

AN ABSTRACT OF THE THESIS OF

Nancy J. Nelson for the degree of Master of Arts in Interdisciplinary Studies in Anthropology , Anthropology and Women Studies presented on May 4, 2000.

Title: The Umpqua Eden Site: The People, Their Smoking Pipes and Tobacco Cultivation

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Barbara Roth

Located on the central Oregon coast, the Umpqua Eden site (35DO83) yielded an artifact assemblage which is one of the five largest assemblages from the Oregon coast. The first aspect of the site that I looked at is the people who lived at the site, the ancestors of the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw. In turn, I consulted with Patty Whereat, the Cultural Resources Director for the tribes, which resulted in a more holistic view of the site. Additionally, I attempted to uncover possible women's and men's activity areas of the Umpqua Eden site. A wealth of information on the native peoples of the Oregon coast was discovered, revealing that the sexual division of labor was not extremely rigid before Euro-American contact and the social category of "female" was expanded to more than two genders with consideration given to the two-spirited individual. I also attempted to engender the archaeological record by looking at the processes involved in the manufacture of smoking pipes and the cultivation of tobacco. During the ethnographic period, women were not smoking pipes; however, they were probably cultivating the tobacco and possibly gathering the clay for smoking pipes. I suggest that there was an agricultural element to the hunter-gatherer native populations of the central Oregon coast and challenge Western assumptions of individualism in precontact groups of the Oregon coast.

I also provide a comparative analysis of clay, schist and steatite pipes of the Oregon coast. The smoking pipes are all straight and tubular (9% are shouldered) and the Umpqua Eden site pipes have the most artistic motifs. My analysis shows that the sandstone pipe dates to approximately 2,000 years ago and the clay smoking pipe may have replaced the sandstone pipe. Schist and steatite pipes were also used by the people of the Oregon coast and may have possibly been traded into the site from southern groups. Microscopic analysis of the pipes provided evidence that people were firing their clay pipes in a low temperature reducing atmosphere and using sand temper. In addition, I found a wide range of pipes being used on the Oregon coast given its relatively small geographic location.

All of the this archaeological inquiry has helped in understanding the Umpqua Eden site and helped to give us a clearer picture of pre-contact Lower Umpqua life.

**The Umpqua Eden Site:
The People,
Their Smoking Pipes
and
Tobacco Cultivation**

by

Nancy J. Nelson

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The Umpqua Eden Site: The People, Their Smoking Pipes and Tobacco Cultivation

Chapter 1

INTRODUCTION

Located on the central Oregon coast, the Umpqua Eden site (35DO83) has yielded an array of artifacts such as groundstone, lithics, antler tools, bone tools and ornamental objects, ornamental teeth, clay, sandstone and stone smoking pipes, and concretion beads as well as the remains of a wood plank house associated with the Lower Umpqua people. The Umpqua Eden artifact assemblage, excavated by R.E. Ross (Emeritus Professor, Anthropology Department, Oregon State University; Ross and Snyder 1986) during the field seasons of 1978, 1979 and 1980, is one of the five largest assemblages from the Oregon coast. Therefore, the Umpqua Eden site has provided and will continue to provide archaeologists valuable information in understanding pre-contact lifeways of the Lower Umpqua people who inhabited the Oregon coast at the time of Euro-American contact.

Given the large scope of information an archaeologist can obtain from the Umpqua Eden site, I decided to concentrate on the aspects of the site that have not been specifically researched in past archaeological inquiries. The first aspect which has not been addressed in the past is the people who lived at the site. To gain insight on the people of the Umpqua Eden site, I went to the people, the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw. I have been in constant consultation with Patty Whereat, the Cultural Resources

Director of the Confederated Tribes during this project and she has provided valuable information as well as an interpretation of the ethnographic record, which has resulted in a more holistic view of the Umpqua Eden site. In turn, I will attempt to uncover possible women's and men's activity areas of the Umpqua Eden site using ethnographic data, discussions with Patty Whereat and artifacts recovered from the site. Understanding the interactions between people at the Umpqua Eden site may provide an understanding of the sexual division of labor and how rigid that division may have been before Euro-American contact. To engender the archaeological record, I will look at the processes involved in the manufacture of smoking pipes and the cultivation of tobacco, which can give us clues to the interactions between women and men. I will also provide a comparative analysis of clay and stone pipes of the Oregon coast using microscopic analysis, which may reveal possible trade interactions among groups on the coast before Euro-American contact. Subsequently, all of the archaeological inquiry mentioned will help in understanding the Umpqua Eden site and provides us with a clearer picture of pre-contact Lower Umpqua life.

Chapter 2

ANTHROPOLOGICAL AND ARCHAEOLOGICAL FEMINIST THEORY

In past anthropological inquiry, grand theories about culture and culture change have been postulated. This paper rejects a grand theory about humans; however, it will use anthropological and archaeological feminist theory to understand Lower Umpqua occupation at the Umpqua Eden site on the Oregon coast. Particular consideration is given to women and men's activity areas, smoking pipes, and tobacco cultivation.

Anthropological Feminist Theory

The Native American voice is noticeably lacking from archaeological inquiry. It is surprising to me that it has taken a century to include native people in discussions of their culture, material culture, and cultural changes. Fortunately with the advent of feminist theory, we see positive growth in anthropological/archaeological research. Mascia-Lees *et al.* (1989) suggest that feminist theory is skeptical and critical of traditional "universal truths" concerning human behavior and we must question and expand Western definitions of the human. Additionally, "feminism teaches us to take up a particularly moral and sensitive attitude toward relationships by emphasizing the importance of community building to the feminist project, and it also demands scrutiny of our motivations for research" (Mascia-Lees *et al.* 1989:22). Early in my archaeological education, I realized how awkward it was to study Native American cultural remains given my European heritage. However, I felt quite compelled to *work for* the people. This is why feminist research is closely aligned with applied anthropology, which calls for us to ask questions and apply

Native American methods to the solution of problems defined by the people studied (Mascia-Lees *et al.* 1989). In addition, feminist theory calls for us to not reinforce power relations as authoritative speakers, but to frame research questions according to the desires of the oppressed group, by choosing to do work that "others" want and need. In turn, the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw have been consulted and included in my research. Patty Whereat, the Cultural Resources Director for the Confederated Tribes, was asked: "What would you like to see researched or questioned in regards to the Umpqua Eden site project?" Her reply was: "Anything." While no specific questions, wants or needs have been requested by the Confederated Tribes, they have been crucially involved in the project, such as field work, artifact analysis and interpretation of the Umpqua Eden site and the ethnographic record.

My research is based in activism for the tribes, as I believe that the study of past Lower Umpqua peoples lives will enhance their history, which has been tainted with European diseases, assimilation and genocide. This research can be an empowering implement in maintaining their sovereignty. Therefore, this thesis has undergone an approval process by the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw regarding my interpretations and use of anthropological and archaeological feminist thought to uncover possible women's and men's activity areas at the Umpqua Eden site, to look at the smoking pipes and the cultivation of tobacco.

Archaeological Feminist Theory

The study of gender in the archaeological community is in its infancy, as it has only a two decade history. In the past, typical traditional archaeological

categories have ignored and minimalized women's contributions and roles in a culture and in production (Conkey and Gero 1991). We are, therefore, in the developmental stage of an archaeological approach to the study of gender.

Feminist archaeologists have chosen to focus on women as a way to engender the archaeological record because women have been neglected in the majority of archaeological inquiries. This is not to say that archaeological feminist theory is limited to just female issues; it is to inquire into gender *processes* as played out in historical and prehistorical context, which gives us the possibilities for richer prehistories (Conkey and Gero 1991). In short, archaeology can "*use* gender to *do* more and to *say* more; gender can illustrate the ways in which particular roles and relationships in societies are constructed" (Conkey and Gero 1991:12-13).

Archaeological feminist theory is used in this thesis as a means to *engender the archaeological record*. Conkey and Gero (1991:14) argue that engendering the past is "trying to understand how gender 'works' in all of its dimensions: as gender ideology, gender roles, gender relations, as well as a significant source of cultural meanings related to the construction of social lives." Conkey and Gero helped change my idea of "seeing" women and men's activity areas in the archaeological record by stating: "the study of gender cannot be reduced to nor is it dependent upon traditional epistemologies and methods for making gender activities 'visible' in the archaeological record....gender is conceptualized as a process means that we archaeologists must be cautious about any simple equations of male, of female, of gender with any tool, feature, activity, role, or ideology (Conkey and Gero 1991:9)." Since archaeologists analyze categories of material culture (artifacts) of a given group, it has been argued that we also need gender as a "useful category of (pre) historical analysis" (Scott 1986). In turn, Conkey and Gero (1991) suggest that

gender depicts ways in which particular roles and relationships are culturally constructed in relation to the productive and material world. Where manipulation and production of the material realm *can* be conceptually or otherwise associated with women, given present methodologies, we can easily observe the contributions and productive roles of women, and observe how the material objects participate in constituting social identities and social meanings (Conkey and Gero 1991). We can also make inferences about the division of labor and how the social category of "female" may have been constructed and played out in past social systems (Conkey and Gero 1991).

When engendering the archaeological record at the Umpqua Eden site, I investigate the social category of "female," and Patty Whereat (personal communication, 2000) and I discussed the idea of the "two-spirited" individual in prehistory. Feminist archaeologists have broadened the scope of discussion from two fixed categories of gender to three or four (Claassen and Joyce 1997). The "two-spirited" individual (alternatively gendered individuals) challenges the dichotomous male/female gender notion, which has been used in past archaeological inquiry in North America (Callender and Kochems 1983; Fulton and Anderson 1992; Hauser 1990; Roscoe 1988; Whitehead 1981; Williams 1986). In the ethnographic record of the central Oregon coast, there is only one person who mentioned a "two-spirited" person, however, that term was never used (Patty Whereat personal communication, 2000). The two-spirit tradition is a way for a culture to recognize and assimilate some atypical individuals without imposing a change on them or stigmatizing them as deviant (Williams 1986). This cultural institution confirms their legitimacy for what they are. Subsequently, gender roles deal with more than just biological sex. For example, in the Navajo language the word for berdache is *nadle*, which means "changing one" or "one who is transformed." It is applied to hermaphrodites

(those who are born with the genitals of both male and female) and also to "those who pretend to be *nadle*," who take on a social role that is distinct from either men or women, therefore challenging notions of fixed sexuality. Fausto-Sterling (1993) has suggested that there have been more than two sexes identified for our species and has added the following to the list: 1) the so called true hermaphrodites, possessing one testis and one ovary; 2) the male pseudohermaphrodites, who have testes and some aspects of the female genitalia but no ovaries; and 3) the female pseudohermaphrodites, who have ovaries and some aspects of the male genitalia but lack testes. Because of our traditional belief that there is either male or female in our species and a cultural need to maintain clear distinctions between the sexes, today, hermaphrodites have undergone unfortunate medical treatment or sex changes. Alternatively, a society might not look at gender in a limited way, and its values could accept that there are people whose biological equipment cannot enable them to have sex "naturally" with both men and women.

To engender the archaeological record at the Umpqua Eden site, I give particular consideration to women's and men's activity areas and the smoking pipes that were found at the site. My goal is to give each artifact a gender attribution to find these activity areas. I will also look at the processes involved in the manufacture of smoking pipes and the cultivation of tobacco. I will attempt to gain an understanding of the interactions between people, how rigid the sexual division of labor was in prehistory among central Oregon coast native peoples and women's contributions at the Umpqua Eden site. Additionally, I will look at idea of the "two-spirited" individual among central Oregon coast tribes in prehistory. By investigating the possibility of the two-spirit, my goal is to challenge dualistic thought that prevalent in Western thinking.

Chapter 3

OREGON COAST PREHISTORY AND THE UMPQUA EDEN SITE

The Oregon coast is located on a portion of the southern Northwest Coast. This chapter will look at proposed chronological models for this area. In doing so, a picture of coastal adaptations, changes in land use, and how Native American peoples responded to environmental change has emerged. These models will help archaeologists understand how the Lower Umpqua native peoples of the Umpqua Eden site located at the mouth of the Umpqua River used this particular site and adapted to the local environment. The word "adaptation" will be used in this chapter as a way to explain *change* among Oregon coast native groups. The following will illustrate the archaeological evidence that is known today regarding Native American occupation on the Northwest Coast, specifically the southern Northwest Coast.

Northwest and Oregon Coast Prehistory

An Overview

The Pacific Coast of North America is mountainous with narrow coastal plains within close proximity to the Pacific Ocean and is characterized by marine upwelling, where nutrient-rich ocean currents support productive food chains. The entire Northwest Coast ocean, nearshore, and intertidal areas are rich in marine fish, shellfish, sea mammals, sea vegetation, birds, and anadromous fish runs. Moss and Erlandson (1995) propose that most Northwest

Coast peoples relied on marine foods, because terrestrial and plant productivity and diversity generally decreases north of the central Northwest Coast.

However, on the Oregon coast, camas root, berries and greens were also used for subsistence, as seed resources were not as abundant north of the central Northwest Coast (Moss and Erlandson 1995). In general, coastal environments are very dynamic. Inevitably, changes in the environment, such as sea level rise, sand dune transformation, and coastal erosion have altered the lives of precontact people and the archaeological record.

Anthropologists have many different views on coastal adaptations on the Northwest Coast. Investigations of changes in human subsistence have revealed information about the coastal adaptations and cultural complexity of precontact peoples. It has been suggested that the Northwest Coast was initially occupied about 8,000 years ago by people from the interior who were already adapted to terrestrial exploitation (Meighan 1965). This correlates with the orthodox opinion that the New World was peopled by way of Beringia migrating through an interior "ice-free corridor" route (Fagan 1995). However, it has been proposed that Australia's archaeological sites have an antiquity of 30,000 and 55,000 years, reflecting seafaring capabilities (Fladmark 1979; Dixon 1993; Erlandson 1993). Evidence from Australian sites may support the proposition that late Pleistocene peoples moved around the North Pacific Coast using watercraft, but this migration remains circumstantial until coastal sites are found that predate the oldest sites of the interior (Erlandson 1994). It should be noted that very few early Holocene sites have been found on the Northwest or Oregon coasts, probably due to sea level rise, which has destroyed archaeological evidence. It is obvious that more work, such as off-shore archaeological and early coastal site research, is needed to determine how and when people first migrated into the New World.

It has been suggested that 8,000 years ago, the terrestrial-adapted people from the interior, after about 500 years, developed a more generalized subsistence pattern, exploiting both coastal and interior resources (Meighan 1965). However, Meighan (1965) and others (Lyman and Ross 1988; Lyman 1991) proposed that shellfish, sea mammals, and ocean fish provided only a limited amount of the diet at this time in prehistory and that it wasn't until 4,000 to 5,000 years ago that some coastal peoples became primarily dependent on marine resources such as shellfish, sea mammals, and marine fish. This late shift toward dependence on coastal resources has been proposed because of the greater availability of terrestrial and riverine resources on the Oregon coast (Hildebrandt and Levulett 1995; Schalk 1988). However, an early Holocene site on the Oregon coast, Indian Sands (Figure 1), indicates that marine resources were being used over 8,000 years ago (Moss and Erlandson 1995).

Northwest Coast Models

There are two different proposed models of the origin and evolution of Northwest Coast cultures, both of which are based on linguistic data. Drucker (1955) has classified the cultures of the northern and central Oregon coast within the Coast Salish-Chinook Province (Figure 2). This area includes the Gulf of Georgia region, Puget Sound and much of western Washington, and the lower Columbia River and northern Oregon coast. Drucker (1955) classifies south of the Coquille River on the southern Oregon coast area as the Northern California Culture Province (Figure 2). Ethnographic and archaeological evidence suggests that the native cultures of the northern and southern Oregon coasts developed out of rather different cultural traditions (Barnett 1937; Newman 1959). However, Drucker's (1955) model lacks a province for the

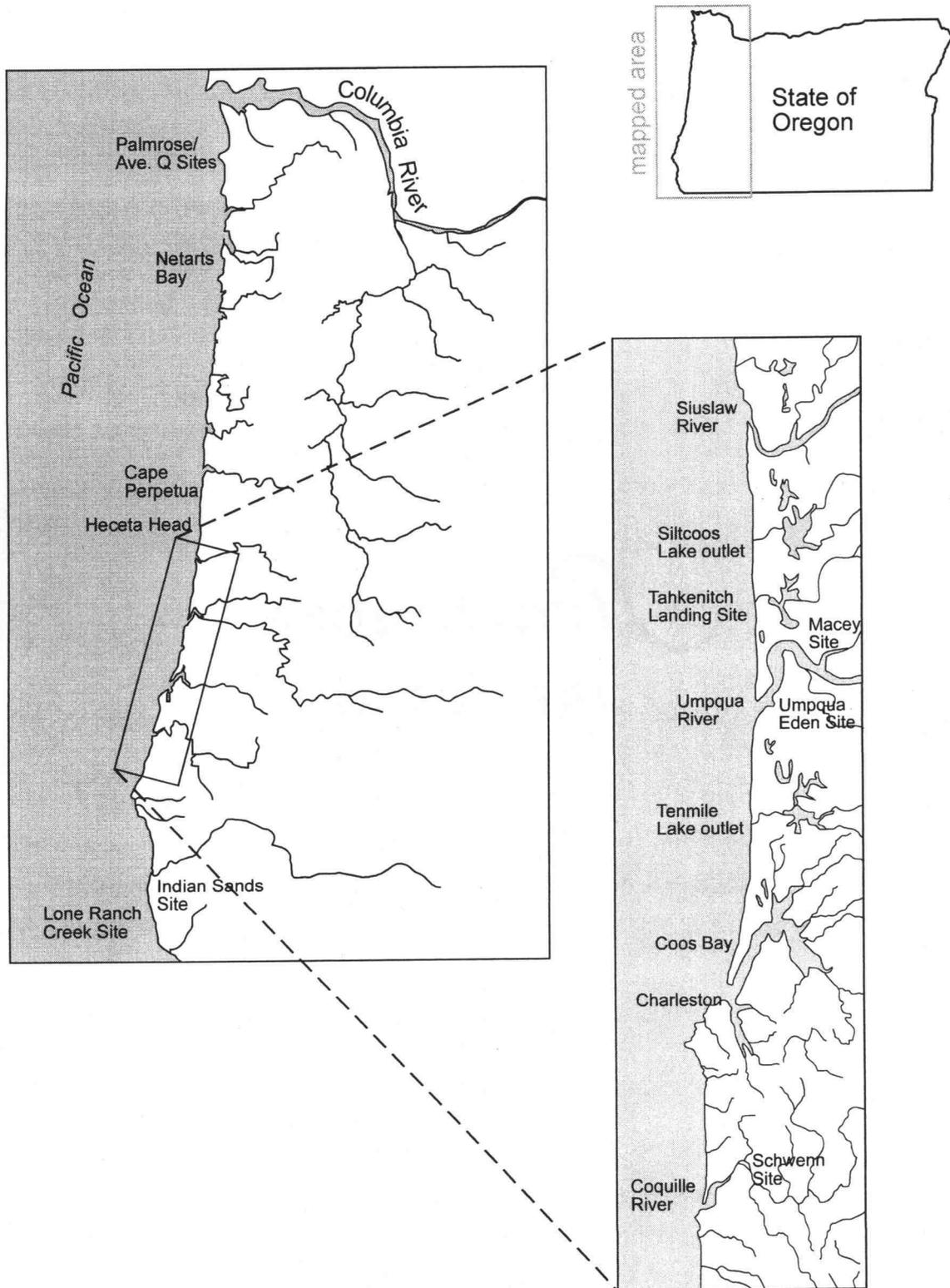


Figure 1. The Oregon coast, showing locations of places mentioned in text.

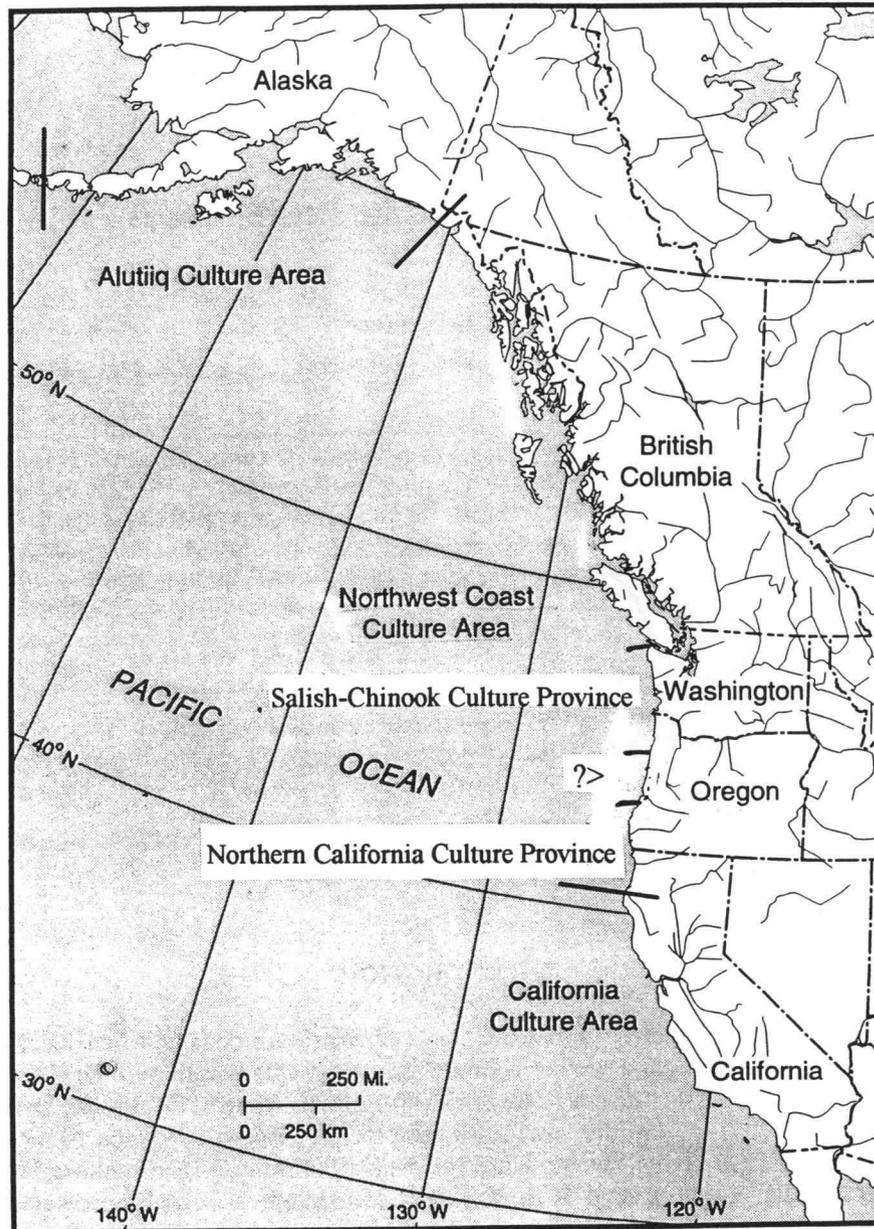


Figure 2. Drucker's Model of Pacific Coast Cultures (adapted from Moss and Erlandson 1995).

central Oregon coast. On the other hand, Lyman (1991) has divided Northwest Coast cultures into the Northern Latitudes and the Southern Latitudes, with the boundary falling in the central Washington Coast area. The Southern Latitude culture area, on the Oregon coast, is where Salish speakers occupied the area north of Heceta Head, Penutian speakers lived between Heceta Head and Coos Bay, with Athapascan speakers south of Coos Bay (Figure 1).

An alternative view of coastal settlement, subsistence and cultural change somewhat similar to Drucker (1955) and Lyman's (1991) theories, has been developed largely from archaeological evidence attained from sites between the Alaskan panhandle and Puget Sound (Borden 1975; Carlson 1983; Fladmark 1986; Mitchell 1971). Fladmark (1986; Table 1) has proposed a general chronology of coastal settlement, subsistence and cultural changes beginning with the time of initial occupation of the northern Northwest Coast to about 5,500 years ago. Fladmark (1986) has called this the Lithic Stage, in which people procured a wide range of foods from land, river, and ocean. The Developmental Stage, which dates from 5,500 years ago to the historic period, is indicative of increased dependence on riverine and marine resources. This stage produced a cultural pattern we see in the historic maritime Northwest Coast cultures. In turn, Fladmark (1986) has divided the Developmental Stage into three phases: Early (5,500-3,500 BP), Middle (3,500-1,500 BP) and Late (1,500 BP-Historic).

The Early Developmental Stage (5,500-3,500 BP) sites reveal thick accumulations of clam and mussel shells. Fladmark (1986) proposes that people were becoming more sedentary during this time due to rich salmon runs and intertidal ecosystems that matured with sea level stabilization. At this time in prehistory, we see status differentiation and the production of art objects in the archaeological record of the Northwest Coast.

Years Ago	Northern Northwest Coast (Fladmark 1986)	Southern Northwest Coast (Minor 1989)	Representative Northern Oregon Coast Assemblages (Number corresponds to map location)	
0	D E V E L O P M E N T A L S T A G E	C O A S T A L A R C H A I C	2. Surf Pines (Sheppard & Chatters 1976); 3. Par-tee and Avenue Q (Phebus & Drucker 1979); 4. Nehalem Bay (Woodward 1986); 5. Netarts Sand Spit (Newman 1959); 6. Three Rox (Murray and Marrant 1983); 7. Whale Cove (Bennett 1988); 8. Yaquina Head (Minor 1989); 9. Seal Rock (Clark 1989); 10. Cape Perpetua (Minor et al. 1983); 11. Neptune (Barner 1982)	
1000				Late
2000		Middle	Middle	3. Palmrose (Phebus and Drucker 1979) 7. Whale Cove (Bennett 1988) 8. Yaquina Head (Minor et al. 1987) 13. Tahkenitch Landing (Minor and Toepel 1986)
3000	Early	Early	13. Tahkenitch Landing (Minor and Toepel 1986)	
4000				
5000	L I T H I C S T A G E	L I T H I C	1. Burkholder (Minor 1984) 13. Tahkenitch Landing (Minor and Toepel 1986)	
6000				Late Lithic
7000				Late Lithic
8000		Late Lithic		
9000	LITHIC STAGE	L I T H I C S T A G E	12. Siltcoos Lake (Minor 1985)	
10,000				Fluted Point Horizon
11,000				

Table 1. Chronology of Northwest Coast prehistory (Connolly 1992:21).

Most of the traits of historic Northwest Coast cultures can be seen in the Middle Developmental Stage (3,500-1,500 BP), in which the production of personal ornamentation and sculpture in stone, bone, antler, and wood is fully developed. The Middle Developmental Stage coincides with a concern with status and wealth that is characteristic in the historic Northwest Coast cultures. The Late Developmental Stage of the last 1,500 years is characteristic of historic native groups and archaeological assemblages that can be attributed to the direct ancestors of these groups.

A Southern Northwest Coast Model

The southern Northwest Coast chronological model mirrors the northern model (Table 1). Minor (1989) proposes a Lithic Stage with two substages. The initial substage, the Fluted Point Horizon, dating 11,500-10,000 years ago, is associated with an isolated specimen found near Siltcoos Lake on the central Oregon coast (Minor 1985; Figure 3). The later substage (10,000-5,500 BP) has been defined as the Late Lithic from artifact assemblages from the Burkholder site near the mouth of the Columbia River (Minor 1984) and the Tahkenitch Landing site located on the central Oregon coast (Minor and Toepel 1986). At both sites, unshouldered foliate and shouldered lanceolate projectile points were recovered (Minor 1989). The Lithic Stage adaptation is hypothesized to be terrestrially oriented (Minor 1989).

Sites on the Oregon coast that have components dating 5,500 years ago have been assigned to the Archaic Stage and are divided into the Early, Middle and Late substages. From 5,500 to 3,500 years ago, termed the Early Archaic, substantial shell midden deposits first appear. Minor and Toepel's (1986) investigations at Tahkenitch Landing reveal a component which dates to this

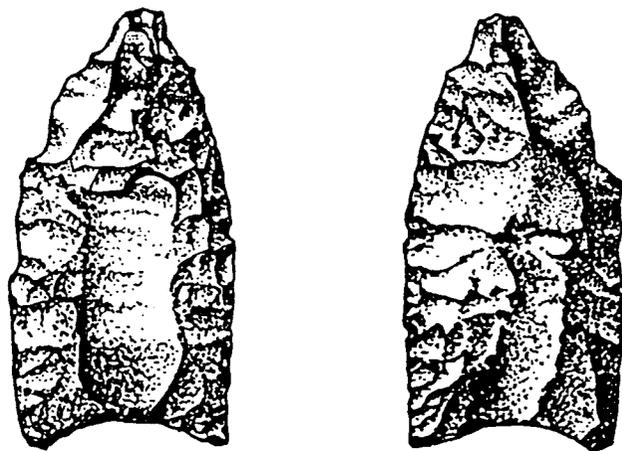


Figure 3. Fluted point from Siltcoos Lake (Minor 1985:36).

stage, in which approximately 5,200 years ago a substantial shell midden of marine shell began to accumulate at what they believe to be an intensively occupied village. Lyman and Ross (1988) suggest the Early Archaic Stage coincides with increased stabilization of sea levels.

The Middle Archaic dates from 3,500 to 1,500 years ago as significant accumulations of marine shell become prevalent along the entire Oregon coast. Once again at Tahkenitch Landing, dates of $3,160 \pm 90$ and $3,040 \pm 80$ years ago have been obtained from what is believed to be the refuse of a village occupation (Minor and Toepel 1986). The Palmrose site located on the northern Oregon coast has 19 radiocarbon determinations between 2,600 and 1,600 years ago and contains a very large shell midden (Connolly 1992). Middle Archaic artifacts from the Oregon coast include unilaterally and bilaterally barbed harpoon tips, composite harpoons, bone and antler awls, needles, wedges, digging stick handles, bird bone beads and whistles, marine shell beads, and elk pendants, which were all carried over into the Late Archaic times, 1,600 years ago to the historic period (Connolly 1992). The Umpqua Eden site reveals all of the mentioned artifacts and faunal materials, which are discussed below. Minor (1989) has noted that continuity in occupation from the Middle to the Late Archaic is rare, and when a site is found with multiple components, there is usually a stratum change. Minor (1989) suggests that most Late Archaic sites are newly occupied and continue to be inhabited into the historic period. In turn, the ethnographic record regarding settlement patterns and lifeways can be traced back to approximately 1,600 years ago (Minor 1989).

Most village sites of the Oregon coast have been radiocarbon dated to the Late Archaic. The Umpqua Eden site of the central Oregon coast reveals a component with a wood plank house floor feature that is indicative of a village site and dates to 200-300 years ago (Ross and Snyder 1986; Figure 1).

The Umpqua Eden Site

Located on the east bank of the Umpqua River, the Umpqua Eden site is on a terrace nine meters above the river at high tide (Figure 1). At low tide, coves containing mud flats indent the river bank to the north and south of the site. A short distance upriver, a small island exists, which is today a resting area for a large herd of harbor seals. The land just behind the site rises steeply, covered by alder and pine forest with heavily vegetated undergrowth. The Umpqua Eden site is located between two coves on the Umpqua River, has a fresh water stream that flows nearby, and the bedrock bench beneath the site make a good natural boat landing. Patty Whereat (personal communication, 2000) noted that the shores along the Umpqua River rise very steeply up into the Coast Range and therefore, there are not many terraced shores along the Umpqua River where people could set up camp. Subsequently, it is not surprising to Patty that there is a cultural site at Umpqua Eden.

Initial archaeological investigations at the Umpqua Eden site were undertaken in 1974 by Peter Stenhouse (1974) and the records and collection are now at the Douglas County Museum in Roseburg, Oregon. Unfortunately, no radiocarbon dates were obtained in association with these excavations and the report on this work is preliminary (Stenhouse 1974). Consequently, this particular investigation at the Umpqua Eden site will not be used in this thesis.

Excavations were conducted at the Umpqua Eden site over a span of three years (1978, 1979 and 1980) by Dr. Richard Ross (Emeritus Professor, Anthropology Department, Oregon State University; Ross and Snyder 1986). Three major components were identified: 1) a relatively undisturbed prehistoric deposit dating 3,010 years ago to Euro-American contact; 2) a late intrusive disturbance into the older site, which dates to 200-300 years ago; and 3) a post-1850 historic component (Ross and Snyder 1986).

Stratigraphy

Ross and Snyder (1986) report that the site contains four major and three minor strata deposited over the last 3,000 years (Figure 4). A date of $2,960 \pm 45$ BP on charcoal from Stratum I's base places the occupation of the site much earlier than any previously examined on the southern Oregon coast (Ross and Snyder 1986). Stratum I is described as a layer of clay containing few lithic artifacts. Stratum II is labeled as an early, thin (15 cm thick) shell midden (Ross and Snyder 1986). It is thought to be undisturbed, and is said to contain large, single-piece bone harpoons with two or more unilateral barbs, unilateral or bilateral line guards, and flat to slightly rounded bases (Lyman 1991). Stratum II also produced large lithic projectile points with convex blade edges, rounded shoulders, and slightly contracting stems and rounded bases, and abundant fish and mammal remains. Associated with lower portions of Stratum III and the upper portions of Stratum II are items of clay including pipes, stylized figurines and a number of clay discs (Ross and Snyder 1986; Lyman 1991). An analysis of the smoking pipes will be discussed in the next chapter of this thesis.

Stratum III consisted of charcoal and fire-cracked rock concentrations, small projectile points, and few faunal remains. No shell midden deposits were found in this stratum. Stratum IV is labeled the late shell midden and contained small composite harpoons, bone fishhooks, small projectile points, and abundant fish and mammal remains (Ross and Snyder 1986). Ross and Snyder (1986) suggest that Stratum III reflects repeated use of the area as a hunting, fishing, and collecting camp by small groups of people on a frequent basis over hundreds of years. In addition, there are only two instances where the configuration of the hard surfaces appear to be the result of purposefully designed shelter floors rather than relatively amorphous activity areas (Ross and

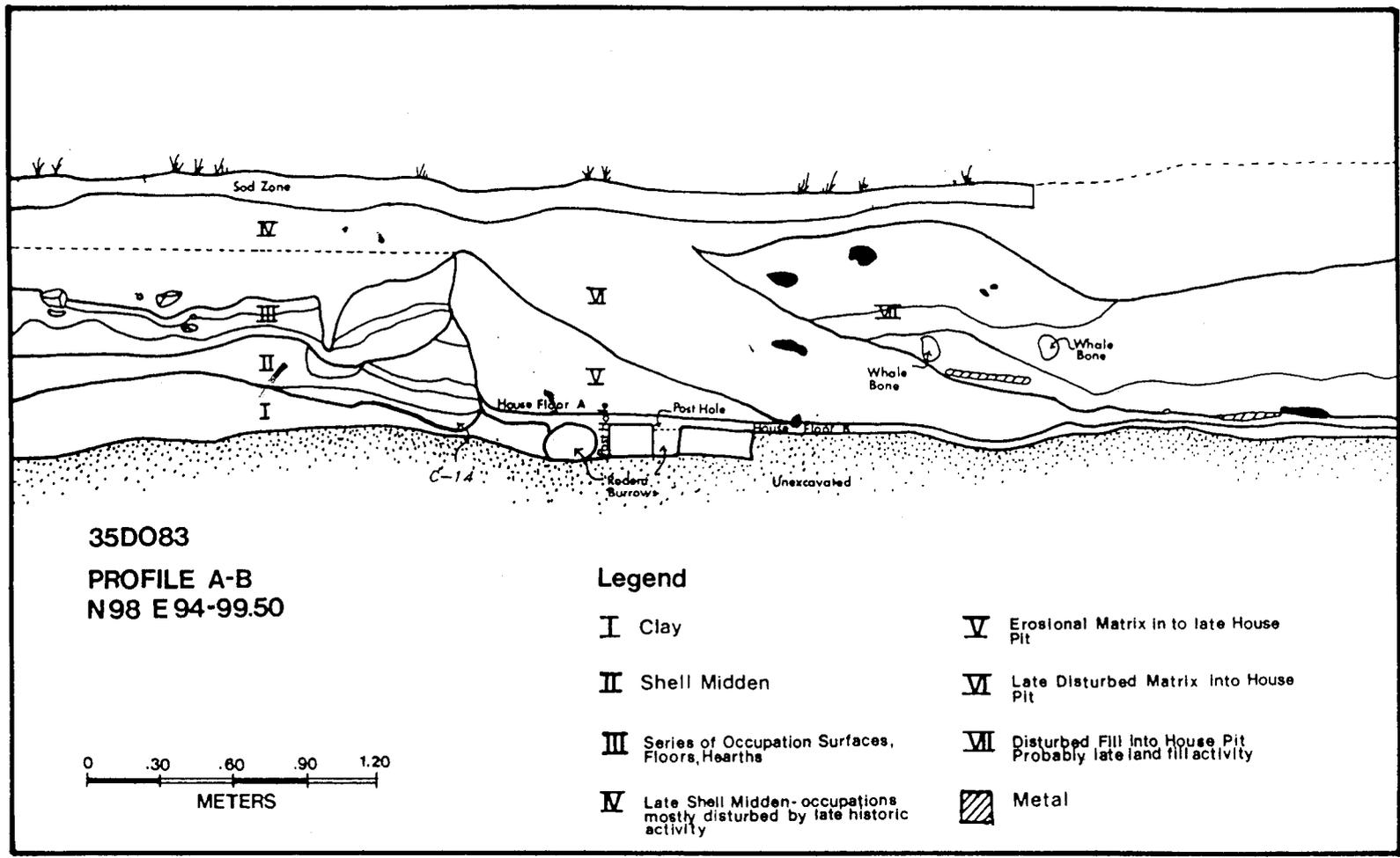


Figure 4. Umpqua Eden profile (adapted from Ross and Snyder 1986).

Snyder 1986). These interpretations are indicative of the Northwest Coast model of the *seasonal round* subsistence strategy.

Ross and Snyder (1986) noted that the early midden reveals large bone harpoons with two or more unilateral barbs (Figure 5), unilateral and bilateral line guards, and flat to slightly round bases. In the later strata, the harpoon styles change dramatically and are smaller, composite harpoons consisting of a long slender bone point which inserts into a socket formed by two barbed pieces (Ross and Snyder 1986; Figure 5). This change in harpoon styles has been suggested to represent a change in resource exploitation as the earlier harpoons are for hunting sea mammals and the later harpoons for fishing (Ross and Snyder 1986).

Stratum IV includes part of a later prehistoric shell midden, which may have been associated with a late prehistoric aboriginal wood plank house intrusion into the earlier cultural deposits (Ross and Snyder 1986). Excavations revealed a trench-like disturbance measuring 30 meters long and 8 meters wide, reaching into the clay zone (Ross and Snyder 1986). Only 35 square meters were excavated of a total estimated 250 square meters within this feature. It has been interpreted as being strongly similar to mid-nineteenth century drawings of Umpqua wood plank houses (Ross and Snyder 1986; Figure 6). However, the wood plank houses built at Fort Umpqua during the early reservation period are probably a more accurate architectural design, (Figure 7 & 8) as the horizontal planks on the front of the house shown in the drawings are not indicative of Northwest Coast architectural design of wood plank houses (Patty Whereat personal communication, 2000). Ross and Snyder (1986) suggest that sometime within the terminal prehistoric period, a Native American group settled on the site and after excavating a large pit through cultural deposits accumulated over the previous 3,000 years, a large semi-subterranean wood plank structure was

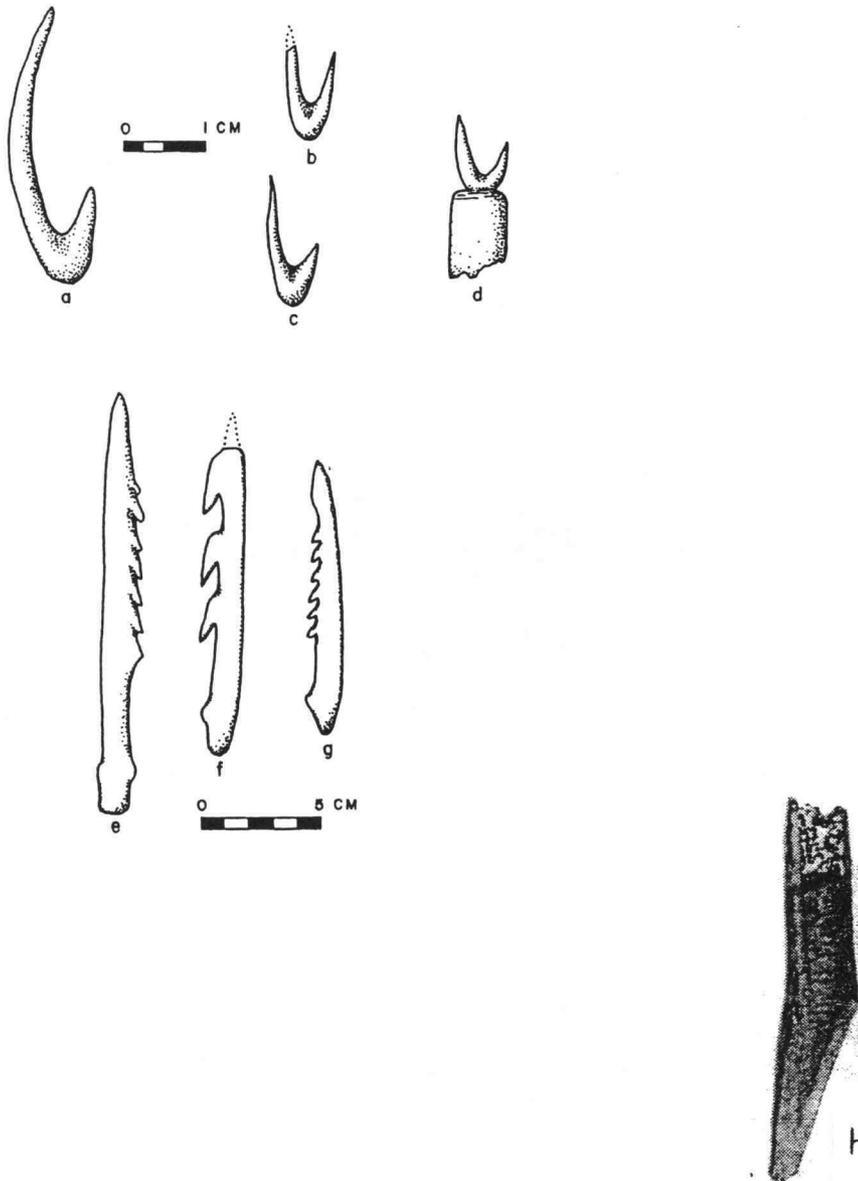
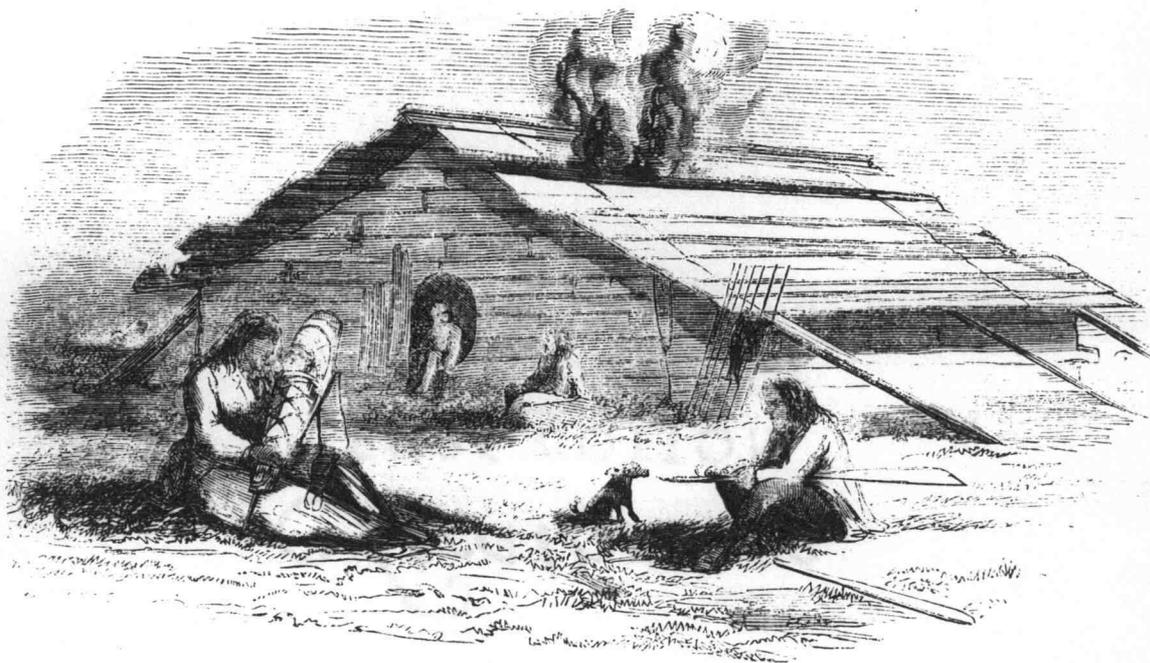


Figure 5. a-d) Bone fishhooks; e-g) unilaterally barbed harpoons (Lyman 1991:122); h) part of a composite harpoon head of bird bone from the Umpqua Eden site (Ross and Snyder 1986:91).



WINTER LODGE OF THE UMPQUA INDIANS.

Figure 6. Winter village of the Lower Umpqua Native Americans at the mouth of the Umpqua River from *Frank Leslie's Illustrated Magazine*, April 24, 1858, Oregon Historical Society, #OrHi 45809a.

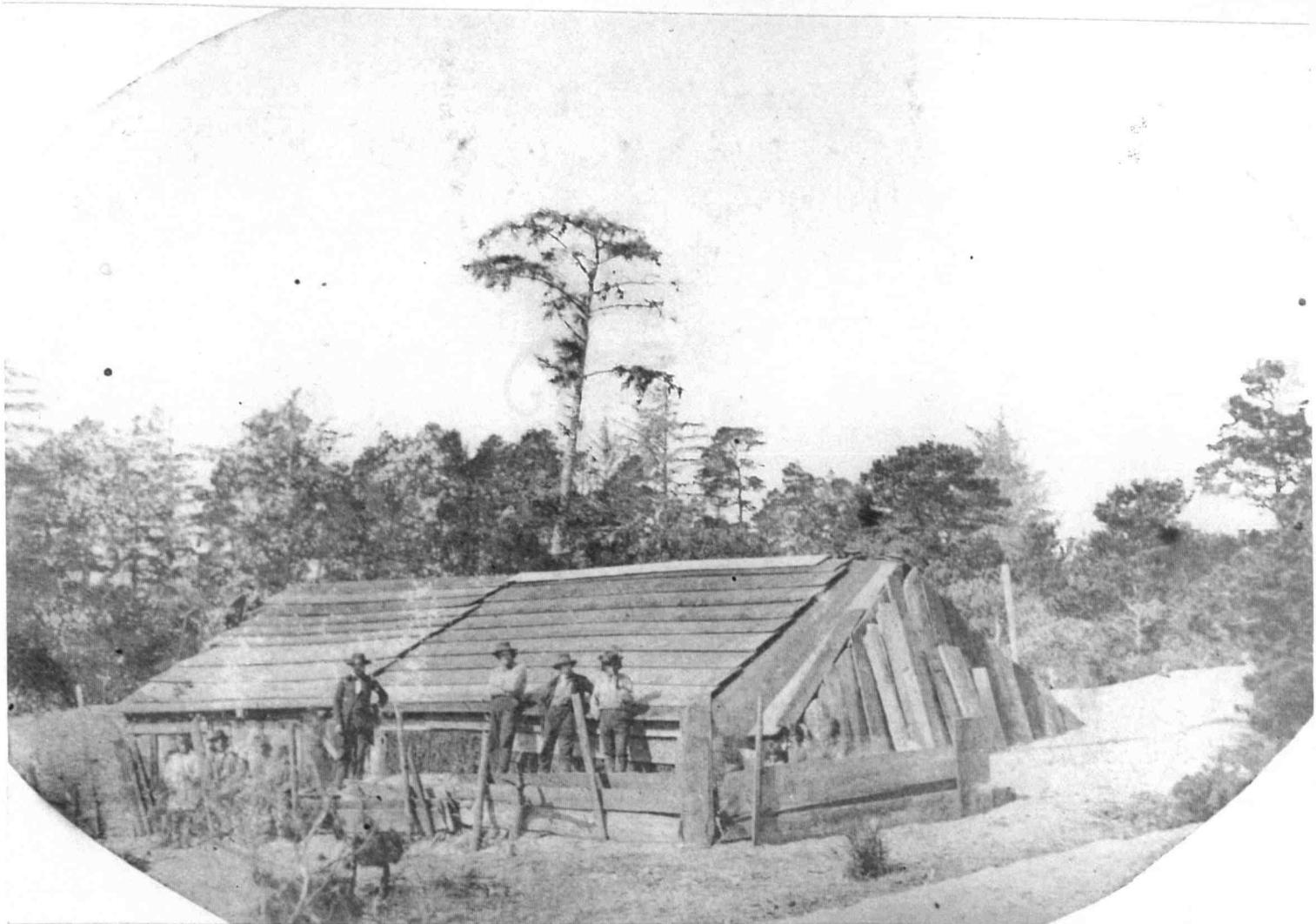


Figure 7. Wood Plank House at Fort Umpqua, ca. 1857, Oregon Historical Society, #OrHi 1657.



Figure 8. Wood Plank Houses at Fort Umpqua, ca. 1857, Oregon Historical Society, #OrHi 50335.

built. The excavated soils were piled outside around the base of the planks to further insulate the structure. Ross and Snyder (1986) believe that this was a short-lived period of occupation at the Umpqua Eden site.

Stratum V consists of two additional juxtaposed floors of a late prehistoric-early historic long plank house (Lyman 1991). Subsequent erosion gradually filled in the depression of the structure, leaving a large pit (Ross and Snyder 1986). Euro-Americans moved onto the site after 1856 when the Oregon Superintendent of Indian Affairs created the Umpqua Sub-agency located on the north side of the Umpqua River, across from the Umpqua Eden site to incarcerate the Lower Umpqua and Coos people (Beckham 1977). Subsequently, the rectangular pit became a convenient place to discard waste (Stratum VI) (Ross and Snyder 1986). In addition, the structural remains and associated debris (Stratum VII) from the Euro-American occupation was pushed into the depression, probably by loggers near the turn of the century (Ross and Snyder 1986).

Additional archaeological research of the Umpqua Eden site was conducted by R. Lee Lyman. Lyman's (1991) original purpose in studying the Umpqua Eden collection was to assess the mammalian faunal history of the Oregon coast mammals. He chose this site to begin a study of that history because at that time (mid-1984), it was the oldest dated site in the area, appeared to have a continuous stratigraphic record spanning the last 3,000 years, and the mammalian faunal collection was large. In addition, a relatively large sample of artifacts was recovered. However, he did not study all lithic debitage nor did he compare the list of artifacts he generated with the field catalogues for the site. Lyman (1991) believed that the collection probably would not reveal many details of adaptation or change during the past 3,000 years; however, he did not give an explanation for this proposition.

Lyman (1991) modified Ross and Snyder's (1986) sequence of seven strata into a set of five temporally distinct *analytic zones* (Table 2). Analytic Zone I consists of Ross and Snyder's (1986) Strata I and II. Lyman (1991) combined the two strata together because it is unclear if the cultural material in Stratum I represents a separate occupational episode or vertical displacement of materials from Stratum II. A single radiocarbon date of $2,960 \pm 45$ BP from the contact zone between Strata I and II is the only available temporal control of Zone I.

Zone II consists of part of the lower portion of Ross and Snyder's (1986) Stratum III. A single radiocarbon date of $1,970 \pm 45$ BP is available as temporal control for Zone II. It appears that much of the sediment that might otherwise be included in Zone II was disturbed by later occupants.

Zone III consists of Ross and Snyder's (1986) Stratum IV and the upper portion of their Stratum III. This zone contains several occupational features on which the 1979 and 1980 excavations were focused. A series of five radiocarbon dates were taken: 240 ± 40 , 350 ± 45 , 440 ± 45 , 620 ± 55 , and 870 ± 40 BP. Therefore, Lyman (1991) treats Zone III as spanning the time period between approximately 1,000 and 200 years ago. A major portion of the cultural material recovered from the site is associated with Zone III. Zone IV is essentially the wood plank floor feature (Lyman 1991).

Zone V is made up of all other excavated matrix, including Ross and Snyder's (1986) Strata V, VI, and VII, and all materials from mixed or unknown stratigraphic contexts. Lyman (1991) suggests that cultural materials associated with this zone probably date to the entire occupational span of the site (minimally the last 3,000 years).

Strata ¹	Description	Analytic Zone ²	C14 Dates BP	Lab No.
V, VI, VII	Erosional and disturbed matrix	UE V ³		
	Long-house floor ⁴	UE IV		
III (upper) and IV	Upper portion of sandy loam, and late shell midden	UE III	240 ± 40 350 ± 45 440 ± 45 620 ± 55 870 ± 40	DIC-3263 DIC-3265 DIC-3262 DIC-3264 DIC-3261
III (lower)	Sandy loam rich in fire-cracked rock; series of occupation surfaces, floors, hearths	UE II	1970 ± 45	DIC-3260
II	Thin midden averaging less than 15 cm in depth	UE I	2960 ± 45 ⁵	DIC-1174
I	Deep clay zone, culturally sterile below 10 cm interface with overlying midden deposits			

¹ from Ross and Snyder (1986)

² from Lyman (1991a:106-112)

³ UE V also includes all other material from mixed or unknown stratigraphic contexts; over half of the excavated sediment volume (61.4 m³) is included in UE V (Lyman 1991a:112)

⁴ estimated to date from AD 1700-1800 (Ross and Snyder 1986:83)

⁵ from base of Stratum II (Ross and Snyder 1986:83)

Table 2. Correlation of stratigraphy and analytical zones at the Umpqua Eden site (SHPO 1994:6).

Artifacts

Ross and Snyder (1986) recovered 270 artifacts in their 1978 excavation season, which come from an excavated area of approximately 29 m³ (Table 3; Lyman 1991). During the two additional field seasons at the site, they excavated 115m², recovering over 410 lithic artifacts (not counting lithic debitage, or clay nodules and discs) and 350 bone/antler artifacts (Lyman 1991). Five artifact classes not represented in the 1978 inventory are present in the three-season total inventory (Table 3; Lyman 1991). Lyman (1991) and I note that there were many discrepancies in Ross' field catalog and the catalog he prepared for publication. Given these discrepancies and Lyman's (1991) failure to resolve them, he did not devote considerable attention to the artifact collection.

Lithic artifacts

Ross and Snyder (1986) suggest that early projectile point styles are large and basically lanceolate in form, (some have stems, others do not) and late styles are smaller and typically have basal or side notches (Table 3; Figure 9). They do not, however, present frequency or detailed stratigraphic data for their point types and had only one associated radiocarbon date at the time of their analysis. Consequently, we are left with the relative chronological occurrence seriation of point types (Lyman 1991).

The knife/biface category includes those specimens that are generally larger than projectile points and which were not hafted and/or were not yet completely manufactured (Lyman 1991). Knives are symmetrical with convex edges and appear to be finished and have been used (Lyman 1991). The biface (preform/blank) group includes bifacially worked specimens that are fragmentary and/or unfinished or utilized and these may have been intended to

Analytic Zone						
Artifact class	UEI	UEII	UEIII	UEIV	UEV	Totals
<u>Flaked Stone</u>						
Projectile Points		4	46	1	140	191
Knives/Bifaces	5	3	15		18	41
Scrapers			3		6	9
Gravers, Drills, Perforators			2		5	7
Used and Worked Flakes	3	1	13		27	44
Cores			3		4	7
<u>Cobble Tools</u>						
Hammerstones		1	4		10	15
Edge-Battered Cobbles		2	2		3	7
Cobble Choppers			4		9	13
Used Cobble Spalls	1	2	3		14	20
Pestles			2		7	9
Stone Bowl					1	1
Ground Stone			3		9	12
Sinkers	1		4		6	11
<u>Miscellaneous Stone</u>						
Adze			3		1	4
Abraders		2	3		2	7
Sandstone Pipe		1			1	2
Soapstone Pipe					1	1
Worked Soapstone			1		1	2
<u>Clay Artifacts</u>						
Pipes				4	9	13
Bowl					1	1
Nodules/Balls and Discs	9	2	23	61	92	187
Nondescript			2		5	7
<u>Bone/Antler</u>						
Fishhooks		1	3		12	16
Bone Points			14		94	108
Harpoons		1	6		16	23
Aws/Perforators		1	2		11	14
Wedges	1	6	5		46	58
Worked Bone/Antler	1	8	20	1	85	115
Ornamental			5		11	16
Totals	21	35	191	67	647	961

Table 3. Summary of artifacts recovered during 1978-1980 excavations at the Umpqua Eden site (SHPO 1994:7).

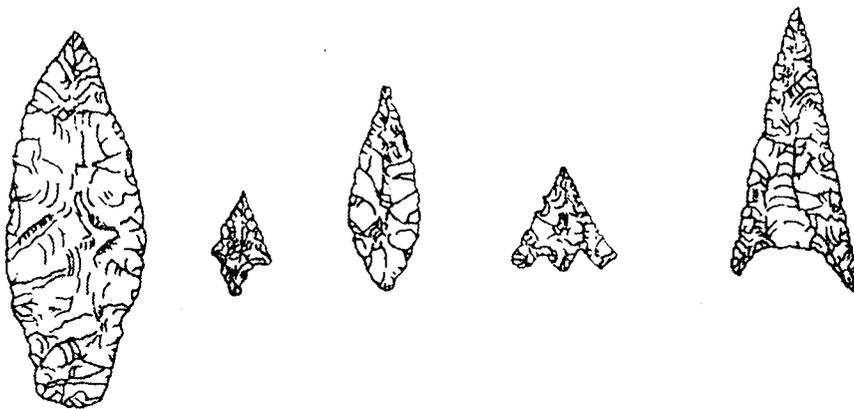


Figure 9. Projectile points from Umpqua Eden site (Ross and Snyder 1986:93).

be projectile points or knives (Lyman 1991). The large obsidian biface and obsidian biface fragment categories include specimens Lyman (1991) believes are analogous to wealth blades reported for northwestern California.

Lyman (1991) suggests that the utilized flakes from the site were used mostly for cutting, light-duty whittling and scraping. Few edge-angles exceed 50 degrees indicating minimal heavy duty scraping and whittling and this tends to correspond to the low abundance of scrapers (Lyman 1991).

The cobble tool category contains heavy-duty tools (Figures 10 & 11). Hammerstones are short, end-battered cobbles; pestles are long, end-battered cobbles which have been modified by manufacturing (Lyman 1991). Edge-battered cobbles show crushing and flaking of edges rather than ends, and no or minimal indication of manufacturing modification (Lyman 1991). Cobble choppers were made by breaking several flakes off an end or edge, either unifacially or bifacially, and show crushing and battering of working edges (Lyman 1991). Utilized cobble spalls are large primary or secondary flakes removed from cobbles and show some use-wear in the form of flaking or crushing of lateral and/or distal edges (Lyman 1991).

A single specimen identified as a stone bowl/mortar base of a granite type of material is fragmentary and has been hollowed out from battering and crushing (Lyman 1991). Lyman (1991) identified four adzes, which have been ground into shape and were probably used for wood-working.

The sinker category includes those notched and grooved cobbles that are traditionally called sinkers or bola stones (Lyman 1991; Figure 11). The large notched cobbles are usually thought to be net sinkers. The small grooved sinkers have been ground into shape and are variously encircled with grooves approximately 2-3 mm wide and about 2 mm deep. These probably functioned



Figure 10. Groundstone from the Umpqua Eden site: pestles/wood stake weir hammer; antler wedges; unknown object with artistic motif.

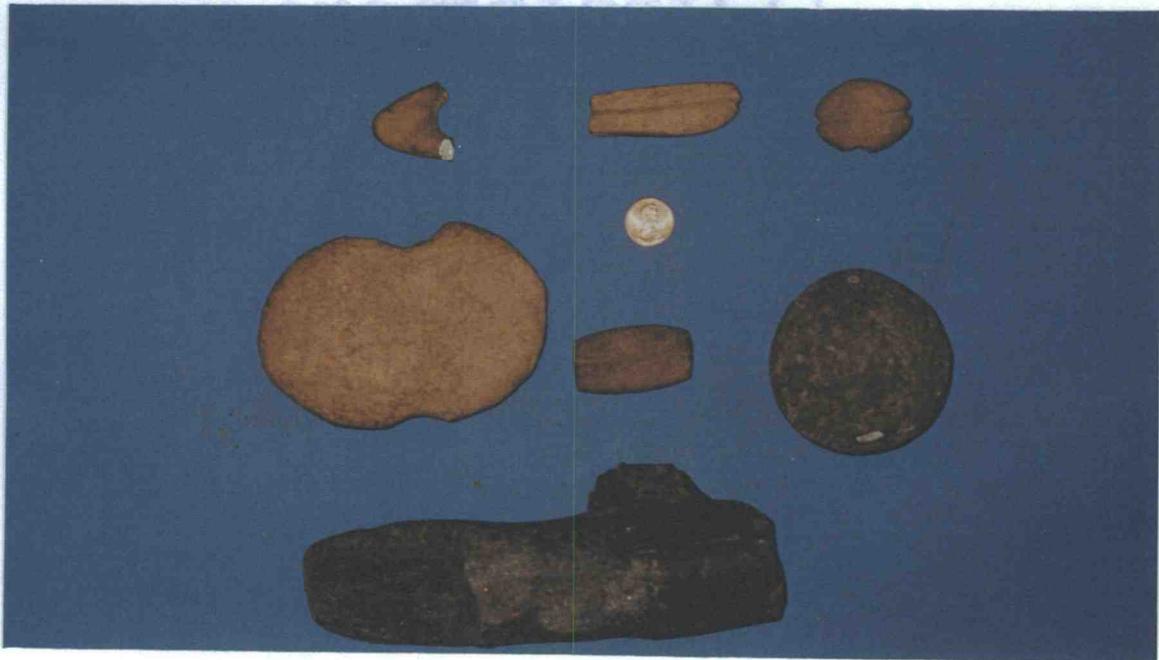


Figure 11. Net weights (top); pestle/wood stake weir hammer found at the Umpqua Eden site.

as sinkers for fishing lines. The small notched sinkers may also be line sinkers as they seem too small to have securely anchored nets.

All cores are of cryptocrystalline silicates, and have had numerous flakes broken from them. The presence of cores suggests some manufacturing of stone tools took place at the site, but Lyman (1991) did not examine the associated debitage.

Obsidian debitage constitutes one of the rather fascinating non-tool categories as this material is suggestive of technological processes and possible trade networks. Lyman (1991) suspects that the small obsidian nodules were collected from the gravel bars of the Umpqua River.

Bone and antler artifacts

Items with curved shanks have been called "fishhooks" by Ross and Snyder (1986; Figure 5). They vary in size from a maximum length of 4.5 cm to a minimum length of 1.2 cm. One of the smaller fishhooks is still in its manufacturing form, and is attached at the apex of the V (base of the J-curve) to a small, flat, rectangular piece of bone (Lyman 1991). It appears that the hooks were shaped by cutting and grinding from one end of a large blank, with removal of the completed hook constituting the last step of manufacturing (Lyman 1991). The range in hook size suggests possible variation in fish species procured by hook and line angling (Lyman 1991).

Lyman (1991) grouped bone points into three size classes (Figure 12). The smallest points are almost needle-like in size; the larger points may have served as tips and/or as foreshafts. Also identified were bone awls/perforators, which tend to be larger (Lyman 1991; Figure 13).



Figure 12. Bone points from the Umpqua Eden site.

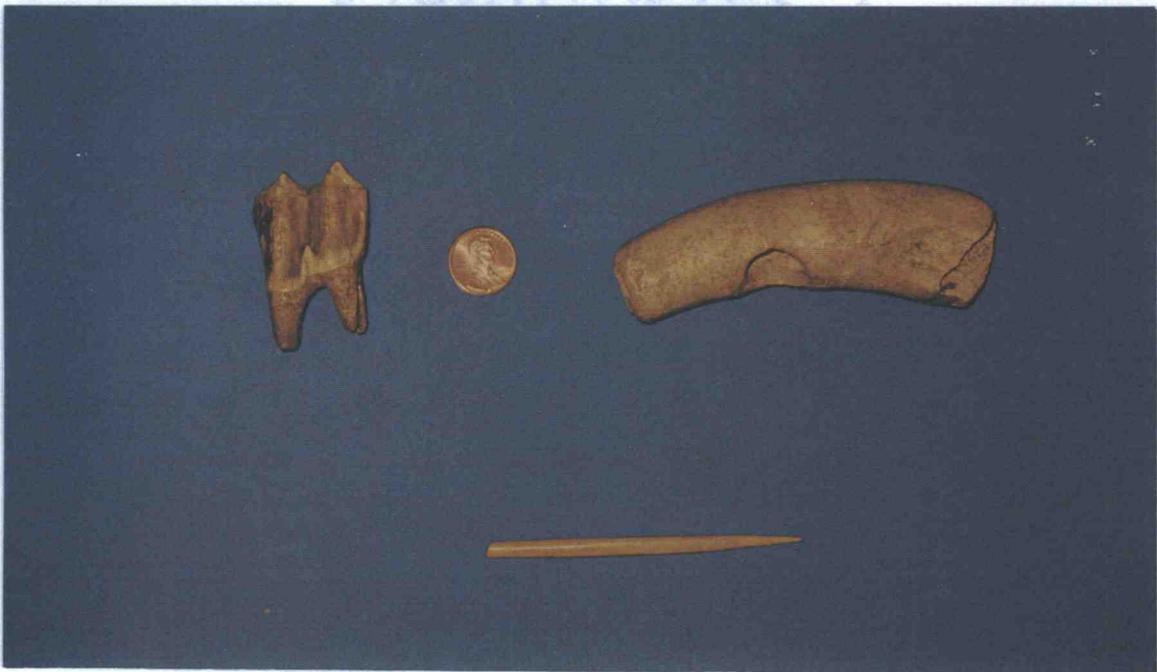


Figure 13. Elk tooth, digging stick handle and an awl from the Umpqua Eden site.

Two basic types of harpoons are represented: a single-piece unilaterally barbed type and a multi-piece composite type (Lyman 1991; Figure 5). In addition, wedges were recovered as well as worked whale bone (Figure 10). Little marrow is found in the whale bone, which suggests a good source of oil (Lyman 1991).

Additional artifacts are ornamental such as elk tooth pendants, etched beaver teeth, and bird bones decorated with cross-hatching, parallel and diagonal designs (Ross and Snyder 1986; Figure 14).

Clay artifacts

Lyman (1991) notes a number of what appear to be sun-dried clay objects. Some are balls, discs, and figurines; others are pipes. Lyman (1991) suggests that many of these specimens appear to represent root or worm-hole casts. There were discrepancies using Ross and Snyder's (1986) information on the smoking pipes, as they have all of the pipes corresponding with the stratum dating $1,970 \pm 40$. However, my research of the field catalogs is in agreement with Lyman's (1991) description, placing the sandstone pipe in the stratum dating $1,970 \pm 40$ and all of the other pipes in the stratum dating 240 ± 40 . Later in this thesis, I will provide an analysis of these items.

Features

Lyman (1991) made no attempt to extract detailed information on occupational features from field notes. Ross and Snyder (1979 in Lyman 1991:124) describe the "hard-packed floor" from Zone II as having "grooves around it indicating the remains of edge-placed planks" and suggest the outline of the house indicates it was a "mat-covered structure."



Figure 14. Ornamental objects from the Umpqua Eden site: (top left to right): bone pendent, elk tooth pendent and girl's etched beaver tooth bracelet.

Associated with Zone IV are two juxtaposed wood plank house floor features (Lyman 1991). These floors also was marked by a hard-packed clay surface.

The Fauna

No stratigraphic information was provided for the recovered faunal remains, which are key elements in understanding subsistence strategies and settlement pattern changes of the native people who once lived at the Umpqua Eden site. The following is a list of the species identified.

Invertebrates: marine and freshwater shellfish

Lyman (1991) did not identify taxa in the extensive shellfish collection from the site. Ross and Snyder (1986) report "common taxa" include cockle, bay mussel, bent-nose clam, butterclam, and horse mussel. They also report that sand clams, littleneck clams, gaper clams, and horse clams occur in limited quantities (Ross and Snyder 1986). With the single exception of the bay mussel, all listed taxa prefer sandy to muddy bottoms. All taxa live in relatively calm, protected waters. In turn, it appears that all these shellfish could have been taken from estuarine habitats adjacent to the site (Lyman 1991).

Fresh-water pearl mussel were recovered from the site. This indicates that people were exploiting riverine habitats some distance upstream of the site, possibly at Winchester Creek (Lyman 1991).

Vertebrates: birds and fish

Lyman (1991) made no attempt to identify the extensive collection of bird remains recovered from the site. Ross and Snyder (1986:95) suggest "as much as 85% of the total bird remains" represent various types of ducks, and other represented taxa include herons, cranes, swans, gulls and murre. Many of the bird bones display clear evidence of butchering in the form of cut marks (Lyman 1991).

The huge collection of fish remains recovered from the site have not yet been studied in detail. Lyman (1991) recognized bones of salmonids and sturgeon in the collection. Ross and Snyder (1986) report that starry flounder and other flat fish remains are common, with lesser amounts of greenling, surf perch, herring, and buffalo sculpin present in the collection.

Mammalia: terrestrial, domestic terrestrial and marine mammals

In Zone I, an abundance of beaver, deer, elk, sea otter and harbor seal remains were recovered. In Zone II, very few mammalia remains or faunal remains in general were recovered (Lyman 1991).

Zone III reveals numerous harbor seal remains, which were the most abundant, in addition to sea lion, fur seal and sea otter remains (Lyman 1991). Elk and deer dominated the terrestrial mammal remains of Zone III, in addition to grizzly and black bear, cougar, lynx, raccoon, mink, beaver, rabbit, muskrat, fisher, and dog (Lyman 1991).

Ross and Snyder's Conclusions

Based on faunal remains, Ross and Snyder (1986) conclude that the site was not limited to a single season and that species other than seals, salmon and

shellfish were used on an opportunistic basis. However, Ross and Snyder (1986) also proposed that the site was used on a seasonal basis and provide no justification for this interpretation.

Lyman's Conclusions

Aside from whale bone, there is an increase in the abundance of terrestrial and riverine (beaver and river otter) remains at the expense of pinnipeds and sea otters after 1,000 years ago (Lyman 1991). Deer and elk, for example, increase in relative abundance from 11 percent to 24 percent after 1,000 years ago. The notable change in sea mammals (excluding whales) is the drop from 60 percent to 48 percent shown by harbor seals after 1,000 years ago. Remains of newborn harbor seal, California sea lion, and Northern fur seal occur in both Zones I-II and III, suggesting minimal change in seasons of pinniped exploitation.

The ratio of stone sinkers to projectile points changes from 1:4 to 1:11.5 after 1,000 years ago. Lyman (1991) suggests that it appears that terrestrial hunting gear (assuming lithic projectile points did not tip harpoons) increases in abundance relative to estuarine hunting and fishing gear. However, Lyman (1991) does not propose interpretations about the occupation of the Umpqua Eden site.

A more detailed faunal analysis and definition of the site boundaries was provided by Heritage Research Associates in 1994 in conjunction with nomination of the Umpqua Eden site to the National Register of Historic Places (State Historic Preservation Office (SHPO) 1994; Figure 15). Previous excavations at the Umpqua Eden site recovered faunal materials through 1/4-inch mesh screen. Recent archaeological investigations along the Oregon coast

have shown the need for 1/8-inch mesh screen to insure recovery of even very small cultural and faunal material. Subsequently, the recent identification and analysis of a 1 X 1 meter test pit reveals 45,000 bones (SHPO 1994).

Preliminary results indicate that the fish assemblage is dominated by flatfish (particularly starry flounder), hake, and herring. Sardine remains were also recovered. Salmon (undetermined species), various surfperches, tomcod, sculpins (primarily Pacific staghorn sculpin), sturgeon, and a variety of other, less abundant, fish were also represented (SHPO 1994). Few mammalian remains were recovered and were identified as deer, elk, and harbor seal. Likewise, very few bird remains were recovered (SHPO 1994). It is assumed that Heritage Research Associates will provide a summary in the future of their investigations at the Umpqua Eden site enabling archaeologists to make further interpretations of the site's use.

Understanding Mobility/Sedentism at the Umpqua Eden Site

Abundant resources were available for the people that lived at the Umpqua Eden site, where they took food from the ocean, river, estuary and land. Kelly (1992) notes that many archaeologists simply assume food abundance from subjective evaluations of a region's potential; however, the Umpqua Eden site faunal assemblage is diverse and not limited to one season (Ross and Snyder 1986). Additionally, Kelly (1992) suggests that "abundance" is relative and to know what one resource offers means knowing what it offers relative to others. Given the 1/4 inch screen methods used in the 1978, 1979 and 1980 field seasons, lack of plant remains, and the discrepancies in the cataloging of faunal remains at the Umpqua Eden site, a biased interpretation would be formed. In turn, it is difficult to measure mobility/sedentism at the

Umpqua Eden site by looking at the faunal assemblage. We can be encouraged, however, by HRA's investigation at the Umpqua Eden site recognizing the use of 1/8 inch screening methods and explicit measures taken in the cataloging of materials recovered.

It has been suggested that there is no single continuum of mobility (Eder 1984). In addition, it is a Western society construct that groups of people in prehistory are moving from a mobile subsistence strategy towards a sedentary lifestyle, because we assume sedentism to be efficient and movement as burdensome (Kelly 1992). For example, Rafferty (1985) argues that sedentism is a more efficient form of resource procurement, because it saves the effort of moving children, older and sick individuals. When assessing the Umpqua Eden site, an archaeologist can come to these assumed conclusions by looking at the wood plank house floor feature as a product of sedentism. Ames and Maschner (1999) suggests that substantial houses demonstrate the development of some degree of sedentism and of significant economic and social changes accompanying and causing sedentism. For instance, a shift from round and curvilinear dwellings to rectangular surface structures have occurred several times in world prehistory (Ames and Maschner 1999). Ames and Maschner proposed that "this shift is usually thought to indicate the appearance of more formally organized or structured households, since square spaces are more easily organized and formally arranged than round spaces (Ames and Maschner 1999:160)". In addition, rectangular structures met crucial functional needs such as a storage economy (Ames and Maschner 1999). However, Kelly (1992) noted that even substantial housing may not indicate a termination of residential movements. Northwest Coast peoples were partially dismantling their houses in the spring to move to a fishing location; consequently, archaeologists cannot assume that a wood plank house floor feature is indicative of sedentism.

In past archaeological inquiry regarding reduced residential mobility, site size and artifact density have been used as indicators (Rafferty 1985). However, Kelly (1992) argues that the distribution of remains is a better indicator of residential mobility because it appears to be directly related to the length of time a location is occupied. For example, instead of sweeping trash off to the side as mobile foragers do, sedentary people use trash areas located farther from the houses than those in camps of residentially mobile groups (Kelly 1992). Given that the Umpqua Eden site was not completely excavated (Figure 15) and archaeological investigations surrounding the Umpqua Eden site have not occurred, an interpretation of the distribution of remains would again be biased, as we are unable to assess the distance people traveled to dispose of their trash.

The environment of the Oregon coast is very dynamic, which has affected the archaeological record and interpretations of mobility have been postulated. For example, at the Tahkenitch Landing site (Minor and Toepel 1986) people were gathering and hunting marine species from approximately 5,200 to 3,000 years ago and intensively using the site. Gradually the faunal assemblage changed to freshwater species and there was a significant decrease in site use, providing evidence for movement (Minor and Toepel 1986). It has been suggested that the prehistoric estuary became dammed by migrating sand dunes, blocking the outlet and forming the freshwater Tahkentich Lake we see today (Minor and Toepel 1986). We can also see this change in fauna and movement in the archaeological record at the Palmrose and Avenue Q sites (Connolly 1992). At the Umpqua Eden site, marine *and* freshwater shellfish were gathered (Lyman 1991). However, since the faunal assemblage was not accurately cataloged, screened and documented, once again, archaeologists cannot interpret the mobility of the people who lived at the Umpqua Eden site.

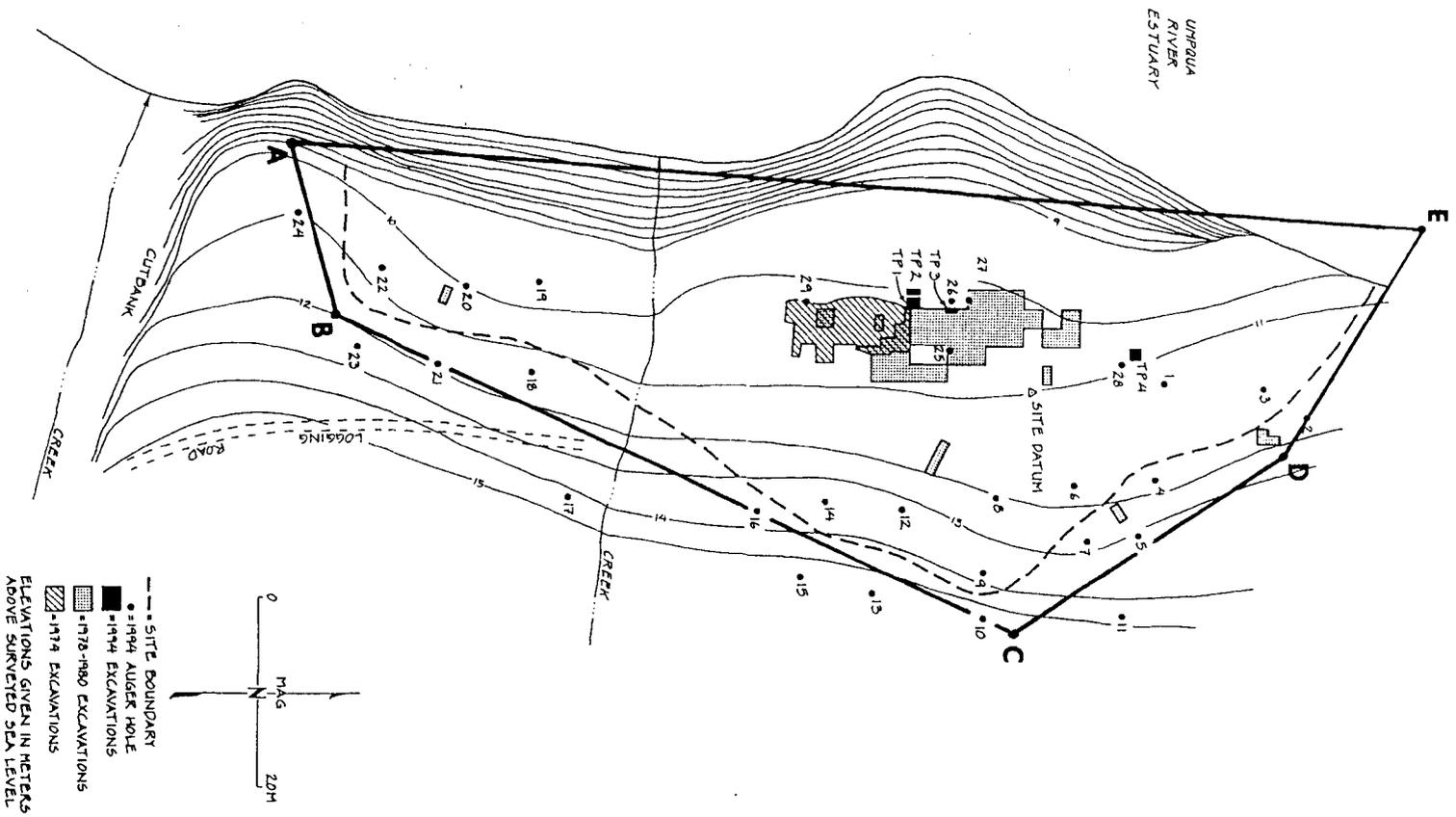


Figure 15. Topographic map of the Umpqua Eden site showing the location of excavation units and site boundaries (SHPO 1994:10).

Kelly suggests that "by deconstructing the concepts of mobility and sedentism, we see the need to construct more useful approaches than simple polarization of mobile vs. sedentary societies....it is no longer useful to speak of a continuum between mobile and sedentary systems, since mobility is not merely variable but multidimensional (Kelly 1992:60)". In addition, Ames (1991:130) suggests that there is "no trend of increasing complexity coupled with increasing sedentism through time; instead the reverse occurred: increased complexity is coupled with increased mobility....there is no simple continuum between nomadism and sedentism."

Given the discrepancies in the cataloging of faunal materials and artifacts at the Umpqua Eden site, I would have to agree with Lyman (1991) that it would be difficult to reveal many details of mobility/sedentism during the past 3,000 years. However, we can see that people did not abandon the Umpqua Eden site due to extreme environmental changes such as sand dunes filling the estuary as seen at the Tahkenitch Landing, Palmrose and Avenue Q sites. What can and will be investigated in this thesis is the Lower Umpqua people who lived at the site, their smoking pipes, and the cultivation of tobacco on the central Oregon coast.

Chapter 4

ENGENDERING THE ARCHAEOLOGICAL RECORD: AN ANALYSIS OF SMOKING PIPES AND TOBACCO CULTIVATION ON THE OREGON COAST

The ethnographic record regarding the Lower Umpqua who once inhabited the Umpqua Eden site, oral histories, and native informants, inform us that men were the producers of virtually all of the artifacts found at the site. Using feminist archaeological theory, my intention is to engender the archaeological record by uncovering possible women and men's activity areas of the site. However, when I first investigated the possibilities of "seeing" women's and men's activity areas through artifact distribution at the Umpqua Eden site, I realized that I needed to give each artifact or artifact category a "gender attribution." Where were the women? I turned my research efforts toward archaeological feminist theory to help me with this investigation and found a methodology that somewhat contradicts my initial efforts, but is more practical and useful in the attempt to bring all prehistoric gender groups to light by way of the archaeological record. Subsequently, I saw the need to choose an artifact type to focus on and decided to analyze the smoking pipes from the Oregon coast, given the lack of research on the subject in past archaeological inquiries. Ethnographic information regarding the use and cultivation of tobacco was also examined to give a clearer picture of precontact Lower Umpqua life.

The Problem with Gender Attribution

When trying to engender archaeology, the question of the methods used to succeed in this goal arises. Gender attribution to artifacts such as tools, features, and ceramics has been a means by which archaeologists have linked the archaeological record with females and/or males. Conkey and Gero suggest that "being able to 'assign' certain activities or material culture to males and/or females is not *the goal*; it is not an end nor is it *the means*....gender attribution is not even a necessary stage in the process whereby we engender the past, although it *is certainly* and inextricably part of the inquiry" (Conkey and Gero 1991:11). They maintain that one can engender the past without gender attributions and that there is much more to understanding gender in prehistory than the attribution of particular activities and materials to men and/or women. In short, archaeology can "*use* gender to *do* more and to *say* more; gender can illustrate the ways in which particular roles and relationships in societies are constructed" (Conkey and Gero 1991:12-13). In turn, gender attribution is more than a methodological issue, it is a conceptual issue, which can be made archaeologically useful.

Because of the nature of the archaeological materials, the specific activities of specific genders are often inaccessible to us (Shennan 1986). A model of gender-as-agency, which puts the individual as an active social agent is thus needed to understand changes in prehistory (Shanks and Tilley 1987). Subsequently, engendering the past becomes more than "seeing" women and men in the archaeological record.

When archaeologists engender the archaeological record, we are writing about people and not just the artifacts that are found at a site. Additionally, by placing gender issues and women at the center of our interpretations of prehistory, a fundamentally new prehistory ensues (Conkey and Gero 1991). If

we concentrate on the "continuities and dialectics of life, the interpersonal and intimate aspects of social settings that bind prehistoric lives into social patterns," we can engender the past (Conkey and Gero 1991:15). Additionally, Conkey and Gero (1991:19) argue that by focusing on "interdependent social relations of production, more adequate explanations of production processes are achieved while at the same time challenging the western (male) notions of radical individualism that typically underlie ideas of production in archaeology."

As mentioned earlier, the artifacts found at the Umpqua Eden have been attributed to men. Therefore, it is my attempt to not only give artifacts found at the Umpqua Eden site gender attributions, but to look at the production processes of the artifacts, specifically smoking pipes and the social implications of dividing labor and the arrangements of tasks by the Lower Umpqua people.

The Umpqua Eden Site and the People Who Lived There

Little is known about the gender roles of the Lower Umpqua people; however, the ethnographic record tells us that certain types of work and activities were reserved for women and others for men. For instance, men concentrated on hunting, fishing, and making eel traps, wood stake fishing weirs (Figure 16), canoes, projectile points and other stone tools, and wood house planks (Figure 17). Women picked berries, dug for camas roots (Figure 18), gathered shellfish and other vegetable foods from the estuary and forest, processed hides, sewed the clothing, made baskets and cooked food (Barnett 1937; Frachtenberg 1909; Harrington 1942).

It is interesting to note that Patty Whereat, (2000, personal communication) the Cultural Resources Director of the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw, had similar interpretations of women

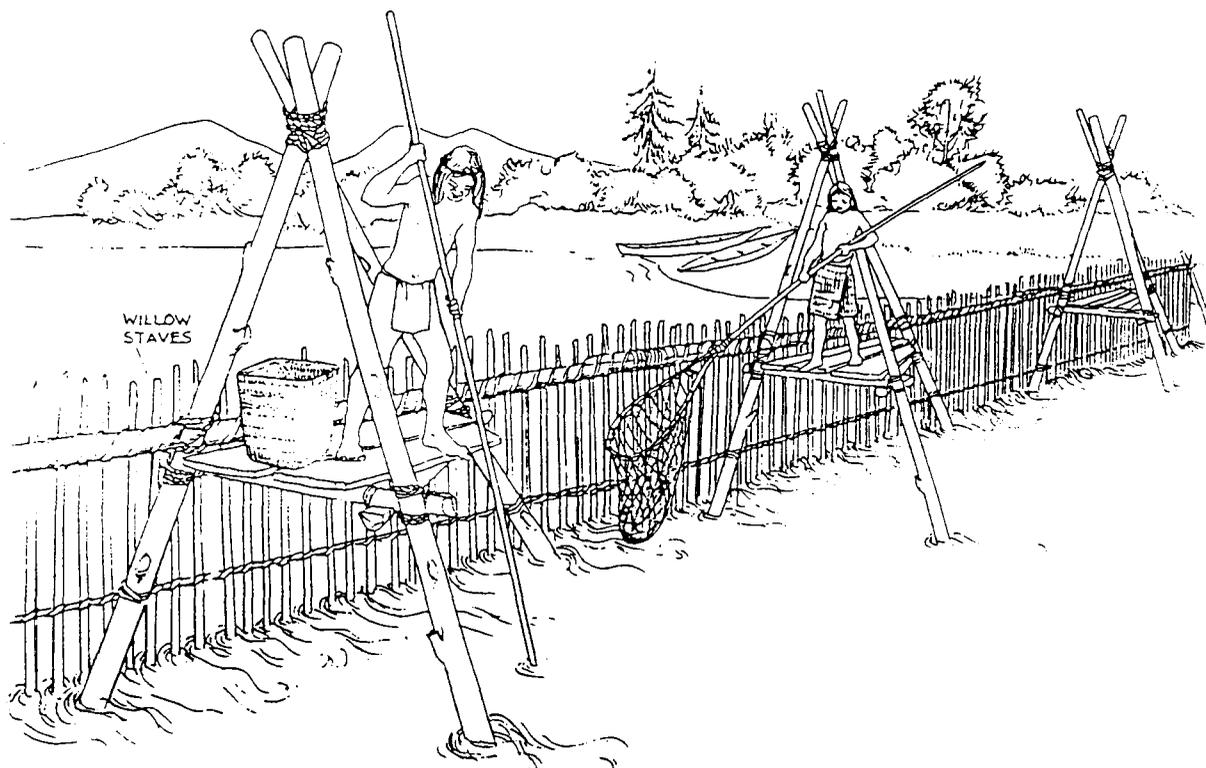
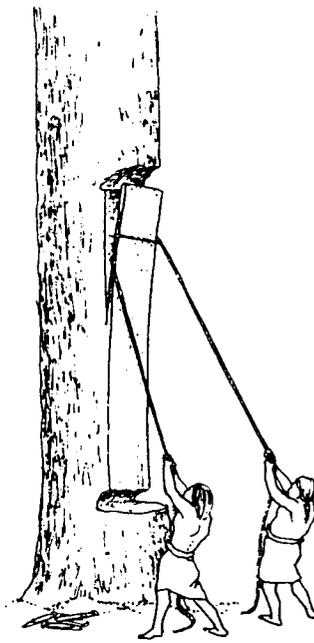


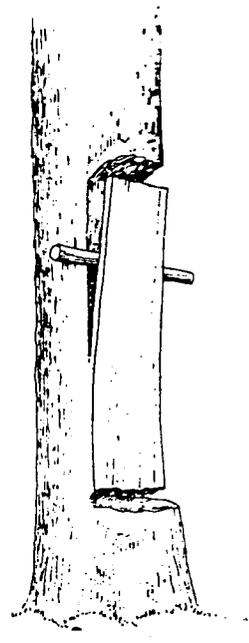
Figure 16. Wood Stake Fishing Weir with Platforms (Steward 1977:104).



CHISELLED CAVITIES IN TREE TRUNK ALLOWED FOR WEDGES TO BE DRIVEN IN AT TOP, PLANK TO COME AWAY AT BASE. KW#34



PULLING ON ROPE HELPED TO SPLIT PLANK AWAY FROM TRUNK. WC * PERS.COMM. RON HAMILTON.



SLOW, BUT ENERGY-SAVING, METHOD OF SPLITTING PLANK: AFTER INITIAL WEDGING, CROSSPIECE WAS INSERTED AND LEFT. WIND AND WEATHER COMPLETED WORK OF SPLITTING OFF PLANK. WC * 59

Figure 17. Splitting Planks from a Standing Tree (Steward 1984:42).



Figure 18. Lyman's Journal (1850) sketch of women digging camas near Elkton, Oregon, approximately 40 miles east of the Umpqua Eden site, Douglas County Museum, #N5282L.

and men's tasks, although she differed on several points. For instance, Patty remembered that Frank Drew (Siuslaw) was told by Old Indian Dan (Lower Umpqua) that when he and his brother were at Loon Lake (located approximately 15 miles inland from the Umpqua Eden site) with the women to gather camas, his brother was attacked by a grizzly bear. Patty believes that some men probably went along with the women to gather, especially on trips when they would be camping away from the main village. In addition, when it was time to fish, especially at fishing weirs or during big fishing jobs, *everyone* helped. Men captured and gutted the fish and built the drying frames. Women would then process and cook the fish. Patty said that Annie Minor Peterson (Coos; Figure 19) talked about her mom fishing in the bay with tule floats which were marked by feathers, indicating whose float was whose.

It was a similar scenario during deer hunting trips; however, not *everyone* was involved (Patty Whereat, personal communication 2000). Usually a small group of men and some women would go off hunting. The men hunted the deer and built the drying frames. Then the women would process the deer at or near where the deer was killed. The processed meat was then wrapped in ferns and taken to the main village. Patty noted that women who hunted were considered to possess a very admirable quality because they were industrious.

In regards to food gathering, Patty noted that women did the majority of gathering of plant foods such as camas, thimble and salmon berries and shoots, and plant material such as bear grass for baskets and iris for cordage. However, Annie (Figure 19) told Jacobs (1934) that women would ask men to gather perfect sized basketry/cordage material during times when the men were away from the village. Other tasks that women would do were to dry berries, cook camas and make camas cakes. In addition, women were the basket makers (Figure 20, 21 & 22). If men saw another man making a basket, they would



Figure 19. Annie Minor Peterson (Coos) wearing traditional dress of cedar bark skirt and strings of dentalia, which were shells harvested from the northern Northwest Coast ocean waters (Moss 1993). *Dentalium* were prized wealth items and were traded widely, especially during the historic period when they served as currency (Moss 1993). Between 1821 and 1846, the Hudson's Bay Company expanded the trade, and dentalia were shipped south to the Columbia and Umpqua rivers and as far north as the Yukon and MacKenzie rivers (Galois and Mackie 1990). Photo in possession of the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw.



Figure 20. Nellie Lane (Coquille), making a basket at the Siletz Reservation, Oregon Historical Society, OrHi 9559.



Figure 21. Native American woman with tumpline around head with basket of wood on back and traditional basket hat, Douglas County Museum, #N6994.



Figure 22. Native American woman with canoe and basket at Newport Bay, ca. 1900, Oregon Historical Society, #OrHi 77351.

laugh and think it was cute. Men could identify medicinal plants and they would gather those particular plants when needed as well as plant material needed to make fish traps. Patty's (Whereat 2000) extensive knowledge of ethnobotany can be seen in her compiled list of 80 different species of plants that have been documented for either food consumption or material for construction of items such as baskets or tools.

In the ethnographic record of the central Oregon coast, there is only one person who mentions yet another gender, a two-spirited person. Spencer Scott (Siuslaw) noted that occasionally there was a man who would dress like a woman. No one ever bothered this person, because it was believed that this person possessed more than one spirit and because they were different, they probably had powers. Patty pointed out that boys would leave on a vision quest, which would assure them of obtaining a spirit. If a boy returned from his vision quest informing the people that he had seen more than one spirit, he was considered to be very powerful. Subsequently, these people were considered doctors. If a doctor wanted to marry a young man, no one would stop the marriage, because people feared the doctor's powers. Females were also doctors who would "draw sickness out" of people who were sick.

Engendering the Past

Biodegradation of Organic Artifacts

The artifacts found at the Umpqua Eden site and the gender roles given by early ethnographers as well as tribal members indicate that most artifacts such as the projectile points, bone harpoons and wedges were primarily made and used by men, with the exception of awls and a digging stick handle (Figure

13). What is significantly important to this picture is the absence of organic materials in the archaeological records at the Umpqua Eden site: baskets, clothing, mats and botanical remains, and all were made and used by women (Patty Whereat personal communication, 2000). I did find one type of artifact which was possibly used by both women and men. When I first analyzed a particular groundstone artifact (Figure 10 & 11), I had thought that they were pestles for grinding food such as camas and used by women. However, a more detailed analysis has revealed wear marks on two sides of the artifacts. These artifacts have been pecked and ground to an unfamiliar shape according to Coos tribal member David Brainard (personal communication, 1999) and they possibly could have had a dual use: 1) a pestle and 2) a wood stake weir hammer. Therefore, women and men at the Umpqua Eden site may have shared these tools and possibly others.

Women's Voices

To include women in the interpretation of the archaeological record at the Umpqua Eden site, I have chosen statements given to early ethnographers by native women of the Confederated Tribes Coos, Lower Umpqua and Siuslaw.

Daisy Wasson Coddling, a Coos/Upper Coquille woman who grew up on the South Slough in the early 1900's, gives a description of preparing spruce roots for basketry:

The spruce roots were carefully dug, usually with the bare hands in order to get them as long as possible and unbroken. After they were gathered they were buried in hot sand until the outside cracked and dried, so it could be peeled off. Then the roots were split to the desired size, either with the teeth or the thumb nail (Maple n.d.:3).

Louisa Smith, a Lower Umpqua woman, described in 1909 the subsistence activities (possibly of women):

Whenever they lived near the mouth of the river, in the bay, they had lots of food. They had dried salmon, and likewise fern-roots, which they ate during the winter. They ate fern-roots. Thus the people did during the winter. Tidewater-weeds likewise they ate in the winter-time; also kinnikinnick berries were eaten. Such was the food of the people belonging to the past (Frachtenberg 1914:81-2).

Ethnographers John P. Harrington and Melville Jacobs gathered numerous statements from the Coos, Lower Umpqua, and Siuslaw in the 1930s. They spoke to two Coos women, Lottie Evanoff and Annie Miner Peterson. The following is what I can only assume is Lottie's information about her experience as a woman. Lottie explained that the Coos used the tule mats for seats in their dugout canoes, as floor coverings in their lodges, and as wall-linings to keep out the cold wind drafts or rain (Harrington 1942). The Siuslaw women made twined tule sacks, tule storage baskets, and both twined and sewn tule mats (Barnett 1937:172). In addition, Harrington (1942) tells us that the women smoked vast amounts of elk and deer for winter food.

As we can see, women were closely associated with the biodegradable tools used before Euro-American contact. Unless an archaeological site is a "wet" site or a cave site, where organic materials may be preserved, women's basketry tools are absent from the archaeological record.

Smoking Pipes of the Oregon Coast: A Comparative Analysis

Of particular importance to this thesis are the smoking pipes (Figures 23 a & b; Table 4) and their relevance to engendering the archaeological record at



Figure 23a. Umpqua Eden sandstone (bottom left), clay and steatite (top left) pipes and concretion beads.

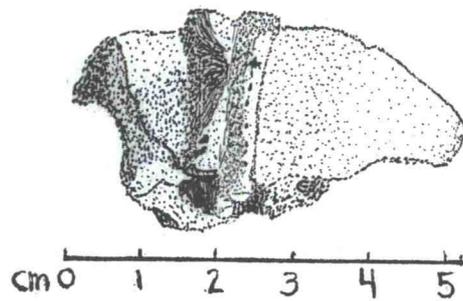
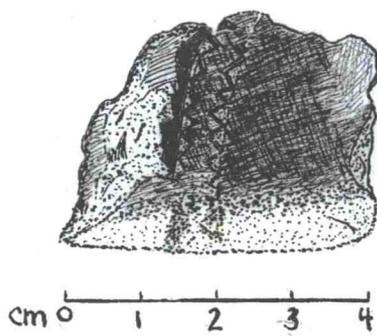


Figure 23b. Umpqua Eden fired clay pipe fragments.

	Catalog #	Dates	Material	Length	Thickness of mouth piece	Thickness of bowl end	Internal circumference of mouth piece	Internal circumference of bowl end	Temper	Firing Temperature	Description and Comments
Umpqua Eden Site (35DO83)											
complete pipe	N102 E94 8-17	1970±40BP	sandstone	65.6	11.8	3.3	7.5	17.5			biconically drilled; tan exterior color
complete pipe	none	?	clay	67.1	5.3	7.1	11.3	17	sand	high	secondary firing
pipe fragment	N88 E92 0-5	240±40BP	clay	36.2		8.9			sand	low/reducing atmosphere	incised zig zag design; fire cloud markings; dark orange exterior color
pipe fragment	N104 E94 2-129	"	clay	51.5		7.3			sand	low/reducing atmosphere	incised cross hatching; opposite of mouth piece end; circularly incised; orange/tan exterior color
pipe fragment	N102 E94 3-1	"	clay	48.3		11.4			sand	low/reducing atmosphere	incised zig zag design; raised double band around pipe; fire cloud markings; very thick
pipe fragment	none	?	clay	21.6			6.9		sand/clay	low/reducing atmosphere	incised dotted and zig zag design; possibly used crushed ceramic particles for temper
pipe fragment	N104 E92 5-23	"	schist	24.1	1			11.2			possibly broken at time of construction; rough surface
pipe fragment	TP D 4-1	"	schist	104	2.2		6.2	14			shined finished surface
pipe fragment	N94 E98 2-362	"	schist	29	2.2	3.3	8.6				possibly broke during construction of pipe; rough surface
Cape Perpetua Site (35LNC56)											
pipe fragment	A-502	1350±70BC	clay						little sand	low/reducing atmosphere	displayed at the Uof O Museum; unable to fully analyze; red paint or ochre applied to exterior
Charleston Rockshelter (35CS??)											
pipe fragment	372/31286	?	clay	77.2	6.2	7.6	12.4	18.2	sand	low/reducing atmosphere	shouldered pipe; same orange/tan exterior color as Macey Site pipes; smooth surface
Lone Ranch Site (35CU35)											
complete pipe		?	clay	43.5	7.5	5.5	10	15.4	sand	low/reducing atmosphere	red/orange exterior; unable to analyze cross section
pipe fragment	833/C-557	"	clay	49	5.6	3.8	10.6	12	sand	low/reducing atmosphere	exterior striations and uneven surface
pipe fragment	C-558	"	clay	27.1	3.8	5	10.2	3.1	sand	low/reducing atmosphere	red/orange exterior
pipe fragment	C-218	"	clay	44.3	3.6	6.8	6	6	sand	low/reducing atmosphere	tan exterior
pipe fragment	C-221	"	clay	61.8	4.3	3.2	5.3	12.7	little sand	low/reducing atmosphere	exterior striations and uneven surface; orange/tan exterior color
pipe fragment	C-197	"	clay	45.5	2.6	4.6	6.5	6.5	sand	low/reducing atmosphere	uneven surface; orange/tan exterior color
pipe fragment	C-245	"	clay	28.2	4.9	2.5	6.4	10.4	sand	not fired	exterior striations; orange/tan exterior color
pipe fragment	C-215	"	clay	22.7					sand	low/reducing atmosphere	exterior orange/brown color
pipe fragment	C-326	"	steatite	116.2	2.2	3.3	8.6	18.3	sand		shined and smooth exterior; completely different material than other pipes
Schwenn Site (35CU??)											
pipe fragment	1-9688	?	sandstone								very smooth red exterior
Macey Site (35DO??)											
pipe fragment	A-1	?	clay	41.2	6.4				sand	very low; sun baked	orange exterior color
pipe fragment	A-2	"	clay		8	3.3		29.1	sand/shell	very low; sun baked	orange exterior color
pipe fragment	A-3	"	clay	58.4	6	1.8	1.7	20	sand/shell	low/reducing atmosphere	orange exterior color
pipe fragment	A-4	"	clay	110	4	4	18.5	33.4	sand	very low; sun baked	tan exterior color; shouldered
pipe fragment	A-5	"	clay	20.3	5.1	4.4	7.2	11.9	sand	very low; sun baked	orange/tan exterior color; incised zig zag design; bark inside, remnants of construction process
pipe fragment	A-6	"	clay	59.6	7.5	2.4			none	very low; sun baked	orange/tan exterior color; unable to completely analyze, pipe filled with soil
pipe fragment	A-7	"	clay	62.4	8.4	2.8	14.6	22.6	none	very low; sun baked	orange/tan exterior color-unable to completely analyze, pipe fill with soil
Tahkentich Landing Site (35DO130)											
possible pipe fragment		4340±80BP	steatite	38.1	8.9	2.8					no residue; exterior wear pattern; not a completely round piece; incised with circles and hash marks
possible pipe fragment	548-N-7/2A-1	"	steatite	38.8							no residue; no drill marks; same motif as above fragment, however, found in different quad
pipe fragment	548-L-6/2B-1	3120±80BP	sandstone	24.2		5.6					red ochre applied to exterior
possible pipe fragment	548-Q-18/2B-1	"	sandstone	20.7		6.4					residue, probably a pipe fragment

Table 4. Smoking Pipes Analysis

the Umpqua Eden site. Patty Whereat (personal communication, 2000) noted that in general, men smoked the pipes and there was not that much specific information regarding Lower Umpqua use of smoking pipes or their sources of clay to make the pipes. She thought that if women did not smoke pipes, it is unlikely that they gathered the clay for the pipes. However, everyone used clay. For example, red clay was used as sun and wind protection for a person's face and it was also used to paint arrow shafts and canoes (Patty Whereat personal communication, 2000).

For this study, I looked at the distribution of pipes in Oregon, did a comparison of pipes ($n=32$) found on the Oregon coast, and compiled information from native informants during the ethnographic period on the use of pipes and tobacco.

Using microscopic analysis, I looked at four specific elements of all of the smoking pipes: 1)material used; 2)firing temperature; 3)temper; and 4)construction of the pipes such as exterior applications or artistic motifs. In addition, I took measurements of the length, the circumference of each end of the pipes or fragments and the thickness of each end of the pipes (Table 4).

Oregon coast smoking pipes are usually straight-sided tubular pipes made from clay and stone (Endzweig 1989). The majority of pipes from Oregon are found on the Oregon coast (Endzweig 1989; Figure 24). Of all of the artifacts found at the Umpqua Eden site, the sandstone, clay and stone pipes and pipe fragments have the most artistic motifs and are beautifully hand-crafted (Figure 23 a & b). The majority of the pipes and pipe fragments found at the Umpqua Eden site are made of clay. Two pipes are made of stone and the oldest is made of sandstone (Figure 23 a & b).

Previous analyses of the clay pipes from the Umpqua Eden site suggest that the majority of the pipes were "sun baked," (Ross and Snyder 1986).

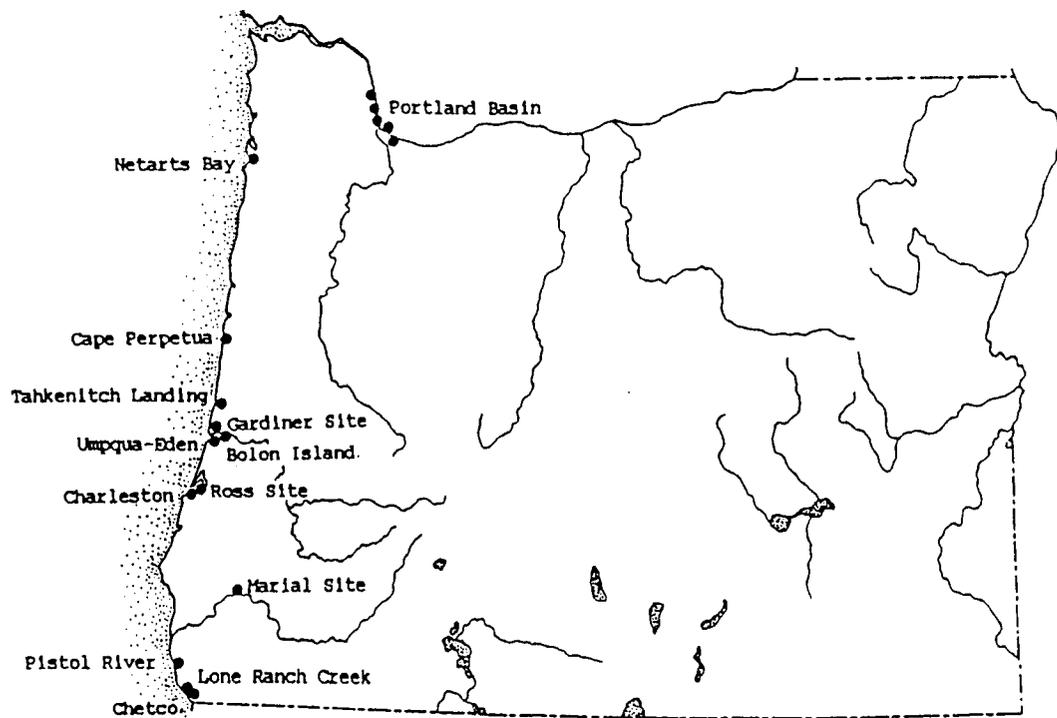


Figure 24. Archaeological Occurrences of Clay Pipes in Oregon (Endzweig 1989:160).

However, using microscopic analysis, I found that all of the clay pipes were fired in a low temperature reducing atmosphere. Two of the pipes had "fire cloud" markings, which are indicative of an open firing atmosphere (Table 4). The oldest pipe was found in the stratum which has a date of approximately 2,000 years ago, is made of sandstone and has been drilled biconically. If the tradition of smoking pipes began at this time among the Lower Umpqua, it is possible that the sandstone pipe could have been replaced by the clay pipe.

The stone pipes are associated with Zone V, dating to approximately 200 years ago (Figure 23a). Previous analysis noted that these particular pipes are steatite (Ross and Snyder 1986), but microscopic analysis indicates that they are schist. Among the artifacts found at the Umpqua Eden site is a schist adze. The schist used to make the pipes appears to have come from the same schist quarry source. A Coos woman, Annie Minor Peterson, told an ethnographer that "a mile or two south of Bandon, Oregon, stone was gotten; the objects were shaped in it; they made pipes, dishes with designs marked first before heating" (Jacobs 1939). The stone possibly came from a well known schist source at the mouth of the Coquille River called Tupper Rock (Leatherman and Krieger 1940; Figure 1). Subsequently, the schist pipes could have been traded into the Umpqua Eden site. On two of the schist pipe fragments there was a notable roughness to the exterior (Table 4). It is possible that these particular artifacts are actually parts of a pipe bowl, which was inserted into the end of a tubular wood pipe. Tubular wood pipes with stone bowls have been associated with Northwestern Californian groups such as the Karuk (Harrington 1932), an upriver tribe from the mouth of the Klamath River where the Yurok people resided before Euro-American contact.

A comparison of the clay pipes from the Umpqua Eden site, the Cape Perpetua site (Minor *et al.* 1985), Lone Ranch site (Berreman 1944), the

Schwenn site (Leatherman and Kreiger 1940), the Macey site (Byram and Sobel 1997), the Tahkentich Landing site (Minor and Toepel 1986) and one pipe from the Charleston Rockshelter donated to the University of Oregon Museum of Natural History reveals relatively similar shapes (Table 4). The mouth piece is usually thicker and the bowl end is thinner (Figure 25; Table 4). What is most notable are the artistic motifs of the Umpqua Eden clay pipes (Table 4). Only one other pipe, which was found at the Macey site, has an incised design (Table 4). All of the other pipes look quite simple and utilitarian.

An analysis of a shouldered clay pipe (Figure 26) from Cape Perpetua revealed that the pipe had been completely covered with an application of red ochre. Minor *et al.* (1985) notes that red ochre is available at Cape Perpetua, and there was a small boulder recovered from this site that was also stained with red ochre. This pipe is only one of two pipes from the Oregon coast which possesses a red ochre application.

The Cape Perpetua shouldered pipe was shaped similarly to the Macey site pipes (Figure 25; Table 4). Nine percent of the pipes analyzed are shouldered ($n=3$). However, the Macey site pipes look very utilitarian (Table 4). They have been manufactured in a manner similar to the Cape Perpetua pipe; however, the Macey site pipes do not look as if they have been fired. Of all the pipes, the Macey site pipes have the largest internal circumference at the bowl end and look very similar to the Charleston Rock Shelter pipe. In Byram and Sobel's (1997) discussion of the Macey site, they suggest that this particular site is a "fishing station," as the only surface artifacts found other than the pipes were net weights. Perhaps smoking pipes is associated with fishing on the Umpqua River during prehistory.

The pipe assemblage from the Lone Ranch site is very similar and includes tubular clay pipes with the exception of a steatite pipe (Table 4).



Figure 25. Macey site pipes, showing thickness of mouthpiece versus bowl end.

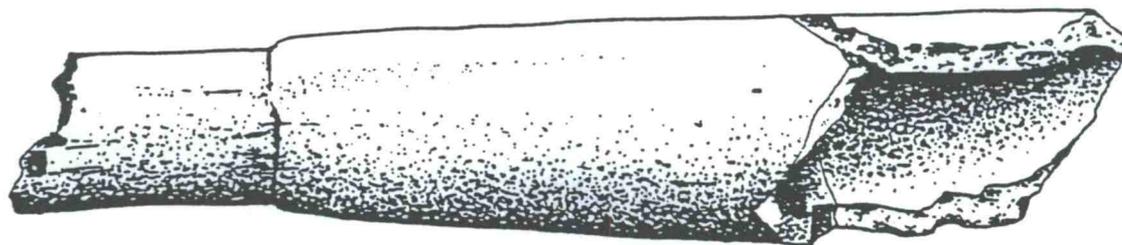


Figure 26. Clay pipe fragment from the Cape Perpetua site (Minor *et al.* 1985:39).

These particular clay pipes look like they have been manufactured differently than the other clay pipes from the Oregon coast, as they possess an uneven appearance with striation marks along the length of the pipes. The steatite pipe is the longest of all of the analyzed pipes and is probably the only true steatite pipe (Table 4).

The Schwenn site pipe fragment is made of red sandstone and has been finely smoothed. Unfortunately, I was unable to fully analyze this fragment because I could not verify the mouth piece versus the bowl end as the pipe is too fragmentary.

In Minor and Toepel's (1986) analysis of the artifacts found at the Tahkenitch Landing site, they concluded that four artifacts were pipe fragments. However, in my analysis, I found that the two steatite fragments (Figure 27) were probably not pipe fragments, as there is no residue found in the interior of the fragments, each has obvious wear patterns on the exterior, and they are not completely round. These two fragments may possibly be steatite beads as seen on the southern California coast with the Chumash people (Miles 1963; Figure 28). Two sandstone pipe fragments were associated with the upper levels of the 3,000-5,200 BP component of the site and one revealed red ochre staining. The Umpqua Eden site sandstone pipe also dates to approximately 2,000 years ago.

Of the 32 pipes or pipe fragments from the Oregon coast included in this study, all of the pipes are of a straight tubular shape with three pipes shouldered. A wide range of artistic motifs and manufacturing styles was present, given the relatively small geographic location of the Oregon coast. The majority of the pipes are made of a low fired clay with sand temper and the oldest pipes were made from carved sandstone.

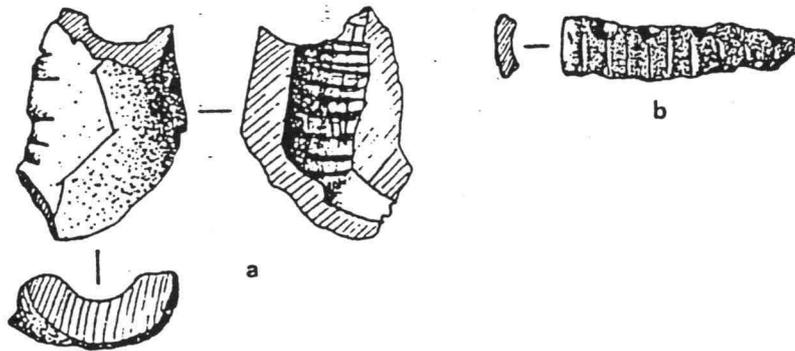


Figure 27. Tahkenitch Landing site steatite fragments (Minor and Toepel 1986:87).

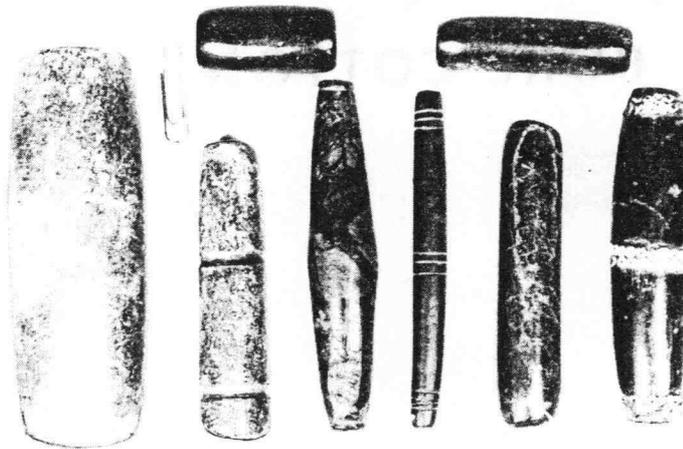


Figure 28. Large steatite beads from the southern Californian Chumash (Miles 1963:136).

Concretion Beads

In previous analyses of the beads and figurines found at the Umpqua Eden site (Ross and Snyder 1986; Endzweig 1989; Figure 23a), it was suggested that the beads and figurines were made of clay. I include these artifacts here because microscopic analysis revealed that these particular artifacts are actually worked concretions with a natural central hole for stringing. It is possible that the concretions occur where prehistoric marsh or estuary rhizomes died and iron leached out of the soil, attaching to the dead root. These concretions may have been found near the site. This is the first occurrence of worked concretion beads from the archaeological record in this area.

The Small Living Surfaces and the Sandstone Pipe

As mentioned earlier, a sandstone pipe was found at the Umpqua Eden site in relation to the small living surfaces (Figure 23a). My attempt is to interpret and engender these particular findings. Mary Ann Larson (1991) gives us an excellent example of cautionary archaeological interpretation of not using "common knowledge" information from the androcentric ethnographic record. Larson (1991) tells us that the house floor found at the Choris house site in Onion Portage, Alaska has been interpreted as a *Kazigi*, a men's workshop. However, she has found that there are actually three different generalized functions, which include both women and men. Larson (1991) concludes that if the *Kazigi* has always been associated with men's work through "common knowledge," there would seem to be a rigid division of labor by gender because of the implications of separate women and men activity or work areas. In turn, the division of labor by gender may not have been as rigid as interpreted in the past.

Another male ethnographer, H.G. Barnett (1937), compiled lists of Coos, Lower Umpqua and Siuslaw material culture. The description of the small living surfaces match two from his list: 1) mat or brush sweat house for women or 2) men's communal sweat house. The surfaces at the Umpqua Eden site have been interpreted in the past as a seasonally used living surfaces (Ross and Snyder 1986) however, they are found in relation to the sandstone pipe. Ethnographic information from Annie Miner Peterson (Coos) and others tell us that as a general rule, only men and women "doctors" were allowed to smoke. Coos women all insisted that they had never seen any Coos, Lower Umpqua or Siuslaw woman smoke, not even a doctor, although they did among the Alsea and Coquilles (Jacobs 1934; Harrington 1942; Swadesh 1953). Subsequently, the small living surfaces and the sandstone pipe may have been only for the use of men. It should be noted that these surfaces have a radiocarbon date of 3,000 years ago and extrapolating the ethnographic record back that far may not be accurate. Additionally, if we consider Larson's (1991) notion about "common knowledge," the idea of women smoking in their own sweat house is not out of the question.

An article titled, *Who Made the Pipes?* (Woolfrey *et al.* 1976), got me thinking about the pipes from the Umpqua Eden site. We have no information on the construction process of these pipes or who made them. Wright (1991:106) suggests that, to engender prehistoric potting, in this case, making pipes, a broader definition of a potter is needed, as is a better understanding of the process of making ceramic items. Wright (1991:106) argues that "necessary production sequences, such as obtaining clay, processing it, forming pots [pipes], decorating pots [pipes], firing them, and so forth, need not be done by the same person, but all have contributed to the final product". If we look at the entire process of making clay pipes, we will see people initially gathering

the raw material, clay. And who were the gatherers? Most likely, women (Patty Whereat personal communication, 2000). In an attempt to not use "common knowledge," I suggest that if women collected the clay and possibly made the pipes, they may have smoked them.

Tobacco Cultivation and Uses

Much of what will be discussed in this section is an interpretation of the ethnographic record on tobacco cultivation and use by Patty Whereat, Cultural Resources Director for the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw. In addition, for information on the cultivation of tobacco, I turned to Harrington's (1932) extensive coverage of the subject with the Karuk Native Americans of Northwestern California, who are considered part of the Northwest Coast Culture area.

The cultivation of tobacco among Native Americans on the Oregon coast was first observed by Jedediah Smith in 1828 with the Chetco people. He stated that "near my camp was a village of 10 to 12 lodges but the indians had all ran off. Among the indians of this country I have seen a small kind of Tobacco which is pretty generally cultivated (Peterson and Powers 1977:12)."

In 1873, A. W. Chase conducted one of the earliest archaeological expeditions on the Chetco River. During this expedition, he found tobacco plants growing at Chetco archaeological sites and he noted:

A plant of this weed was found growing in Miller's garden on the shell mound. It resembles the ordinary Virginia weed but the leaf is smaller....I obtained the botanical name, upon the authority of Prof. Asa Gray. It is the *Nicotiana quadrivalvis*, a native of Oregon and Washington Territory and confined to that region. It is highly narcotic in its properties. Miller says that on his arrival in 1850, he found the Indians using it, and

that it was the only plant or herb that they cultivated. It was found growing on shell mounds. When used the leaves are parched, then crushed in the hands and stuffed in the largest end of the pipe. The leaves of the mansinita [kinnik-kinnik] were also used to mix with the tobacco, and were prepared in the same manner (Chase 1873:34-35).

Annie Minor Peterson (Coos) gives us a description of the tobacco cultivation and replanting on the central Oregon coast:

The Indians used to raise tobacco (tall, with long flat leaves, tiny white blossom, grew 2 ft. high, there used to be lots at Scottsburg [approximately 20 miles east of the Umpqua Eden site] on the Umpqua [River] where they'd grow wild). They say they used to plant them above Rocky Pt. on e. side of Coos Bay....They took the leaves, dried them, crushed and put them in buckskin bags....They left [tobacco] stems stand in order to let the seeds dry, then they saved and planted them, or got those that grew wild sometimes (Jacobs 1934:101-118).

A botanical analysis of a variety of tobacco (*Nicotiana*) species found on the west coast of North America reveals that *Nicotiana bigelovii* var. *mutlivalvis*, which is found specifically on the Umpqua River, is a variation of *Nicotiana bigelovii* var. *quadrivalvis*, the species that was noted by Chase (1873) on the Chetco River (Goodspeed 1954; Figure 29). Botanists have noted that *Nicotiana bigelovii* var. *multivalis* occurs when *Nicotiana bigelovii* var. *quadrivalvis* has been cultivated for a substantial length of time and undergoes a mutation (Goodspeed 1954; Alex Atkins personal communication, 2000).

Among the Lower Umpqua, Coos, and Coquille native informants said that tobacco seeds were scattered in burned-over areas, and brush fences were erected around the plot to keep the plants out of the wind (Harrington 1942; Jacobs 1934). Lottie Evanoff (Coos) and Spencer Scott (Lower Umpqua) told

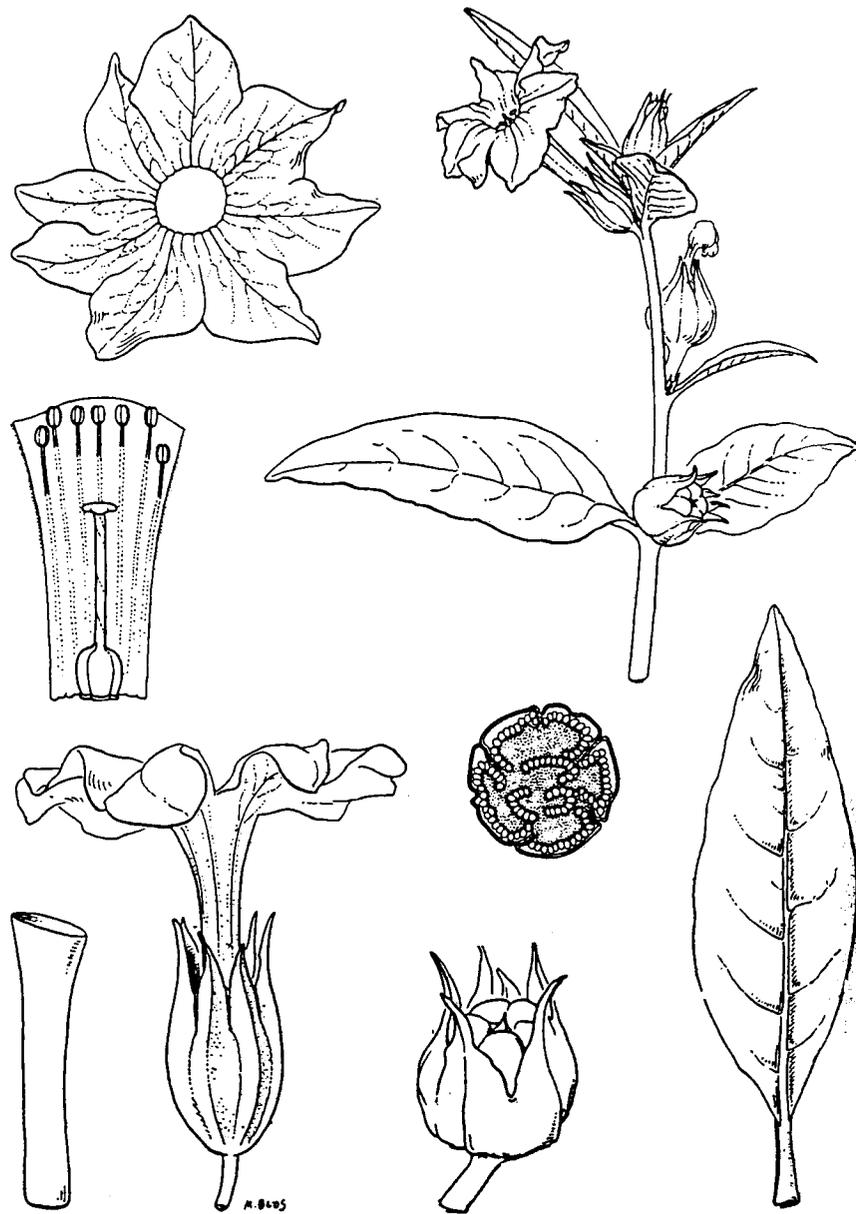


Figure 29. Tobacco found on the Umpqua River (*Nicotiana bigelovii* var. *multivalvis*) (Goodspeed 1954:450).

Harrington (1942) that the people put fences around the plants because they thought that the flavor of the tobacco was much improved if the tobacco leaves were protected from the wind. In addition, Bill Metcalf (Chetco/Joshua) said that he saw tribes on the Klamath and Rogue Rivers use salmon bones and sand to fertilize their crop (Barnett 1934). Among the Karuk in Northwestern California on the Klamath River, Harrington (1932) noted:

The only thing that they did not do was to work the ground. They thought the ashy earth is good enough.

But they knew indeed that where they dig cacomites all the time, with their digging sticks many of them grow up, the following year where they dig them. They claim that by digging Indian potatoes, more grow up the next year again. There are tiny ones growing under the ground, close to the Indian potatoes.

They also knew that it was good to drag a bush around on top after sowing.

And they also knew that it is good to pull out the weeds. Root and all they pull them out, so they will not grow up again, and by doing this the ground is made softer (Harrington 1932:73).

Due to the fact that tobacco is not cultivated for food consumption, anthropologists suggest that native peoples from the Northwest were not agriculturalists (Boyd 1999). However, I would suggest that the descriptions provided here are indicative of a form of agriculture.

Much Needed Botanical Analysis

No soil samples were taken at the Umpqua Eden site for botanical analysis to determine if they were cultivating tobacco or processing foods such as camas. Many feminist archaeologists suggest that this is because female labor is devalued (Conkey and Gero 1991; Klein and Ackerman 1995). Conkey

and Gero (1991) tell us that the entire field of paleoethnobotany has been neglected in archaeological practice and interpretation because seed recovery, related to food preparation and the "domestic" sphere, is identified with woman's work.

Additionally, it has been suggested that if we could find pollen in archaeological sites, we would have women in archaeological studies (Isaac 1978). However, using pollen analysis to document the role of women is a methodological diversion away from the more fundamental and unquestioned assumption that there is a specific division of labor (man-the-hunter/woman-the-gatherer) that is then taken as an *essential* feature of human social life (Conkey and Spector 1984). Subsequently, we should be cautious of assumptions about the division of labor among people in prehistory. It would probably be more useful to speak to people such as the Confederated Tribes as well as looking at the ethnographic record to address the division of labor. Nevertheless, it is my hope that in the future both botanical/pollen analysis and gender become standard categories in archaeological site reports.

Discussion

By using the methodological approach of gender attribution, I was not able to uncover women's and men's activity areas at the Umpqua Eden site because women's contribution and production were virtually invisible due to the fact that their organic tools biodegraded. However, there is the notion that the extensive shell middens are ethnographically indicative of women's subsistence activities because they did the shellfishing and the cooking.

By studying gender we can hypothesize how particular roles of women and men, gathering, hunting was complementary given the environment of the

Umpqua Eden site. Women and men probably used each others tools, such as the pestle/wood stake weir hammer, and the division of labor may not have been extremely rigid. It appears that both women and men contributed extensively to the well-being of the group at the Umpqua Eden site.

Chapter 5

DISCUSSION

In past archaeological inquiry regarding the Umpqua Eden site, it was discovered that there was continuous use of the site from 3,000 years ago to Euro-American contact. In addition, it was suggested that this site was indicative of a hunting, fishing, and collecting camp used on a seasonal basis as part of a seasonal round (Ross and Snyder 1986). The Umpqua River and the Rogue River are the only two rivers that cut through the Coast Range on the Oregon coast, as the others flow out of the Coast Range at this point in history. I suggest that the mouth of the Umpqua River may not have undergone the dramatic changes that can be seen in the archaeological record at the Tahkenitch Landing (Minor and Toepel 1986) and Palmrose and Avenue Q sites (Connolly 1992), which were altered due to sand dunes invading the highly productive estuary environment and which led to people abandoning these sites (Figure 1). The Umpqua River is a very large river relative to the other rivers of the Oregon coast and sand dune migration probably could not have dammed the mouth of the river. Therefore, I suggest that the Umpqua Eden site's continuous occupation for 3,000 years is not surprising.

Fladmark (1986) suggested that in the Early Developmental Stage (5,500-3500 BP) there was sea level stabilization, which would provide rich salmon runs, and that intertidal ecosystems such as estuaries were maturing. In turn, he argues that we see more sedentism and artistic motifs. During the Middle Developmental Stage (3,500-1,500 BP) personal ornamentation and sculpture in stone, bone, antler and wood fully developed and coincides with status and wealth that is characteristic of the historic Northwest Coast cultures

(Fladmark 1986). The Late Developmental stage dates from 1,500 BP to Euro-American contact and is characteristic of historic native groups, such as the Lower Umpqua. We can see similarities in the eye motif of the digging stick handle at the Palmrose site (Figure 30), which is seen in historic northern Northwest Coast cultures, and in the geometric designs of the clay pipes found at the Umpqua Eden site (Figure 23b), as seen in the historic southern Northwest Coast culture's basketry (Patty Whereat personal communication, 2000). The Umpqua Eden site was occupied during the Middle and Late Developmental stages. It is possible that the Umpqua River and its estuary stabilized around 3,000 years ago and that this is why we see people first settling at the Umpqua Eden site at this time. However, the central Oregon coast has a very dynamic environment with tremendous coastal erosion, sand dune migration and sea level rise. I believe that the central Oregon coast archaeological record is very biased due to these changes in the environment. Subsequently, many older archaeological sites probably sit at the bottom of what we know today as the Pacific Ocean. This is possibly one of the reasons why the wood plank house floor features are not seen until late in the archaeological record on the Oregon coast.

The first documented evidence of wood plank houses on the south side of the mouth of the Umpqua River (Figure 31), probably in the same area as the Umpqua Eden site, come from Captain Albert Lyman's journal (November 18, 1851):

Am stopping now with Mr. Mann at Umpqua City. Yesterday went over with him to his turnip garden on the other side of the river. Saw a number to old Indian cellars there. There are a great many marks of indian houses and graves in all parts showing that the Indians must formerly

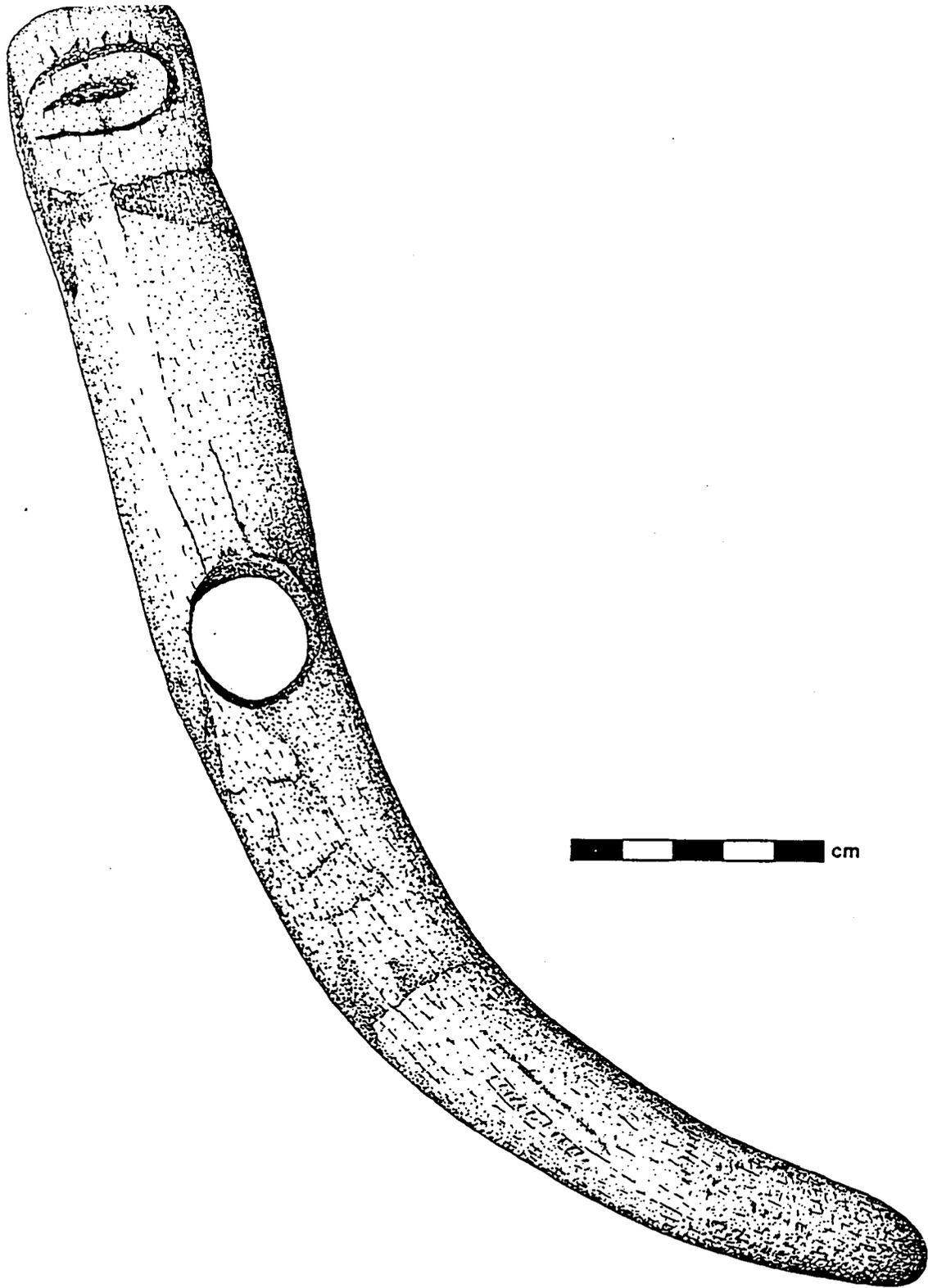


Figure 30. Digging stick handle with classic Northwest Coast eye motif from the Palmrose site (Connolly 1992:98).

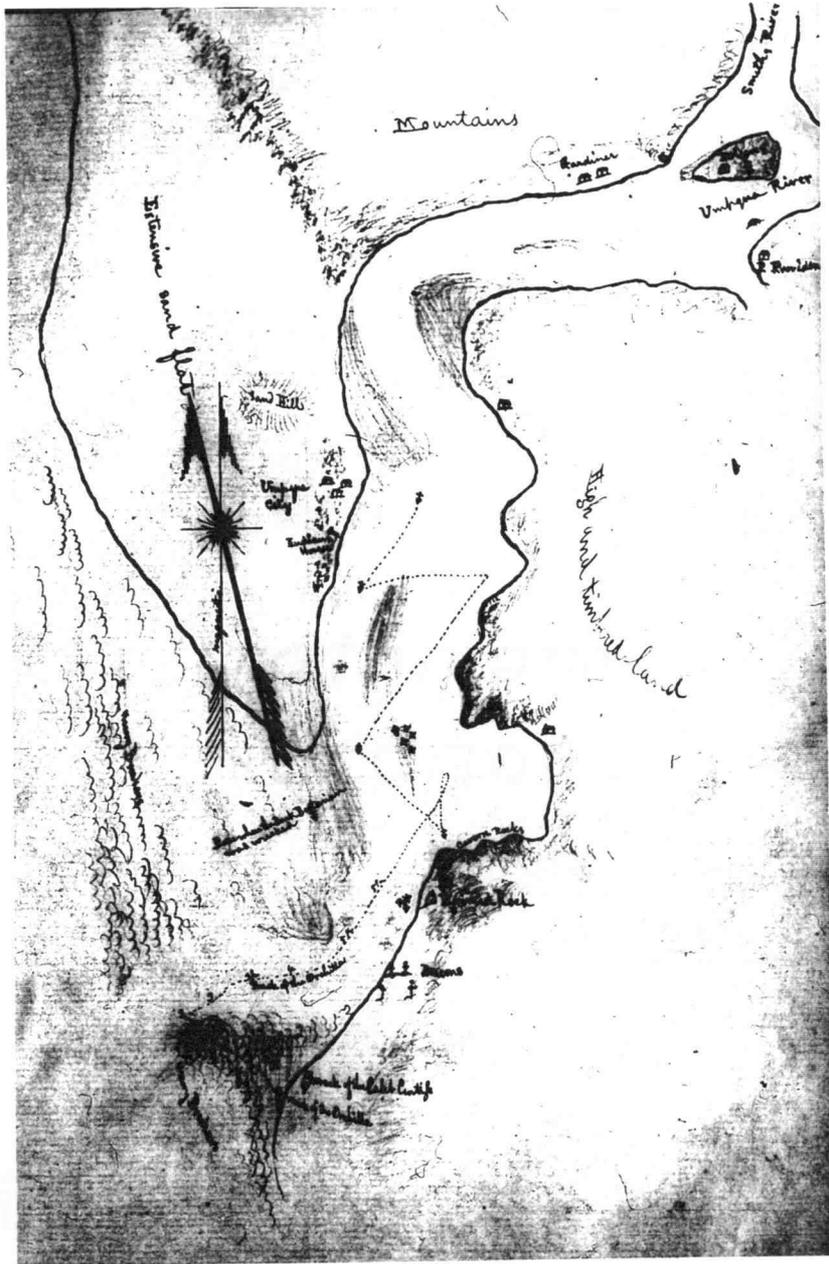


Figure 31. Lyman's Journal (1850) sketch of the mouth of the Umpqua River, Douglas County Museum, #N5282Q.

have been much more numerous than at the present time (Lyman 1851).

Now, 150 years later, we can see no evidence of wood plank house depressions at the mouth of the Umpqua River, probably because of coastal erosion and sea level rise.

Patty Whereat (personal communication, 2000) noted that the *main village* was closer to the mouth of a river and that this was considered a place where most people would reside during the winter. In addition, Patty noted that in the spring and fall when people were gathering food such as camas or hunting and fishing, the *permanent winter village* was not completely abandoned, as the elderly and children stayed behind in the lower villages.

The following is a description by Patty regarding who actually lived in the wood plank houses. The chief and people with higher social standing lived in the wood plank house. The Lower Umpqua had a stratified society: 1) a male chief and the chief's assistants and family; 2) the upper class; 3) the middle class; 4) the poor people; and 5) the slaves (Patty Whereat personal communication, 2000). There was some possibility to change class, but she is not sure how often people really changed class and people were very suspicious of others who wanted to move up in the hierarchy of classes. However, regardless of class, everyone was fed (Patty Whereat personal communication, 2000). People who were too old or sick were always taken care of by others in the tribe. Patty did say that poorer people worried about rich men wanting to marry their daughters. The poorer families had anxiety about this situation because it was traditional for the two families to give each other gifts throughout the couple's marriage and the poor family was afraid they would not have enough to give. Additionally, because the rich men could have more than one wife, the poorer wife would be harassed by the other wives because she was

from a lower socioeconomic class. Patty also noted that people had to marry outside their village, because a village was usually made up of one's family. Since it was the chief and people of higher social standing who lived in the houses, a chief or a husband's wife or wives and their children had a specific area within the house. The more wealth one had, the bigger the house. Farther south in Yurok country, the men slept in the sweat houses and never in the living quarters. However, Patty doesn't believe that Coos, Lower Umpqua and Siuslaw cultures were as rigid and separating of the women and men as the northern California tribes. As for the construction of the houses, Patty noted that when a wood plank house was built, *everyone* worked on the project. Men would make the planks and women would excavate the soil for their semi-subterranean house. As mentioned earlier, *everyone* also worked on the big fishing jobs. In turn, I would have to agree with Conkey and Gero's (1991) argument that focusing on interdependent social relations of production challenges the Western notions of radical individualism that typically underlie ideas of production in archaeology.

As mentioned earlier, I was unable to find evidence of women's and men's activity areas using gender attribution for the artifacts. Patty believes that women and men probably shared stone tools such as knives or scrapers, however; she did not think women and men would need to share a tool that was specific to a trade, such as an awl used in making baskets. People who were specialists at a specific trade made their own tools. There was not a taboo in place for which gender used which tool, but which tool was used on which animal was most important. For example, a mussel shell knife was used when processing eel. Patty believes that the sexual division of labor was based on biological differences between women and men, with men being physically stronger to lift deer, elk, and fish traps. Consequently, I would argue that the

sexual division of labor among the Lower Umpqua may have not been extremely rigid before Euro-American contact.

As mentioned earlier, as a general rule, only men and women "doctors" were allowed to smoke (Patty Whereat personal communication, 2000). Also, the person who used a tool such as a pipe made that particular tool. Thus, smoking pipes were probably being made and smoked primarily by men. However, I would suggest that women possibly gathered the clay for these pipes. But who cultivated the tobacco? In Harrington's (1932) ethnography on the Karuk people in northwestern California, he give us insight into the cultivation of tobacco:

They go and see it often. They thin out the other weeds, lest they grow up with it. They do not hoe it, they just weed it out.

The little weeds do not come up much where they have burned. Only bracken [fern] comes up. I do not care how much they burn it off, the bracken is growing there.

Sometimes it does not grow good. When the tobacco plant is kind of dry looking, they say: "It is not going to be good, it is going to be coming up slender like hazel sticks." It is when they have big stalks, that they think that they are good ones, that they will be branchy.

When the leaves get ripe above the base of the stem, then they pick for the first time. They watch it. It is about August when they pick it the first time (Harrington 1932:86-87).

Harrington's (1932) chief informant was a woman named Phoebe Maddux (Karuk) and I would suggest that the "they" mentioned above are women. Boyd (1999) suggests that Northwest Native Americans were not agricultural and past anthropologists have devalued agriculture in the Northwest (Boyd 1999). In addition, Watson and Kennedy (1991) have noted that anthropologists and

archaeologists have not given women the credit they deserve for the domestication of the sunflower and other indigenous plants in the Eastern Woodlands as they are the gatherers of plants. I believe this indicates the continuation of the devaluing of people who do not plow for their food as well as a devaluing of women's work in the Northwest as seen in tobacco cultivation. In turn, I would suggest that women cultivated and harvested the tobacco of the Northwest and that the Lower Umpqua people probably tended to their gardens at Scottsburg in the summer on the Umpqua River.

Rafferty (1998) has provided us with a survey of radiocarbon dates from residues of pipes from North America and has noted that the use of pipes dates to approximately 3,000 years ago. This would correlate with the sandstone pipe from the Umpqua Eden site stratum, which has a date of 2,000 BP. It is not known why humans first started to smoke tobacco. The tobacco leaf has properties that have been noted in the ethnographic record by Coquelle Thompson: "Two or three puffs were enough to make one dizzy" (Jacobs 1935). Thompson and Annie Minor Peterson both commented on the narcotic effects of smoking on Alsea Indians. Thompson described it as being "drunk":

When an Alsea Indian prepared to smoke, he sat down in a nice place with a cup of water nearby, and kept swallowing the smoke again and again and again, they would drink a half a bucket of water, and for an hour, dead drunk, coughing, farting, his wife was seated by him, this was at the John Morris place [somewhere on the Siletz reservation]...(Harrington 1942, reel 25:155).

Harrington (1932) also noted some other uses for tobacco with the Karuk people in northwestern California:

When somebody gets hurt, or cut, then they put on tobacco where he got cut.

When a tooth aches, they wet tobacco, they put it on a hot application rock. They make the rock hot first, then the one that has the toothache lays his face on the rock. He goes to sleep there that way.

The way that they used to do formerly was, whenever the pain jerks in the ear, then one smokes, whenever the pain jerks there. He smacks [inhales] in, then he takes his pipe out of his mouth. Every once in a while he takes the pipe out of his mouth again, then he blows the smoke in the ear. Then the one that has the earache always gets well in a little while.

Anybody blows it into the ear. If there is a suck doctor in the house, she blows it in, for she smokes (Harrington 1932:225-6).

As we can see, tobacco and tobacco smoke had several different uses in Northwest Coast groups. However, why do humans inhale a narcotic smoke? It is possible that humans just enjoy the narcotic effects of tobacco smoke as well as the increase in heart rate which can help in increasing attention and the productivity of an individual.

The production of ceramics is rare in the Northwest Coast culture area (Endzweig 1989). However, we find in southwestern Oregon a tradition called Siskiyou Utility Ware dating from 1,100 to 400 years ago (Mack 1990) as well as a clay vessel found at the mouth of the Coquille River at 35CS43 (Hall 1995). The people of the Umpqua Eden site appear to have had a tradition of smoking straight tubular pipes throughout the time period from 2,000 years ago to Euro-American contact, given that smoking pipes were found at the site. The clay used in the manufacture of these pipes may have come from the shores of the Umpqua River. However, the schist pipes were probably traded from the south into the site, as we find the geologic occurrence of schist and steatite south of the Umpqua River (USGS 1975:87). The geometric artistic motifs of

the clay pipes are also indicative of southern motifs found in basketry. It is possible that the people of the Umpqua Eden site may have interacted more with southern groups as opposed to groups north of the Umpqua River.

Specific artifacts correlate with the idea that the Lower Umpqua people had a trade pattern to the south. We can see the geometric designs in the pipes, which simulate the southern motifs. In addition, the disk money found at the Tahkenitch Landing site is known to be made on the Channel Islands off the southern California coast (Minor and Toepel 1986; Figure 32) and steatite beads from the Tahkenitch Landing site and the steatite pipe from the Lone Ranch site possibly indicated contact with southern groups. In turn, the schist and steatite pipes, the disk money and the steatite beads are archaeological evidence to support Drucker (1955) and Lyman's (1991) models of cultural traditions on the Oregon coast. In addition, the archaeological evidence places the boundary of cultural traditions of the Northwest Coast at the Umpqua River as opposed to the Coquille River.

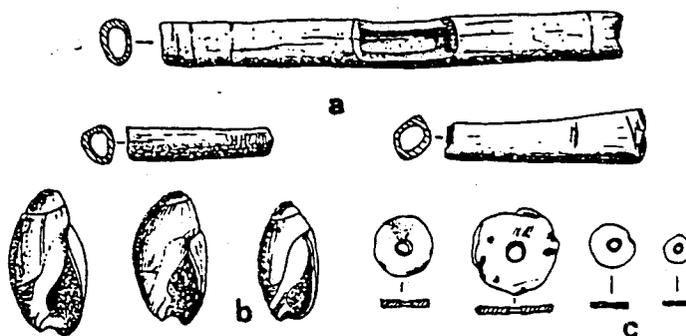


Figure 32. a)bird bone whistle; b) Olivella shell beads; c)clam disk beads from the Tahkenitch Landing site (shown actual size) (Minor and Toepel 1986:81-88).

Chapter 6

CONCLUSION

The people of the Umpqua Eden site lived in an environment that was ever changing. The central Oregon coast is a very dynamic environment and the archaeological record has been affected by coastal erosion, sand dune migration, and sea level rise, providing archaeologists with a biased record. However, given the large and nearby Umpqua River, the Umpqua Eden site occupants possibly did not experience enormous environmental change, such as the sand dunes damming the mouth of the river.

We know that there was continuous use of the Umpqua Eden site from 3,000 years ago to Euro-American contact. Additionally, the faunal assemblage was not limited to a single season. During the period of occupation reflected by the wood plank house floor feature, the site was possibly a *permanent winter village* and was never completely abandoned, as the elderly and children would stay behind while others were out hunting, fishing or gathering.

By using archaeological feminist theory and gender attributions for the artifacts recovered from the Umpqua Eden site to see women's and men's activity areas of the site, I was unable to find these areas. However, a wealth of information on the people of the Oregon coast in prehistory was discovered. For example, we see that there were more than two genders using the ethnographic information and Patty Whereat's comments regarding the two-spirited individual. It appears as though the native groups of North America had found a way to accept the different sexes and/or genders, as they were revered as powerful. In turn, this research challenges Western notions of dualistic thinking. Additionally, the people of the Umpqua Eden site did have

particular jobs. However, the sexual division of labor was not extremely rigid because *everyone* would work on big fishing jobs or build wood plank houses. Also, women and men would accompany each other on their hunting and gathering trips. During the ethnographic period, we see that women were not smoking pipes; however, they were probably cultivating the tobacco and possibly gathering the clay for smoking pipes. I would suggest that there is an agricultural element to the hunter-gatherer native populations of the central Oregon coast. By investigating the *processes* of human labor within the environment, a richer history is gained. Consequently, future archaeological investigations should include gender as an analytic category.

Smoking pipes of the Oregon coast are all straight and tubular, and the Umpqua Eden site pipes have the most artistic motifs. My analysis has shown that sandstone pipes date to approximately 2,000 years ago and the clay smoking pipe may have replaced the sandstone pipe. Schist and steatite pipes were also used among the people of the Oregon coast and may have possibly been traded into the site from southern groups. The use of scientific methodology such as microscopic analysis of the pipes has provided evidence that people were firing their clay pipes in a low temperature reducing atmosphere and using sand temper. In addition, I found a wide range of pipes being used on the Oregon coast given its relatively small geographic location.

The use of anthropological feminist theory has provided this thesis a more holistic view given the critical involvement of members of the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw. It is my hope that this information and analysis of the Umpqua Eden site will provide the Confederated Tribes a richer history.

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