immediately behind Cardale Point involved movements of earth and re-shaping of landscape on a massive scale. Terraforming activities are also evident at the Dionisio Point village site, where significant terracing of a 10 m slope was carried out to accommodate large longhouses.

The evidence at hand paints a picture of precontact aboriginal peoples as much more than simply foraging within various resource zones in an abundant environment. Rather, they were actively and substantively modifying the land and seascape in which they lived in service of economic intensification and social and political strategies over millennia. How does recognition of this point affect our models for the long-term history of Northwest Coast peoples and the dramatic changes they have undergone over the Holocene?

One example can be seen in how we theoretically model systems of resource ownership that existed on the Northwest Coast. A common view is that hunter-gatherers typically lack property ownership beyond very limited circumstances involving personally owned small. Explanations for the highly developed system of ownership recorded among aboriginal Northwest Coast peoples focus on efforts to control resource locations, notably salmon fishing locations. Salmon are argued to be a controllable resource because they are highly clumped in time and space, as well as predictable and abundant. Such notions reference

human behavioural ecology theory, which sees territoriality as an outgrowth of defending resources, and where ownership represents a more intensive form of territoriality.

Alternatively, we might see the development of ownership privileges as proportional to the investment one makes in the infrastructure that enhances resource productivity. As such ownership prerogatives emerge as investments are made in the landscape to diversify and enhance productivity. Such a perspective better accounts for why property rights and ownership extended to a variety of resources, rather than just salmon locations, among Northwest Coast societies. It also suggests that as enhancement of resource infrastructure increased, ownership emerged as a contested domain, particularly if many individuals and factions had hands in constructing the landscape and enhancing the productivity of resources that would otherwise be viewed as uncontrollable or not worth controlling.

While alternatives to existing perspectives remain critical to explore, the final aspect of this paper is rightly concerned with the people we as Northwest Coast archaeologists study. The year 2008 marked the 150th anniversary of the Province of British Columbia, and it is clear that much work has yet to be done to make the history of aboriginal peoples part of the recognized history of Canada. To accomplish this, we as archaeologists must work diligently to bring the complexity and richness of aboriginal lifeways to the broader consciousness of non-aboriginal peoples.

In working with First Nations, it is clear that the onus is increasingly on archaeologists to make their work relevant to those people whose past we study. Most aboriginal groups, I have worked with, have a deep interest in their past, and see it as a roadmap to build a sustainable future. It has been at times challenging but always rewarding to work towards finding ways in which our collective interest in the past can be translated into projects that produce both good archaeological data and tangible benefits for aboriginal communities.

Re-Thinking Subsistence on the Northwest Coast: The Value of Zooarchaeology in Contemporary Struggles over Fish and Wildlife in Alaska

MADONNA L. MOSS

The term «subsistence» is routinely used by archaeologists to refer to how a group of people obtains basic food and shelter. In North America, the focus of most subsistence studies has been on how people acquire food, whereas studies of «shelter» focusing on dwellings, houses, other domestic architecture, village layout, etc., fall within the realm of spatial, household, or community archaeology. In zooarchaeological and paleoethnobotanical studies, the term «subsistence» is frequently used, and «subsistence» is also commonly used as an adjective, as in «subsistence strategies», «subsistence pattern», «subsistence economy» or «subsistence-settlement system». Reitz and Wing (Reitz y Wing, 1999, 2008: 28) state that «[s]ubsistence research requires study of both the biological needs that diets meet and the strategies by which humans procure dietary components.» They also state that «[s]ubsistence strategies are the target of most current zooarchaeological research» (Reitz y Wing, 1999, 2008: 28), although in 2008, they qualified this to say that [s]ubsistence strategies are the target of *much* research» (Reitz and Wing, 2008: 28; emphasis mine).

To speakers of English, «subsistence» is understood as the means of making a living. Despite its superficial simplicity, the term actually has multiple meanings in different contexts. For example, «subsistence» is often assumed to mean the bare minimum necessary to survive economically. For example, a subsistence economy is defined as one:

«in which a group attempts to produce no more output per period than they must consume in that period in order to survive, but do not attempt to accumulate wealth or to transfer productivity from one period to the next. In such a system, a concept of wealth may not exist, and there is a reliance on renewal and reproduction within the natural environment. For this reason subsistence economies are often lauded by environmentalists who consider investment economies to be too much of a strain on the environment (Wikipedia, 2009)».

While the minimalism or marginality of subsistence is recognized as difficult and challenging, at the same time it can be valorized, as in the above quote in which a subsistence economy is praised for its low impact on the environment. Anything beyond the bare minimum is not really «subsistence» by these definitions. In this paper, I suggest that the pre-contact Tlingit and Haida economies —and possibly those of other Northwest Coast groups— were not merely «subsistence» economies. Members of these societies worked hard to acquire wealth, above and beyond what was necessary to merely survive. This is just one of many complications in debates over the varied meanings of «subsistence» and how the term is used today.

I recognize that the meanings attached to the English word, «subsistence,» and its use in Anglo-American archaeology may differ from the meaning of *subsistencia* (or an equivalent) in Spanish and its use in Spanish Archaeology or Latin American Archaeology. In Mexico, for example, I understand that «subsistence» generally refers to agriculture conducted by farmers who raise crops for their own use, not for sale at markets. My use in this paper is also narrowed by the fact that I will focus on use of animals by fishing, collecting, gathering, and hunting; I will not address plant use.

The term «subsistence» has an interesting history in anthropology and even more convoluted history in Alaska. Today, it is a term embraced by some Alaska Natives as denoting a lifestyle worthy of legal protection. It is a term rejected by other Alaska Natives because of pejorative connotations, some of which can be traced back to its 19th century usage by social scientists. Some people believe that subsistence is under threat in Alaska; others believe that fish and wildlife are under threat by subsistence uses. The specific threats to subsistence, or to fish and wildlife, are perceived differently in different communities.

In this paper, I deconstruct the term «subsistence» for the ultimate purpose of showing how received knowledge and conventional ways of thinking limit the impact archaeology can have in the modern world. I start by discussing the origins of the term «subsistence» in anthropology to show how the term is burdened with cultural evolutionary, ethnocentric, and racist connotations that remain with us today. I then focus on subsistence in Alaska, where the term has been defined and re-defined in laws enacted by both the U.S. federal government and the State of Alaska, two entities that control different tracts of land and water. «Subsistence» in Alaska has been a site of considerable political struggle, between state and federal governments, between rural and urban communities, and between Alaska Natives and non-Native Alaskans. The laws, and the regulations that have been developed to institutionalize them, have evolved over the last 30+ years into a complex maze that Alaska Natives are forced to navigate. Many cultural anthropologists are now employed by state and federal governments, and they play key roles in the documentation,

legitimization, and bureaucratization of subsistence. Although cultural anthropologists have contributed to knowledge and management of subsistence, the work of archaeologists—and for the purposes of this paper, the work of zooarchaeologists—has heretofore not made a significant impact. Contemporary struggles over «subsistence» reflect both the colonialist history of the term and how anthropologists have mediated between Native and government interests. I then illustrate some of the diversity of perspectives on subsistence in Alaska Native communities and how archaeological perspectives on «subsistence» are too narrowly conceived to make much of a difference in contemporary struggles. «Rethinking subsistence» involves evaluating the results of our work in ways that can help bridge the gaps between Native and non-Native perspectives, and between fishers, hunters, collectors, and regulators.

Before now, zooarchaeology has not played much of a role in struggles over subsistence rights and uses. Yet zooarchaeology has enormous potential to build new knowledge about long term subsistence practices—knowledge that not only is of academic interest, but also can contribute substantially to better management of fish and wildlife. The long-term perspective of zooarchaeology is of crucial importance because it documents times before industrial depletion of fish and wildlife in the 20th century. It still remains true that much contemporary ecological research conducted by biologists is based on local field studies of relatively short duration, usually since the 1950s. Yet in the late 20th century and even today, many fish and wildlife populations in Alaska were and are still suffering the cumulative effects of earlier over-exploitation. Pauly (1995) pointed out that policy makers and resource managers base many decisions on recent observations or on historical catch statistics that may span just a few decades (Erlandson y Rick, 2008: 1). Pauly termed this the «shifting baselines syndrome,» where fisheries managers use a relatively recent historical baseline to manage fisheries without full recognition that the baseline itself is a consequence of drastic reductions having already occurred. Decisions continue to be made upon baselines that are not only «shifting,» but receding.

Zooarchaeology has demonstrated that Alaska Natives successfully and sustainably harvested fish and wildlife for thousands of years. For example, investigations at Coffman Cove suggest not just 4000+ years of salmon use, but over 4000 years of resource ownership and stewardship of salmon. This helps counter that idea that the landscape of Alaska has been a «pristine wilderness» free from human impacts for over 12,000 years. Southeast Alaska has been a strongly humanized landscape for millennia, and the fish and wildlife of southeast Alaska have been adapting to human activity for a very long time. Resource managers should not expect to return ecosystems to a state of pre-industrial equilibrium; such equilibrium may have never existed. Alaska ecosystems have been dynamic systems in which humans have played leading roles for millennia. We should also consider how societies conceived of or failed to recognize environmental impacts they faced, and how they responded or adapted to change (Kirch, 2005: 432). Zooarchaeology has the potential to reveal genuinely new information about the long-term histories of fish and wildlife.

In Alaska, state and federal governments tightly regulate «subsistence use» of animals by Alaska Natives. Anderson (Anderson, 2001: 317) claims that Alaska Natives are subject to more federal laws, regulations, court decisions, and administrative rulings than any other Indigenous group in the United States. As will be shown, subsistence use of fish and game in Alaska is tangled in a web of contradictory and complex state and federal legislation and regulation. The institutional structures that have metastasized with sub-

sistence regulation illustrate how technologies of government have re-structured people's lives and livelihoods. I argue that zooarchaeological research can help Alaska Natives assert their rights to continue to use resources as they have for thousands of years in an increasingly bureaucratic world. As will be shown, use of fish and wildlife is central to Alaska Natives' on-going struggles to retain their cultures and identities.

Subsistence is very much about race and the struggle of Alaska Natives to maintain their cultures in the face of global homogenization. This article points to ways archaeologists, especially zooarchaeologists, can re-evaluate our social roles and contribute to the de-colonization of subsistence.

The Excluded Factor in Hunter-fisher-gatherer: From Tierra del Fuego to the Northwest Coast.

ASSUMPCIÓ VILA & JORDI ESTÉVEZ

The processes of social development at the geographical extremes of the American Pacific coast resulted in very different hunter-fisher-gatherer societies, despite the apparent environmental similarities. Comparing these two developments may be a way to understand the intrinsic features and fundamental causes of change in HFG societies. Starting from a non-systemic dialectical perspective that allows for internal contradictions in society, we seek to contribute to the formulation of a general explanatory model that embraces local models, including their general trends and specific contradictions.

Beginning with first human settlement, we present a brief comparative review of the historical trajectories of the North West Coast and Tierra del Fuego in order to expose the causes of their distinct outcomes. We will try to show when and why these developments diverge.

First we have to emphasize that human societies are composed of men and women in the context of specific historical relationships that create different types of societies, and that human societies are by definition «not natural.» No ethnographically known societies were primitive or prehistoric. At any specific moment of their history, these HG societies had long historical trajectories and well developed relationships between men and women that were the consequence of human experience accumulated over millennia: expertise and techniques they acquired by trying to manage the resources (that they recognized as useful) to survive and balancing their own reproduction. These gender relations necessary to reproduce society were historically determined from crises, disturbances and changes. The differences in the sexual division of labor between diverse societies proves that a person's sex does not preclude (or determine) certain jobs, and that the varied and sophisticated kinship relations, social interdictions and rules that control most activities reveal that relations of reproduction are not a direct consequence of some alleged instincts. The sexual division of labor is often simplified by saying, «men hunted and fished while women gathered plant foods or intertidal shellfish». By only specifying the food capture processes, it may appear that there is equality or complementarity in the subsistence efforts. In fact, most of the products require extensive processing (tasks that may be reserved to women as is the case in the NWC) before they can be finally consumed.

Most of the explanations for TdF and the NWC are based on an assumption that the process of human reproduction is natural: the number of children in HG societies is

controlled and restricted the by «Nature» before technological developments (which is of course not natural) and it is the same Nature that allows later societies (with a sedentary lifestyle) to multiply offspring geometrically. Thus, following explicit assumptions from the sixties, some scholars argue that the environment limits and adjusts population to a maximum carrying capacity, or that because nomadic HG mothers could not carry more than two children at a time they therefore had to space births or practice active or passive infanticide, or that prolonged breastfeeding effectively reduces pregnancies... But they also suggest that these problems of mobility or the insecurity and scarcity of resources and are lesser in the case of canoeists (who had a means of transport), and that therefore canoeists would have had fewer restrictions on reproduction than terrestrial inland HG. This should explain why population density in the Beagle Channel region was substantially higher than among neighboring HG societies of mainland Patagonia at the end of the nineteenth century.

Some scholars on the other theoretical extreme have suggested that the population increase is a factor always present (because of the natural fertility of the human species), and has stimulated to take immediately advantage of the new technological developments that were occurring.

We agree with the various authors who argue for rapid growth and high population densities in some coastal HG, because the exploitation of coastal resources, the varied sources and the supplies of mussels provide a safety valve. This produces a resource stability that initially allowed for very rapid population growth and for the attainment of a relatively high population density.

However arguments of «of course» or that invoke a natural fertility rate are questionable. How could a natural fertility rate have produced an uncontrolled population increase followed automatically by a stabilizing reduction in fertility? Fluctuation in population size is not a natural or independent variable. Production and reproduction form a unity and therefore human reproductive potential puts pressure on the development of the productive forces as a whole. But reproductive potential does not just stimulate or alternatively support the development of technology and production strategies, it also acts on strategies for the organization of reproduction (on the social relationships between men and women that re-produce the workforce). People tried to control this potential (in positive or negative ways) developing social strategies and techniques for organizing social relationships.

In all known societies, the relations between the sexes are fully interrelated and socially regulated. The process interrelating sex, pregnancy, childbirth and parenting has no universal form or mechanism, as we would expect if it were strictly a natural biological process, instead it is socially manipulated (mediated): there are social ways to encourage, to pressure or to regulate, reproduction that range from the application of physical force to ideological coercion, from the simple to the most sophisticated. Therefore any attempts to formulate an explanation for social processes, like those in the NWC and TdF, should consider how relations of reproduction are articulated. We have to know and understand how is the regeneration of the labor force structured, because this is the base on which the society is constructed and on which we have to develop explanations for any other relationships.

In these HG societies, the relations of reproduction dominate the relations of production. This dominance of reproduction over the whole system is illustrated in post-contact time TdF and NWC societies: aboriginal societies did not collapse because of technical problems or because they could not produce the food that they needed, but rather because

they could not replace the lives lost due to European contact. And afterwards, because of their numerical inferiority resulting from the reduced reproductive efficiency («efficiency should be described as the relationship between new lives constantly integrated into the system and population size that is achieved with them...») «The main determinant of the efficiency is the duration of reproductive lives»; MacInnes, 2008) of native women compared to non-native women. This difference is easy to understand because non-natives were resistant to common European diseases and because they lived at a higher economic level, and consequently had better health. They were also integrated in an ideological system that legitimated policies favoring reproduction.

However, the recovery of aboriginal populations during the second half of the twentieth century demonstrates their capacity to double their numbers in a few generations. This suggests, by pure mathematics, that strategies to manage reproduction must have existed throughout prehistory in the NWC as well as in TdF, regardless of the size of the pre-contact population. Thus, it is interesting to compare the dynamic management of the relationship between production and reproduction, in both places, and to note that at some point these processes evidently did begin to diverge. Current data currently shows that at the arrival of Europeans the NWC was actually much more densely populated than was TdF (although there were high population densities relative to other HG of the extreme South). We seek to explain the diverging histories of the NWC and TdF based on the contradiction between production and reproduction and the different ways of managing reproduction in the two historical processes. We will explore why reproductive strategies did not have the same effect in TdF and the NWC, despite their having some similar starting points in terms of chronology and the types of resources they initially exploited.

If the variety of resources and the abundance of mussels allowed a relaxing of reproductive controls and thus achieving relatively high rates of population, then the reduction or disappearance of mussels (probably by over-exploitation or because of some environmental change) should have led to a major crisis. The emphasis on fishing salmon, herring, candlefish (anadromous fishes)... was, in principle, the least costly alternative for the NWC because such fishing required neither major technological development nor a dramatic increase of male labor. In addition, using the traditional systems of capture allowed them to overcome the problems of diminishing returns without encountering any immediate limits. The only problem was that all the captures (which could theoretically supply the bulk of annual food needs) had to be processed quickly, and this processing required a significant quantity of female labor. In short, once they had opted for increasing fishing as an economic alternative, they fell into a trap of need an increasing female labor force, of intensifying work done by women and correspondingly a need for rapid population growth.

As different authors have already pointed out and as the history of the «iron chink» machine clearly demonstrates, the ability to process the fish captured was the true «bottleneck» in the salmon (anadromous fishing) economy. The system favored groups of people with access to the best fishing spots, but above all those groups that could better mobilize the necessary labor force to take advantage of their moments of over-abundance.

This apparently inexhaustible supply of fish, despite the traditional mass capture techniques and the relative slight effort invested in their capture, produced a new contradiction. The limit on the system shifted from the environment to processing capacity. But the more fish captured, the more «women's» labor that was needed. These circumstances would generate a spiraling geometric population increase: more demand provokes the need to increase production; this increased the population that again increased the demand and so on.

In this context, the most profitable way to meet growing labor needs would be for males to capture women because these women would not need additional training to become a profitable labor force. From our point of view, it is likely that this system, freed from the limits of the contradiction between production and reproduction typical for HG societies, transformed into an expansive system (as did the farming systems) and began to incorporate the neighboring societies. This release of reproductive force is the dominant factor underlying other causes for NWC development and it drove the evolution of NWC society.

In areas like the Columbia River, the Fraser River and perhaps the Nass/Skeena rivers, an expansive system would affect other neighboring areas through escalating violence and the widespread coercion not only of women but also of other segments of the population. This violence and coercion would also provoke counter-reactions.

With the entry of the Europeans, societies redirected the over-production to exchange, and to the increase of wealth and power for the old managers. The system of subjective value changed radically elaborating old tendencies including violence and a struggle to obtain (retain) a labor force and so on.

The major shortfall to understanding these processes is archaeological. As stated by Hayden, the problem of the origin of inequality is essentially an archaeological problem and should be solved with archaeological data. Since the existing archaeological evidence allows varied, multiple and opposed interpretations, it is clear that we must rethink the current archaeological record and plan on how to get a new one. If the social relations between women and men are the base line, then we need to define their archaeological dimensions in the relationships between archaeological data. In this sense, we believe the Ethno-archaeological approach can produce advances in archaeological science, by developing new methodological tools and verification systems and by overcoming the ambiguity of the archaeological record.