BREAKING DOWN THE BORDER: TOWARDS A MORE INTEGRATED ARCHAEOLOGY OF THE SOUTHERN NORTHWEST COAST

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ABSTRACT

In this paper, we discuss some key issues in the study of the archaeology of Native American societies of the northern California, Oregon, and Washington coasts. We focus on three issues: (1) the antiquity of coastal settlement; (2) the development of complexity among the maritime and riverine peoples of the area; and (3) the effects of European contact on such peoples during recent centuries. Although new archaeological data from the southern Northwest Coast have accumulated in recent decades, much remains to be learned.

Unfortunately, modern political borders often limit communication between scholars working in different areas within geographic regions or culture areas. A case in point is the archaeology of the southern Northwest Coast, where archaeologists working in three separate states often conduct research with either limited knowledge of what is going on in adjacent areas, or with little communication with their colleagues in adjacent areas. At the 1995 Society for California Archaeology Meetings, Elena Nilsson and Scott Byram organized a symposium on the Archaeology and Ethnohistory of Northern California and Southern Oregon. The commendable purpose of the symposium was to break down some of the artificial boundaries that limit communication between archaeologists working in these adjacent areas and to encourage more integrated reconstructions of the past. In this paper, we present some of our thoughts about some issues we believe are central to understanding the archaeology of the southern Northwest Coast. Our goal is not to be comprehensive in reviewing the existing literature for this area, but to highlight some recent publications and heighten awareness of some unifying themes that connect the archaeology of this fascinating region.

As we define it, the southern Northwest Coast encompasses most of the western margins of Washington, Oregon, and northern California, from Cape Alava on the north to Cape Mendocino on the south. Geographically, the area is dominated by coniferous rainforests, rugged and steep topography, high rainfall, and by a series of rivers that flow into the sea. The coastline faces predominantly west, with shorelines exposed to the full force of winds and storms coming off the vast expanse of the Pacific Ocean. Unlike the highly convoluted coastlines to the north, the southern Northwest Coast is relatively linear. Much of the coast is also fronted by high sea cliffs, towering testaments to the erosional force of the Pacific Ocean. Long stretches of sandy beach line the outer coast, punctuated by rocky headlands and a series of large bays and estuaries. These embayments, like Willapa Bay, the Columbia River mouth, Tillamook Bay, Coos Bay, Humboldt Bay and many smaller examples provided protected marine, estuarine, and freshwater habitats that supported substantial Native American populations.

The southern Northwest Coast is mountainous and tectonically active, with relatively narrow coastal plains and continental shelves compared to those of many other regions around the world. The juxtaposition of mountains and the sea provides access to a variety of closely-spaced marine and terrestrial communities. Upwelling of nutrient-laden oceanic currents supported rich populations of sea mammals, marine fish, shellfish, seabirds, and edible seaweeds. While a generally similar suite of marine resources probably has been present along the entire Pacific Coast

throughout the Holocene, their abundance, diversity, and accessibility varied locally. In bays and estuaries, marine habitats were accessible much of the year, but outer coast habitats are battered by surf that limited fishing, hunting, gathering, and boat travel, especially from late fall to early spring.

Riverine resources were also diverse and productive prior to over exploitation in the historic period. Salmon, eels, sturgeon, trout, and other fish were abundant in many coastal rivers of the southern Northwest Coast. Ethnographic and archaeological records indicate that riverine fishing was a major economic focus for many Native Americans of the coast and the adjacent interior.

On land, plants that produce edible calorie-rich nuts or seeds are not diverse, but acorn, and root plants like camas and wapato can be locally abundant. The most important large game animals in much of the area probably were deer and elk, but bears and a variety of medium and small mammals were once also abundant.

Peoples of the southern Northwest Coast shared some traits characteristic of both Northwest Coast and California culture areas. The boundaries between these culture areas have been defined differently by various scholars, reflecting the transitional nature of both Pacific Coast environments and cultural adaptations (Suttles 1990). The southern Northwest Coast was home to a diverse group of Indian cultures at the time of European contact. These include: the Wakashan-speaking Makah and Chimakuan-speaking Quileute of the western Olympic Peninsula; Salish peoples such as the Quinault and Chehalis of southwest Washington and the Tillamook of northern Oregon; Penutian-speakers like Oregon's Coastal Chinook, Alsea, Siuslaw, and Coos; Athapaskan peoples like the Tututni and Tolowa of the Oregon/California border area, and the Algic-speaking Yurok and Wiyot of northern California (Thompson and Kinkade 1990; Shipley 1978). Despite this diversity, these peoples shared many adaptations to similar marine, riverine, and terrestrial resources. Generally, the diversity and productivity of Pacific Coast resources also seems to have fostered relatively high population densities, sedentism, and cultural complexity. As we will show, however, the levels of population and social complexity attained by various peoples of the southern Northwest Coast are still debated.

In the sections that follow, we review some issues related to three major themes in the archaeology of the southern Northwest Coast: the antiquity of coastal adaptations, the evolution of cultural complexity, and the cultural changes associated with the clash of Native American and European cultures.

The Antiquity of Coastal Adaptations

Just over ten years ago, there were no known coastal archaeological sites on the southern Northwest Coast more than about 3000 years old. On the southern and central California coasts, in contrast, dozens of sites had been dated between about 9500 and 7000 years ago, including numerous shell middens that left no doubt about the partly coastal emphasis of early economies. To the north, several British Columbia and southeast Alaskan sites were known to date to the Early Holocene, although virtually no faunal remains had been found in the early maritime components at Ground Hog Bay 2, Hidden Falls, Namu, Bear Cove, or Glenrose. Nonetheless, the geographic settings of such sites, the lack of terrestrial alternatives at some, and the presence in the southeast Alaskan sites of Suemez Island obsidian for the outer coast implied a coastal adaptation.

For the Oregon coast, the dearth of early coastal sites led Lyman and Ross (1988; Lyman 1991; Ross 1985, 1990:554) to propose that an economic reliance on marine resources did not develop until after about 5000 years ago. This hypothetical "pre-marine" or "pre-littoral" phase has been broadened to include the coastlines of Washington and northern California (Lyman 1991:47-48; Lightfoot 1993). Hildebrandt and Levulett (1997) argue that the greater availability of elk, riverine fish, and other non-marine resources in this area led to a relatively late shift towards coastal settlement and subsistence. In contrast, Bickel (1978), Jones (1991), Minor (1989), and others attributed the dearth of early

sites on the southern Northwest Coast to the limited work done in the area or to the effects of environmental changes like rising post-glacial sea levels and coastal erosion.

The archaeological record of this area is very difficult to reconstruct because of the dramatic geomorphological changes that have occurred over the past 10,000 years. In Oregon, some sites formerly located in coastal settings are now found kilometers from the sea due to rapidly accreting sand dunes and hydrological changes (Minor and Toepel 1986; Connolly 1995). Recent geological studies have shown that much of the Washington and Oregon coasts have been subsiding for millennia (see Atwater et al. 1995, with numerous references), a process that has undoubtedly submerged or eroded many coastal sites. Finally, the soils of the southern Northwest Coast, formed primarily under coniferous forests, are also generally acidic, leading to the relatively rapid deterioration of bone and shell in many soils, particularly where substantial accumulations of shell are not present.

Despite such problems, recent research has begun to fill the gap in the spatial distribution of early coastal sites. In 1986, Minor and Toepel (1986) identified a component at Tahkenitch Landing (35DO130) associated with an estuarine adaptation dated between about 5200 and 8000 years ago. Located adjacent to a freshwater lake formed when coastal dunes blocked the drainage of Tahkenitch Creek, 35DO130 was located next to an estuarine embayment during the Early Holocene. Seven artifacts from this component are limited to 3 hammerstones, a scraper, a graver, a cobble chopper, and a sandstone abrader. Very few shellfish remains are found in the earliest component at Tahkenitch, but the bones of marine fish and aquatic birds are relatively abundant and Minor (1995a) suggests that, "the primary subsistence focus was on fishing for marine species, with hunting of marine birds, harbor seal, and mule deer."

On the northern California coast, a few miles south of the Russian River mouth, Schwaderer (1992) identified a 2.6 m deep shell midden at Duncan's Point Cave (CA-SON-348/H), the basal levels of which date to about 9000 calendar years ago. A single 1.5 x 1.5 m test unit was excavated through the early component at Duncan's Point. Although there has been some mixing of the midden deposits by gophers and other burrowing animals, the early component produced abundant remains of mussels and estuarine bivalves (clams, cockles, and oysters), and lesser amounts of marine fish (greenlings, rockfish, perches, etc.), sea and water birds (duck, loon, goose, seagull, murre, and grebe), and both land and sea mammals (sea otter, sea lion, badger, rabbit, etc.). According to Fenenga (1992), artifacts from the early component include a Lake Mojave-type point, 16 utilized flakes, 4 retouched flakes, 5 cores, 2 cobble core tools, 3 burins or burin spalls, and 2 drills or gravers. Obsidian from the Napa Valley and Annadel sources also suggests that the early occupants of the site participated in regional trade networks (Schwaderer 1992:69; Fenenga 1992:139).

On the southern Oregon coast, we recently identified another Early Holocene component at site 35CU67 on the outer coast north of Brookings (Moss and Erlandson 1995a; Erlandson and Moss 1996). At this site, a virtually continuous scatter of chipped stone tools and debris is exposed in dune blowouts for about a kilometer along the coastal bluffs. In one large artifact cluster, we found a deflated and low density scatter of mussel (*Mytilus californianus*) shells in an area about 25 m x 40 m. Many of the mussel shells were burned, leaving no doubt about their cultural origin. Three mussel shell samples from the site have been radiocarbon dated, resulting in an average calendar age of about 8450 years BP. Only preliminary data are available from the shell-bearing locus at 35CU67, which was almost certainly a small coastal campsite. The larger site area has been surface collected for years by local residents and Berreman collected over 200 artifacts from the larger site area in the 1930s, including numerous leaf-shaped bifaces (Minor and Greenspan 1991:30). In many respects, these are similar to specimens found in early sites up and down the Pacific Coast, as well as the adjacent interior. Along with burned rock and chipped stone debitage, the most abundant artifacts found on the site today are large flaked cobbles

(choppers, hammerstones, and cores) that are also common in many early Pacific Coast assemblages, including the Old Cordilleran or Pebble Tool complex of the central Northwest Coast (Carlson 1983; Matson and Coupland 1995). Like Duncan's Point and many other early Pacific Coast sites, 35CU67 also produced a number of small obsidian flakes that may indicate early trade with interior groups of northern California and southern Oregon.

35CU67 had been previously described as a "lithic site," where faunal remains are either rare or absent. Much has been said about lithic or "bluff" sites along the Oregon coast (see Lyman 1991:83-4). Ross (1985; 1990:554) hypothesized, for instance, that they were used by terrestrial hunter-gatherers living in coastal settings, associating some or all of them with his early pre-marine or pre-littoral phase. Minor and Greenspan have investigated several lithic site components along the southern Oregon coast in recent years, concluding that they include both "pure" lithic sites where soil acidity has destroyed virtually all shell and bone refuse and lithic activity areas functionally and temporally related to nearby shell midden deposits (Minor and Greenspan 1991:62). Work by Gould (1966) and Roscoe (1995), the latter reporting on a coastal Borax Lake Pattern lithic site in Humboldt County, extends this debate into northern California.

The argument about the nature and implications of these lithic sites is interesting from a broader Northwest Coast perspective, since few scholars seem to question the maritime links of early lithic sites found along the northern Northwest Coast. In southeast Alaska and British Columbia, however, many early lithic sites are found on remote islands that require boats to access, or in areas where there are relatively few terrestrial alternatives. On the southern Northwest Coast, however, there are numerous terrestrial and riverine alternatives to coastal resources. Here, it is at least possible that early lithic sites were occupied by terrestrial hunter-gatherers who ignored the rich rocky coast habitats nearby. Some of these sites are located on prominent coastal headlands, however, which offer access to rocky shores rich in shellfish, fish, and other marine resources, while access to large terrestrial game would have been limited. It seems much more likely that the faunal remains associated with coastal lithic sites, the remains of both marine and terrestrial animals, have deteriorated due to soil acidity. At such sites, the lack of marine shell or the bones of fish and sea mammals does not imply a lack of coastal subsistence unless the lack of any bone implies that the site occupants ate no meat at all. On the other hand, proposing a fully maritime adaptation without the remains of marine fauna is equally questionable.

Ultimately, much more data are needed before questions about the antiquity and nature of early settlement along the southern Northwest Coast can be addressed with confidence. For now, we cannot be certain if the few coastal localities dated to the Early Holocene represent occasional coastal resource use by predominantly terrestrial hunter-gatherers, or the few surviving examples of a broader early coastal tradition. As so often happens in such debates, the "truth" may ultimately be found to lie somewhere in between these two hypotheses.

The Development of Cultural Complexity

An issue that has influenced a great deal of Pacific Coast archaeological work is the search for the origins of the cultural complexity that typified the people of the region ethnographically. The Northwest Coast is often viewed as an area where hunter-gatherers lived in large villages or towns and held different social ranks with variable access to wealth and power; where wealth was accumulated and redistributed via intensive craft specialization, trade, and the potlatch; where elaborate and monumental artistic traditions were developed; and where critical resource patches were owned as corporate property and intensified subsistence focused on key foods stored for winter. Ethnographic peoples of the Oregon coast are usually omitted from this model of "classic" Northwest Coast cultural complexity. Of the Alsea Indians of the central Oregon coast, for instance, Drucker (1939:81) once wrote: "Alsea culture was definitely peripheral . . . . The picture is one of a small nation in an isolated spot along the coast – an eddy in the swirling current of

North Pacific culture. It seems that little of historical importance ever happened there, and it does not seem likely that anything ever would have happened." While northwest California's ethnographic peoples shared some of the attributes of classic Northwest Coast societies, they also shared relationships with other California tribes.

Compared to regions to the north and south, there has been much less discussion of the degree of complexity attained by southern Northwest Coast groups or the reasons that such complexity developed (see Lyman 1991). This may be due to the relatively recent migration of several major ethnic groups into the area, the more limited amount of archaeological research completed, and to the relatively shallow time depth for most of the archaeological record. On the Northwest Coast in general, the rise of complexity has been associated with the appearance of social stratification, which is often linked to the development of intensive salmon harvesting and storage-based economies. Recent work on the northern Northwest Coast has documented several wood stake fishing weirs dating between 3000 and 4500 years (Moss and Erlandson 1995b). Less research has been done on the antiquity and nature of fishing weirs of the southern Northwest Coast. As far as we know, no wood stake weirs have been identified or dated along the northern California coast, despite the fact that ethnographies for this area repeatedly refer to the use of weirs. Only two wood stake weirs have been dated along the Washington coast, although several others have been mentioned in the literature. In Oregon, our recent work with Scott Byram and Mark Tveskov has recorded more than 30 wood stake weir sites and 15 of these have been radiocarbon dated. So far, the oldest Oregon coast weir dates to 2410 $\pm$ 80 RYBP, but the vast majority date to the past 400 years. It seems likely that the differential antiquity of weir sites on the Northwest Coast is due to widespread subsidence along the Oregon and Washington coasts and the recent sedimentation in coastal estuaries (Moss and Erlandson 1995b).

So far, Northwest Coast fishing weirs and traps take a variety of different forms and are found in a variety of different environmental settings. This diversity suggests that fishing weirs and traps were probably used to catch a variety of different species of fish, not just salmon. Consequently, linking all fishing weirs – many of which are relatively small and could have been used by individuals or family groups to catch fish during various seasons of the year -- to the appearance of corporate harvesting of salmon requires a considerable leap of faith.

Among Pacific Coast archaeologists, social hierarchies have been viewed as efficient ways for groups to organize labor, maximize production, and manage food surpluses; a means of providing leadership in war parties to acquire booty, slaves, and other forms of wealth, or to exact revenge against "outside" groups; and the result of individuals striving for wealth, reproductive success, and sociopolitical status. Recognizing that individuals played an important role in the workings of past societies is refreshing in a discipline that had become too mechanistic in explaining human behavior. Human nature has probably not changed much over the past 10,000 years, however, and we believe the widespread development of social hierarchies was preordained by population growth, territorial circumscription, the increasingly perilous balance between people and resources, and increasing human interaction, both peaceful and violent. The development of cultural complexity up and down the Pacific Coast was a complex and lengthy process, one stimulated by the interaction of numerous causal mechanisms. On the southern Northwest Coast, deciphering the development of hunter-gatherer cultural complexity is also complicated by the migration of linguistically distinct Native American groups into the area and the difficulty of identifying different ethnic groups in the archaeological record.

European Contact and Ethnographic Models

Among archaeologists, in fact, the search for the origins of cultural complexity is often closely tied to a search for archaeological expressions of ethnographic patterns. The southern Northwest Coast has produced a variety of historic and ethnographic records, but the detail available for

different groups varies tremendously. In general, archaeologists have relied too heavily and too uncritically on ethnographic data to construct models of precontact cultures. Ethnographic records permeate our research, providing the baselines for virtually all our interpretations. The direct historical approach has been used effectively to study aspects of the later periods of southern Northwest Coast prehistory – Richard Gould's work among the Tolowa is an excellent example. However, few of us have fully comprehended the magnitude of the impacts European contact had on Native American societies of the Pacific Coast and just how early such impacts may have occurred. Minor (1995b) has suggested, for instance, that Old World diseases introduced in protohistoric times caused a rapid decline in Oregon coast populations and that "the complexity of southern Northwest Coast societies is almost certainly underestimated in the limited ethnographic record." While there is little tangible evidence yet for such protohistoric epidemics, Old World diseases clearly devastated coastal tribes early in the historic era (Boyd 1990; Erlandson and Bartoy 1996). For many groups, devastating population losses and cultural changes preceded the earliest historical and ethnographic accounts.

In southeast Alaska, Moss (1989) used a settlement model suggested by the classic ethnographic seasonal round to generate expectations about the differential contents of village, fort, and fish camp sites. Surprisingly, Moss found little significant difference between the faunal constituents of many precontact components in these sites. It seems that the seasonal round of the ethnographic records was at least partly a result of postcontact population losses, the abandonment of many village sites or entire bays, and the increased travel time required to exploit traditional resource territories after resettlement in distant aggregation villages. Moss has also argued that archaeologists have used ethnographically described seasonal rounds in an overly simplistic and normative way. In British Columbia, Jim Haggarty (1982) and others have also found that ethnographic models of settlement and land use patterns do not conform to precontact archaeological data. When detailed studies of settlement and land use across the late prehistoric to historic transition are completed for the southern Northwest Coast, it seems likely that similar discontinuities will be identified.

In the meantime, archaeologists should be extremely careful in using ethnographic records to structure interpretations of the precontact era. It may be more fitting to do just the opposite – to use archaeological data as baselines with which to understand the timing and magnitude of the devastating impacts European contact had on the Native peoples of the southern Northwest Coast. When studying these remarkable cultures there should be no epistemological break between precontact and historic societies. The crossing of this "boundary" should be seen as a continuous transition that leads to the living descendants of precontact tribes. As anthropologists, our interests should not stop at A.D. 1778, 1850, or even 1950. We should be interpreting the entire 10,000 years or more of Pacific Coast cultural history -- the good, the bad, and the ugly. If we showed more interest in historic changes among Native American cultures, and stopped viewing historic groups as somehow contaminated or disenfranchised from their past by Euroamerican contact, we might have far fewer adversial relations with tribal members today.

Notes

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