Gahr, D. Ann Trieu, Elizabeth A. Sobel, and Kenneth M. Ames. 2006. Introduction. In *Household Archaeology on the Northwest Coast*, edited by Elizabeth A. Sobel, D. Ann Trieu Gahr, and Kenneth M. Ames, pp. 1-15. International Monographs in Prehistory, Ann Arbor.

# Introduction

# D. Ann Trieu Gahr, Elizabeth A. Sobel, Kenneth M. Ames

Houses have long been a primary focus in Northwest Coast anthropology and archaeology. The rich material culture of native Northwest Coast peoples often reached its grandest expression in the architecture and furnishings of plank houses, and in the social, political, and economic dimensions of household life. Ethnohistoric and ethnographic studies of cultures along the entire Coast consistently portray the house as the physical manifestation of the household and of its social rank. Within the community, a house's location and size often signaled household rank while its interior arrangements reflected status distinctions among household members. Many houses were substantial structures that required skilled construction techniques and large labor investments. They were designed to simultaneously serve as "dwellings ...food processing and storage plants ... workshops and recreation centers ... temple[s] and theater[s] [and] fortresses" (Suttles 1991:214-219). The centrality of the house and household in Northwest Coast anthropological research, both archaeological and ethnological, thus flows naturally from their pivotal role in Northwest Coast societies.

Over the past thirty years, houses and households have come to play major roles in archaeological research and theory building on the evolution of Northwest Coast societies. Research into Northwest Coast households raises important theoretical and methodological issues relevant, we think, not only to Northwest Coast studies but also to a broad array of issues including the origins and evolution of social inequality and the range and diversity of hunter-gatherers (e.g. Ames 2004). This introductory chapter first reviews the history and development of household archaeology on the Northwest Coast and then introduces this volume.

# Houses, Households and Production in Northwest Coast Ethnography

Before European settlement, large wooden dwellings were among the most visible features of

the Northwest Coast's cultural landscape. The earliest journal accounts, such as those of Captain Cook in 1778 (Beaglehole 1955), contain descriptions and pictures of these houses. The pictures range from quick sketches to detailed paintings and engravings. The late nineteenth century produced a remarkable corpus of photographs of house exteriors and interiors. It also produced the first anthropological descriptions of houses and households.

Most of our current understanding of Northwest Coast households comes from the vast ethnographic and ethnohistoric literature for the Coast that has accumulated since the late nineteenth century. While ethnographers and other observers recognized that households were the basic units of Northwest Coast economic production, the household was not their primary focus of inquiry. Rather, kin groups and kinship, not households, were among the primary foci of anthropological interest. Most native Northwest Coast households were comprised of extended, corporate groups. These groups controlled estates of corporeal and non-corporeal property. Corporeal property included regalia, canoes, houses, and rights to exploit resources in particular places, among other things. Non-corporeal property included songs, dances, oral traditions, rights to certain spirit helpers, high statuses and the titles and privileges that went with those statuses. It was clear to anthropologists by the late nineteenth and early twentieth centuries that house size, house position in a village, house decoration and patterns of interior use mapped social relationships within and between households. These maps were particularly visible among central and northern groups such as the Kwakwaka'wakw (e.g. Boas 1921), Nuu-chah-nulth (Nootka) (Drucker 1951), and Coast Tsimshian (Boas 1916), and during events such as the potlatch.

This brief description masks considerable diversity, fluidity and ambiguity. The relationships among kin-groups, households and estates were not tidy ones. In some cases, a household might contain more than one extended kin group (e.g.

Adams 1973); in others a single lineage might span two or three households (e.g. Coupland 1996a). Given residency rules, an extended kin group could have members in several households, the members retaining rights in their common natal household estate. The extended kin-groups themselves varied. On the northern Coast, they were matrilineages. while on the central and southern Coast they were what Jorgensen (1980) terms "patridemes" which are "lineage-like" bilateral descent groups practicing patrilocal residence. They were lineage-like because, among other things, they controlled estates. Affinal relationships could be at least as important as agnatic ties for access to the resources of estates (e.g. Suttles 1960). People, particularly commoners, could shift from household to household. Our intent here is not to delve any deeper into Northwest Coast social organization but to make the point that most Northwest ethnographers conceived Northwest Coast social and economic organization through the lens of kinship. With this emphasis on kin groups, anthropologists viewed households as composed of extended families that were members of extended kin groups.

Ethnographers were also interested in Northwest Coast houses, primarily their architecture and construction. Scholars sometimes provided quite detailed (and important) information although, with the passage of time, these details were increasingly reliant on the memories of elderly informants who themselves may not have seen a plank house or lived in one. Anthropologists were also interested in the origins of the plankhouse and the geographic distribution of its regional variants (see Trieu this volume). This distribution was generally thought to be the result of the migrations of ethno-linguistic groups (e.g. Waterman and Greiner 1921). This interest in architecture and construction continues (e.g. Nabokov and Easton 1988; Vastokas 1966) as does interest in the Northwest Coast house as art (e.g. MacDonald 1983).

In a departure from much of this work, recent research has looked at local variation in house form. Suttles (1991) links house form among the Coast Salish to household size and organization. He argues that Coast Salish house architecture was designed to accommodate fluctuating household sizes in ways that houses to the north and south could not, linking the organizational flexibility of households to house form. Hajda (1994) shows considerable variation among Chinookan plankhouses during the Early Modern Period¹ along the Lower Columbia River while Mackie and Williamson (2003) show equivalent variation in house form

among the houses of a single small Early Modern Nuu-chah-nulth village. This recent research is important because much of our understanding of Northwest Coast culture is based on distillations of the ethnographies into descriptions of what is "typical."There are basic cultural and social themes that play through the Coast, but like a complex musical composition, these themes are more often played as elaborate variations and even improvisations than as straightforward melodies.

Issues of household production, and production generally, were also not important in anthropological accounts of the Coast before 1960. This was largely because of the belief that the Northwest Coast environment was so munificent that the organization of food-getting was not an issue (e.g. Codere 1950). Ethnographies often contain detailed descriptions of aspects of production, including foodgetting techniques and technology, the division of labor, roles of slaves and elites, specialization and so forth, but these are often scattered through the monograph. The first truly coherent, focused description of the organization of production on the Coast was Kalervo Oberg's dissertation (The Social Economy of the Tlingit Indians), which was completed at the University of Chicago in 1933. However, this work was largely unknown and unused until published in 1973. In it, Oberg analyzed production primarily at the household level. Wayne Suttles' dissertation (Suttles 1951) also examined production at the household and family levels among Straits Coast Salish. Suttles' dissertation was not widely available until 1974<sup>2</sup>. A third ethnography. which appeared in 1973 (Adams 1973), focused on households, the household cycle and household recruitment among the Gitksan of northern British Columbia. These three ethnographies, coincidently all published at approximately the same time, are the first ethnographic analyses of household production on the Northwest Coast. These works were followed in 1988 by an edited volume that focused on Northwest economies, which made clear the economic centrality of the household (Mitchell and Donald 1988).

Issues of household production and distribution were also implicit in the debate engendered by Suttles' (1960, 1962, 1968) and Vayda's (1961) argument that the Northwest Coast's environment, while rich, was also quite variable, and Northwest Coast social institutions, particularly marriage, were social mechanisms of coping with this variation. Piddocke (1965) carried this argument to a functionalist extreme, drawing upon Boas' descriptions of the Kwakwaka'wakw numaym or household

group. This debate (e.g. Drucker and Heizer 1976) drew focused anthropological attention to the Coast's ecology and economies for the first time.

Claude Lévi-Strauss also drew upon Boas' descriptions of the *numaym* to formulate his concept of House societies (see Ames, this volume; Marshall, this volume; and Trieu, this volume) published in English in 1982 (Lévi-Strauss 1982). In the House society concept, Lévi-Strauss grappled with the ambiguities of how household members were recruited and held together on the Coast. He emphasized that kinship was not a key element in the organization and persistence of Northwest Coast households, which he labels "Houses." Rather, the physical house itself and its associated estate were central. Even before the English publication of Lévi-Strauss' ideas, interest in both Northwest Coast houses and households had shifted from sociocultural anthropologists to archaeologists.

# The Archaeology of Northwest Coast Houses and Households

Until relatively recently, houses were not a common focus of archaeological research or excavations on the Northwest Coast. It should be stressed here, however, that archaeology on the Northwest Coast is largely a post-World War II phenomenon (e.g. Carlson 1990), in contrast with ethnographic research. Initially, because so little archaeology had been done, houses and household production were not high on any list of pressing archaeological research questions. When encountered, houses were usually treated as clusters of features rather than as units of analysis—household archaeology requires the latter. In the Northwest or Cascadia<sup>3</sup> generally (coast and interior), houses were of interest primarily as markers of the development of the historic ethnographic pattern; they were indicator fossils of a particular life way. What was important was their presence or absence. There was little or no interest in the households that lived in the houses. De Laguna's pioneering work in southeast Alaska in the late 1940s and the 1950s is a notable exception (de Laguna et al. 1964), anticipating many aspects of household archaeology as it later developed on the Coast.

De Laguna and her associates conducted test and block excavations of houses at the Old Town site in Yakutat Bay (de Laguna 1972). The houses probably date to the late eighteenth and early to midnineteenth centuries. The researchers attempted to reconstruct details of house construction, drawing upon both the excavations and the ethnohistoric and ethnographic records, and anticipated current concerns with houses as archaeological deposits (Samuels this volume; Smith this volume). They also treat the house as an analytical unit by reporting artifacts (although not fauna) by house. However, their primary focus was on the houses as structures, not the households that lived in the houses.

Interest in Northwest Coast houses and households as analytical units developed in the late 1960s and early 1970s as a consequence of excavations treating houses as units of analysis and interpretation, and due to growing interest in the evolution of social complexity on the Northwest Coast and among hunter-gatherers. The first excavations focusing on houses as analytical units began simultaneously in 1970, with excavations at the Ozette site on the coast of Washington State (Samuels and Daugherty 1991) and at the Richardson Ranch site (Fladmark 1974) on the Queen Charlotte Islands (a.k.a. Haida Gwaii). Ozette was a Makah village that had been partially buried beneath a catastrophic mudslide in A.D. 1700. The mudslide produced a wet, anaerobic environment that preserved organic matter, including most of three houses. For a variety of reasons (Samuels and Daugherty 1991) these houses became the central analytical units around which the project was organized (see Samuels this volume). Fladmark, on the other hand, elected to test excavate a nineteenth century Haida house, partially to develop an archaeological baseline against which to compare prehistoric components but also to archaeologically explore the impacts of contact on the Haida and their response to it. Among other things, he explored the relationships between the spatial distribution of artifact classes, social status, and the development of a particular specialization, argillite carving, for which the nineteenth century Haida are famous. So far as we are aware, these are the first excavations on the Northwest Coast to explicitly investigate the organization of household production and the relationship between production and rank.

In addition to their focus on houses, both projects saw household archaeology (although neither used the term) as the only means to test the famous ethnographic and historic accounts of Northwest Coast culture, society and economy. Ozette predates contact by less than a century, and Richardson Ranch is contemporary with major ethnographic accounts for the northern Northwest Coast. Fladmark was explicit in seeing archaeology as the only way of testing and correcting the ethnographies and generalizations based upon them. This testing

remains a central role of household archaeology and archaeology more generally on the Coast.

However, starting in 1975, the major impetus for Northwest Coast household archaeology was growing interest among archaeologists in explaining Northwest Coast social complexity, including its permanent social inequality (Ames 1981, 1983; Fladmark 1975; Matson 1983; Schalk 1977). At the same time, archaeologists more generally became interested in social complexity among hunter-gatherers (Hayden 1981; Hayden and Cannon 1982; Koyama and Thomas 1981; Price 1981; Price and Brown 1985) and households (Flannery 1976; Wilk and Rathje 1982). These two general trends—complex hunter-gatherers and household archaeology-were persuasively connected by Hayden and Cannon (1982) who argued that the development of closed corporate groups, which included some kinds of households, was fundamental to the evolution of social complexity. It was clear by the early 1980s that the household was the cockpit within which complexity on the Northwest Coast had evolved.

Coupland's dissertation field research was the first explicit application of household archaeology in a Northwest Coast excavation (Coupland 1985a). In the early 1980s, he sampled three of the 10 houses at the Paul Mason site, dated to ca. 1450-950 B.C. Coupland's primary focus was house size as a proxy measure of relative household status. In historic Northwest Coast communities, particularly on the central and northern Coasts, the physical size of a house was a pretty clear indicator of the household's relative status. It was a direct measure of the household's ability to field labor. The houses at Paul Mason are all quite small, leading Coupland to argue that social organization at that time was still egalitarian. Relative house size continues to be used by archaeologists working on the Coast as a measure of relative household prestige and status (Acheson 1991; Archer 2001; Maschner 1992; Sobel 2004). Coupland's own work continues to emphasize households as the central organizational entities for understanding Northwest Coast social and economic evolution (Coupland 1985b, 1988a, 1988b, 1996a; Coupland and Banning 1996; Coupland et al. 1993, 2003).

In 1985 Ames argued that the development of social inequality on the Northwest Coast was shaped by the Domestic Mode of Production (DMP) (Sahlins 1972), focusing on household organization and how the household was integrated into interaction spheres (Ames 1985:157). As Ames discusses in this volume, the DMP was based on theories of peasant household economies.

Subsequent work has explored aspects of household production and consumption (Mitchell and Donald 1988), including specialization and its linkages to inequality (e.g. Ames 1996; Chatters 1989; Grier 2001; Huelsbeck 1988, 1989, 1991; Wessen 1988, 1991), labor and task organization (Ames 1985, 1995, 1996, 2001; Ames and Maschner 1999; Coupland 1985b, 1988a, 1996a; Matson 1992, 1996), the intensification of production (Coupland 1988a; Matson 1985) and issues surrounding the excavation and analysis of Northwest Coast plankhouses (Ames et al. 1992; Matson 2003; Mauger 1991; Samuels 1991, this volume; etc.). Coupland and Banning (1996) expanded the geographic scope of these discussions, editing a volume on the archaeology of "large domestic structures."

Addressing these social and economic issues has also forced archaeologists working on the Coast to disentangle the site formation processes that plankhouses produce. Plankhouse sampling (e.g. Matson and Coupland 1995) and taphonomy have emerged as major issues in Northwest Coast archaeology (e.g. Blukis-Onat 1985; Matson 2003).

This ongoing work has usually been done within one of three major theoretical currents regarding the basic nature of the Northwest Coast household (Ames this volume). The most widely applied approach defines the household as a functional unit, an idea that archaeologists first used about three decades ago (Flannery and Winter 1976; Hill 1970; Sheets 1979) and employed more extensively in the 1980s (e.g. Wilk and Rathje 1982). A second approach defines Coast households as residential corporate groups. The third and least developed theoretical current uses Lévi-Strauss' concept of the House society (1982), conceptualizing the Northwest Coast household as a "House"—a particular type of corporate group that owns intangible and tangible property, and maintains itself over the long-term by transmitting its property across generations within a real or ideal lineage. Most authors in this volume employ one of these three frameworks, explicitly or implicitly. However, Ames points out that the three theoretical frameworks are not mutually exclusive and can be productively integrated. His paper employs the three perspectives in a complementary fashion, perhaps laying the groundwork for increasing integration of these various theoretical frameworks in Northwest Coast household studies.

## A Note On Terminology

The reader of this volume needs to be aware of

two sets of terms: those referring to the dwellings within which Northwest Coast households lived, and terms for the households themselves. Northwest Coast specialists generally call the dwellings plankhouses, although the more generic term longhouse is gaining currency among Indian/First Nations peoples, the general public and, to a lesser extent, anthropologists and archaeologists. This is happening, at least in part, we think, because modern ones are used primarily for ceremonial purposes and, in western North America, "longhouse" is widely applied to Native ceremonial structures which vary greatly architecturally, but are usually long houses.

Plankhouses are large post and beam structures clad, roofed and sometimes floored with wood planks. Western red cedar (Thuja plicata) was the tree most commonly used, and is famous for the relative ease with which it can be split into thin, wide planks (e.g. 5 cm thick x 100 cm wide by 5–10 meters long). The dwellings themselves varied considerably, as the reader of this volume will learn, in size and construction details, but they had some very basic commonalities: they were square to rectangular with either gabled or sloping "shed" roofs; they were often semi-subterranean to some degree; floors were either planked or earthen (sometimes covered with sand, clay, fine gravels, crushed shell, matting); their interiors contained one or more hearths; and they usually had sleeping platforms or benches aligned along two or more interior walls.

The second and more confusing set of terms refers to the group that lives inside these impressive structures. Anthropologists generally recognize that Northwest Coast societies featured several nested residential units. However, no single term for each unit is consistently used, creating confusion and perhaps unnecessary debate. We approach this terminological morass by reviewing the four basic residential units that characterized Northwest Coast societies as indicated by ethnographies, and the labels that anthropologists have applied to these units.

The terms *village*, *town*, and *community* are widely applied to the people who lived in the same winter settlement and who "acted as a social unit at least part of each year," mainly in the context of ceremonial and defensive activities, and less often in the context of subsistence activities (Mitchell and Donald 1988:294; chapters in Suttles 1990a). Some researchers also refer to this unit as a *local group* (Mitchell and Donald 1988:294).

Each winter settlement consisted of one or

more plankhouses. Most researchers generally apply the label household to the social unit that co-resided in each single plankhouse (e.g. Ames and Maschner 1999; Matson and Coupland 1995: Suttles 1990b:464). However, Mitchell and Donald (1988:298) refer to this social unit as the extended household; Oberg (1973) as the house group. It is clear that the household was corporate in nature: it consisted of at least several family units, owned property, featured internal hierarchy, and often had a multi-generational lifespan (Suttles 1990a; papers in this volume). Hence, the household was a residential corporate group, also known as a corporate household. Here, we refer to this unit as both a household and a corporate household, using these labels interchangeably.

Several nuclear and/or composite families (the latter involving polygynous unions) resided in each plankhouse. Many anthropologists refer to each such unit simply as a family. However, Mitchell and Donald (1988) label this unit an *independent household*.

Many if not all Northwest Coast societies contained a residential unit that was either coterminous with the household, or nested between the household and the community. This was the kin-based or lineage-like corporate group, and is variously referred to as a lineage (e.g. de Laguna 1990:213; Mitchell and Donald 1988), corporate household (Ames 1995, 2003), House (Ames 1995, 2004; Coupland 1996a; Marshall 2000, this volume; Trieu this volume), house group (e.g. de Laguna 1990:213; Oberg 1973), local group (Drucker 1951; Suttles 1990b:464), deme (Jorgenson 1980) and, in the case of the Kwakwaka'wakw, numaym (Codere 1990). This variation reflects the different ways household members were recruited. On the northern Coast, for example, houses usually contained one or more matrilineages; on the southern Coast, kin recruitment was bilateral. Several of the authors in this volume refer to this unit as a *House*. While documentary sources clearly indicate the presence of Houses on the central and northern Coast, they do not clarify whether Houses characterized southern Coast societies (see papers in Suttles 1990a). Northwest Coast ethnographic data indicate that historically, some Houses were composed of one corporate household, while other Houses were composed of two or more corporate households (e.g. Codere 1990; Halpin and Seguin 1990:274; Suttles 1990c:464). Thus, in some cases, the corporate household was completely coterminous with the House, while in other cases two or more corporate households composed the House. In the latter case,

one corporate group (House) contained another (household).

This array of terms for each organizational level involves several problems. First, communication about Northwest Coast societies and households is impeded because different researchers use the same term in reference to different residential units. For example, the term local group has been used as a label for both the community and the House, while the term corporate household has been used as a label for both the household and the House. Until scholars agree upon a single set of meanings for each term, or unless each scholar explicitly defines the meaning of his/her terms for residential units, more confusion will prevail than is necessary.

Second, documentary sources cannot always clarify the relationship between household and House in some Northwest Coast societies and it is even more difficult to use archaeological data to assess the relationship between household and House (as discussed for the Tsimshian by Coupland [1996a:75]). In particular, it is quite difficult to use archaeological data to determine whether or not a community contained Houses and, if so, whether each household was a partial or complete House.

Third, it can be difficult archaeologically to distinguish between houses, and hence between households. This is the case because some sites contain remains of two or more attached structures. At these sites, each multi-structural feature is presumably the remains of either (a) two or more houses that were physically attached to each other, or; (b) one large and internally segmented house (e.g. Greene 1999; Matson 1999, 2003; Sobel, this volume). In these cases, we can usually only hypothesize about whether each multi-structural feature should be regarded as the remains of several households living in contiguous plankhouses, or one household residing in an internally segmented plankhouse.

#### This Volume

The papers in this volume present the current state of Northwest Coast household archaeology. The household studies gathered here address a range of issues including architecture, domestic cycles, household production and distribution, social hierarchy, the origin and evolution of Northwest Coast settlement patterns, post-contact sociopolitical and economic change as well as the taphonomy of the material remains of household activities. The papers introduce new theoretical angles on the role of the household in social, political, and economic dimensions of Northwest Coast native life. In addi-

tion, these studies apply a variety of methodological and analytical tools to artifact and feature data. The result is a set of fine-tuned and robust analyses of household material culture, and the first collection of studies focused on the archaeology of Northwest Coast households.

#### Theoretical Themes

Two recurrent theoretical themes can be traced throughout this volume: 1) hierarchy and households, and 2) temporality and households.

# Social, Political, and Economic Hierarchy

All papers in this collection address in some way the relationship between hierarchy and the household, and many of the papers center on this relationship. This attention to the articulation of households with systems of hierarchy indicates a general consensus among researchers that (1) we still have much to learn concerning the role of the household in the evolution and structure of social, political, and economic hierarchy on the Coast, and (2) archaeological research is a particularly effective means of learning about these things.

A number of papers address the relationship between sociopolitical hierarchy and household production. Samuels' study, expanding on previous analyses of the Ozette site, examines variation in household production between an elite household and a commoner household. His results suggest that the intensity of production was similar in elite and commoner households. However, the elite household invested a higher proportion of its productive resources in woodworking, ethnographically a relatively high prestige activity, whereas the lower status household invested a higher proportion of its productive resources in hunting terrestrial animals, ethnographically a relatively low prestige activity. Ames considers variation in household production in terms of household demography and risk management strategies, which in turn relate to household sociopolitical status. In his simulation of household cycles, larger households, often of fairly high status, were relatively stable and survived for long periods of time while smaller households, often of lower status, were more vulnerable to failure. Ames speculates that a household had to recruit members through birth, adoption, or other means such as slavery in order to maintain a labor force large enough to produce the surplus resources needed to gain and maintain high status as well

as to survive over the long term. Coupland also addresses the dynamic between household status and labor force. Based on his analysis of the McNichol Creek site, he proposes that the architecture of a chief's house signaled his affluence and power, and thereby served to attract commoners into the household as an additional labor source.

Several papers explore the ways status hierarchies relate to unequal control over household production and consumption. Martindale's archaeological analysis of one Tsimshian household points to differential control over stored subsistence surpluses, with higher status families wielding more control than other families within the household. Ellis provides a contrasting view of the large multifamily household. In his study of the remains of small houses at the Broken Tops site, he found no storage facilities or tools commonly associated with elite activities. He concludes that in the Lower Columbia River region at least, some households consisted entirely of commoners. Moreover, he suggests that these commoner households survived on a hand-to-mouth basis with production directed toward meeting immediate needs rather than producing surplus for winter months. Ellis further speculates that elites had little control over production and consumption by commoner households.

Several papers offer a different perspective on the interplay between household economy and status, examining the relative contributions of two processes—exchange and surplus production—in creating and maintaining household status hierarchies. Martindale, applying a Neo-Marxist perspective to archaeological and documentary data from the Tsimshian, argues that sociopolitical hierarchy was strongly bound to household economics, especially to the interplay between household subsistence production, wealth production, and exchange. He attributes the development of a shortlived proto-contract paramount chiefdom among the Tsimshian to the intensification of household wealth economies, a shift in household mobility and exchange patterns, and concomitant changes in relations between households. While the increasing emphasis on wealth production may have facilitated the evolution of a short-lived chiefdom, it also led to the demise of the traditional, extended family household. Sobel examines the interplay between household production and exchange from a different angle. Using obsidian artifact data from multiple house features at each of two Lower Columbia sites. Sobel considers the degree to which household involvement in regional exchange networks, as opposed to household production, affected household prestige in Lower Columbia communities. She concludes that exchange activity was more important while production was less important as a determinant of household prestige at one site than at the other, due in large part to differences in settlement location relative to travel routes and trade centers.

Coupland and Trieu place the house dwelling at the center of research on social and political hierarchy. Coupland uses theoretical research on architectural communication and ethnographic data from the northern Northwest Coast to develop a model of the ways that house architecture conveyed information about social, political, and economic status both inwardly, to house residents, and outwardly, to residents of other houses and communities. He then applies this model to the McNichol Creek site, a north Coast archaeological site dated to ca. 1800-1500 B.P. Coupland's analysis elucidates the link between intra- and interhousehold hierarchies, showing how the symbolic dimensions of house architecture simultaneously functioned within both parts of the status system at McNichol Creek. He argues that within the McNichol Creek community, the size, location, and building materials of House O communicated the wealth, rank, and power of the house owner—the inferred town chief—to residents of other houses and settlements. The architecture of House O also generated and maintained status hierarchy within the household by conveying information about status inwardly, to those living within the house, and thereby structuring the use of space and dayto-day relations within the house. While Coupland's examination focuses on the symbolic aspects of architecture, Trieu looks at the material aspects of architecture. Trieu uses Lévi-Strauss's concept of the House society, together with documentary and archaeological data from throughout the Coast, to show how the house was the fundamental piece of property owned by the Northwest Coast house group historically. Central to her analysis is the life cycle of the house structure -- its passage through phases of construction, maintenance, and demise. She argues that the production and intergenerational transmission of the house was material to the reproduction of status hierarchy both within and between households. As a result, she asserts, the nature and timing of house construction, maintenance, and demise were both determinants and products of the social, political, and economic status of a household leader and of the household unit.

Two papers consider another issue of long-term interest in the anthropology of households and

hierarchy on the Coast—the importance of elite privilege as opposed to elite managerial roles in the development and structure of ranking. Trieu challenges the predominant current approach to Northwest Coast social hierarchies as systems organized to facilitate elite privilege, suggesting that it is also productive to consider these hierarchies as systems that saddle elites with obligations to construct and maintain multi-generational households. In contrast, Ellis emphasizes elite privilege, using his Lower Columbia data to argue that by virtue of the prerogatives that came with high rank, elite households were better off than commoner households in times of stress. Ellis models a system in which elite households held many privileges, but these privileges were not necessarily gained through exploitation of commoner households, though perhaps by exploitation of commoners and slaves within elite households.

Temporality: Evolution and Continuity

All archaeologists research temporal phenomena. However, some of the papers in this volume raise and address questions especially pertinent to cultivating a better understanding of evolution and continuity in households. These questions span a range of topics from the origins and evolution of households on the Northwest Coast to the changes that characterized households over the past few centuries in the wake of European colonization.

Marshall focuses on long-term evolutionary trends in social organization throughout the Northwest Coast. She integrates Wilson's concept of "domesticated" societies with Lévi-Strauss' concept of House societies. Both concepts share the notion of social continuity defined by the built environment and attachment to place. Marshall overviews the precontact evolution of people's relationships to place and built environments on the Coast. Fundamental to this development is the increasing formalization of settlements and what she refers to as "the emergence of neighbors" and host/guest interactions. Ames, too, seeks to understand the evolution of Northwest Coast households or Houses in the context of interaction at the community or regional level. He proposes that Northwest Coast social and political hierarchies may have co-evolved with the household or House.

Another angle of questioning on temporality emerges from analyses of individual houses. Grier provides the most detailed such study, examining intra-household dynamics and inequality through an

archaeological case study of the Dionisio point site, located on the central Coast. Employing practice theory, he argues that evidence from the Dionisio Point site indicates long-term continuity in the use of space, including the distribution of prestige goods, within the house. Grier suggests that his results reflect the inter-generational transmission of patterns of household organization that in turn facilitated social hierarchy. Smith's study of the Meier site house feature also provides evidence of long-term continuity in household organization. Likewise, Ames and Trieu are concerned with the inter-generational transmission of aspects of household organization, and how such transmission relates to long-term continuity and change in the structure of ranking.

While some house remains reflect long-term continuity, others reflect a history of change or a short lifespan. Martindale's study of the development of Tsimshian society from the late pre-contact through early post-contact periods explores how changes in household production facilitated a change from traditional extended family households to modern nuclear family households. This fundamental change in household organization was "at the core" of broader social, political, and economic changes, including the demise of the traditional system of sociopolitical hierarchy during the transition from the proto- to post-contact periods. Samuels also examines change over time in household production and its relationship to status systems, finding evidence of change in the elite household but not in commoner households at Ozette. These results may indicate that the elite household attained or maintained its high status through strategic changes in the organization of household production.

#### Methodological Considerations

The studies in this volume address a variety of methodological concerns. Among these concerns, three seem especially important to the productive analysis and interpretation of the archaeological remains of households: 1) methods for studying the site formation processes that create household remains, 2) identifying useful archaeological correlates of the household, and 3) the integration of ethnographic, ethnohistoric, and archaeological household data.

# Site Formation Processes

All the papers in this volume deal with the

material remains of households, however, papers by Smith, Samuels, and Grier particularly demonstrate how sociopolitical dynamics may be examined in the archaeological record by careful attention to taphonomy. Smith's paper is instructional, detailing a comprehensive range of processes that can affect house remains. He discusses cultural and natural processes, as well as artifact analytical methods and how they inform archaeological interpretations. Smith emphasizes that prior to interpreting artifact spatial distributions as evidence of social, political and economic variation within and between households, the full range of site formation processes must be considered. Grier's analysis of long-term continuity in artifact distributions reveals some of the challenges in identifying discrete spatial patterns of artifacts in the deep deposits resulting from long-term occupations. Samuels also explores how site formation processes affect archaeological interpretations of household social and economic dynamics. One of the most interesting parts of his study is the way in which his attention to taphonomy at Ozette reveals that variation in housecleaning practices affected variation between houses in midden development and artifact distributions; the analysis shows that the floor of the elite house was kept clean of debris, possibly because elites often hosted public events such as feasts and dances, whereas the floors of commoner houses were cleaned less thoroughly. Samuels' study provides a clearcut example of how understanding taphonomic processes informs us about potential pitfalls in the interpretation of archaeological data, as set out by Smith.

## Archaeological Correlates of the Household

An ongoing debate in household archaeology concerns archaeological correlates of the household (Allison 1999:4-5). In part, the debate stems from the lack of a universal correspondence between the household and the co-residential unit. Archaeologists have long recognized that in some parts of the world, the household does not correspond to the co-residential unit. However, when it can be justified, archaeologists usually characterize the household as a co-residential group, since this characterization is well-suited to the spatial and material dimensions of archaeology; whenever we can assume that the household was a co-residential unit, we can use the house and its archaeological remains as a correlate of the household. Most archaeologists working on the Coast apply the label "household" to the multi-family unit that co-resided

in one plankhouse, and thus treat the plankhouse and its remains as the correlate of the household. Following this practice, most contributors to this volume regard the plankhouse as the correlate of the household.

Northwest Coast archaeologists are concerned with identifying not only correlates of the household, but also correlates of intra- and inter-household hierarchy. The identification and interpretation of these correlates is integral, both methodologically and theoretically, to nearly all archaeological investigations of the articulation between households and hierarchy in Northwest Coast societies. Based on theoretical considerations, ethnographic models, and/or previous archaeological research, the papers in this volume use several variables as correlates of inter-household status hierarchies, including archaeological evidence of variation in: house size (Coupland, Ellis, Samuels, Sobel); house location within a settlement (Coupland, Marshall, Samuels, Sobel); house construction materials and design (Coupland, Ellis, Trieu); storage facilities (Ellis); presence or absence of a large central hearth (Coupland, Samuels); the frequency, taxonomic diversity, and condition of faunal remains (Coupland, Samuels); and the frequency and diversity of portable prestige goods (Ellis, Sobel). Papers in this volume also suggest that throughout the Northwest Coast, archaeological evidence of variation in house longevity (Ames, Grier, Marshall, Trieu) and house-cleaning activity (Samuels) may be reliable correlates of inter-household status hierarchy. In addition, several papers define and use correlates of intra-household status hierarchy. These correlates include variation in: location of living area within a house (Smith); house construction materials (Coupland); storage facilities (Martindale); the frequency and taxonomic diversity of subsistence remains (Coupland, Martindale); and the frequency and diversity of portable prestige goods (Coupland, Grier, Martindale).

Integration of Ethnographical, Ethnohistorical, and Archaeological Data

One methodological aspect of every paper in this volume is the integration of documentary (ethnographical and/or ethnohistorical) with archaeological data to explore Northwest Coast society and culture. The temporal and geographic correspondence between documentary and archaeological data sets varies, as some studies involve the historical archaeology of indigenous sites (e.g. Martindale, Smith, Sobel), while others involve the

direct historical approach to late pre-contact sites (e.g. Coupland, Ellis, Martindale, Samuels, Smith, Sobel), and still others involve more general forms of ethnographic analogy (e.g. Ames, Trieu). This use of documentary sources in the interpretation of archaeological remains has long characterized archaeological research on the Coast; for decades, Northwest Coast archaeologists have drawn on the rich ethnographic and historical record of Native peoples in the region (e.g. de Laguna 1960). In addition, some archaeologists have investigated house sites in concert with native individuals who aided in the interpretation.

Traditionally, archaeologists working on the Northwest Coast rely on ethnographic data to model post-contact societies and cultures, and then use these models in three basic ways: (1) to identify archaeological evidence of behaviors represented in the ethnographic models, (2) to determine how, when, and why the societies and cultures represented in ethnographic models evolved, and (3) as ideas to be tested through archaeological research. To varying degrees, all papers in this volume apply the first approach, and several papers (e.g. Ames, Marshall) apply elements of the second approach. The third approach is implicit in all papers in this volume. In addition, the studies reported here demonstrate some new and inventive ways of integrating ethnographic, historical, and archaeological data. For example, Ames uses ethnographic data to develop a simulation model of the household cycle in a hypothetical Northwest Coast community, and discusses how the simulation results can inform archaeological inferences about past households and communities in the region. In addition, several authors (e.g. Ames, Coupland, Marshall, Trieu) use Northwest Coast ethnographic data to justify applications of general theoretical frameworks to archaeological data from the Coast.

Moreover, studies in this book demonstrate that despite the relative wealth of documentary data about Northwest Coast peoples, archaeological data are essential for researching Native houses and households not only in the pre-contact period, but also in the post-contact period. The papers by Martindale and Trieu highlight this critical role of archaeology in research on historical houses and households. Martindale's analysis shows that despite an abundance of ethnographic and historical information about the Tsimshian people of the early twentieth century, only the archaeological record reveals that traditional household organization persisted until the early twentieth century among some Tsimshian. Previous to this archaeological

finding, Martindale and others had assumed, based largely on documentary sources, that traditional household organization had evolved into nuclear family household organization nearly a century earlier among the Tsimshian. In Trieu's study of the house life cycle, her examination of ethnographic, historical, and archaeological data from throughout the Coast indicates that although documentary sources contain a fair amount of information about house construction and demise, the archaeological record contains much more information about house maintenance—the middle portion of the house life cycle.

## Comparative Perspective

The concluding paper in this volume is a comparative perspective of household archaeology rendered by Jeanne Arnold. Her long-term research on Chumash households on the Channel Islands of California provides her the opportunity to compare and contrast the material culture of two societies from the West Coast of North America supported by fishing, hunting, and gathering economies. The peoples of the Northwest Coast and the California Channel Islanders have long been lumped as sedentary, socially complex hunting-and-gathering societies in anthropological theorizing. Yet, as Arnold points out, material manifestations of these cultures were dramatically different, especially with regard to houses. The Northwest Coast with its substantial investments in house architecture and the centrality of the house in traditional culture contrasts sharply with the Channel Islanders' markedly minimal investment in architecture and small households, but well developed plank canoe industry and large scale craft production.

# Organization of this Volume

We found it difficult to place the papers in this volume into separate titled sections because the studies exhibit many topical, theoretical and methodological crosscurrents. Consequently, we have organized the volume so that each study picks up threads of the prior study, continuing the preceding discussion or turning it for view in another light. The first three papers are broad in geographical coverage and theoretical perspective. The following seven papers use specific case studies to develop and highlight insights into major questions confronting Northwest Coast archaeologists. The final paper is again more general in scope, providing a comparative perspective.

#### Notes

<sup>1</sup> The Early Modern Period (Ames and Maschner 1999) spans the period from first direct contact on the Coast (ca. 1778) to the establishment of reservations in the USA and reserves in Canada, ca. 1855. The term "Early Modern" avoids the various implications of "Historic Period" etc.

<sup>2</sup> Suttles' dissertation was published without his approval as part of Garland Press' series of published Indian land claims documents.

<sup>3</sup> Cascadia is a useful term that includes southeast Alaska, British Columbia west of the Canadian Rockies, Washington State, western Oregon, much of central and eastern Oregon, much of Idaho and western Montana. It essentially includes those regions drained by salmon-bearing rivers. In terms of cultural areas, it includes the Northwest Coast, Intermontane Plateau and southerly portions of the Subarctic (in British Columbia).

#### References Cited

Acheson, S. R.

1991 In the Wake of the ya'aats' xaatgaay [Tron People']: A study of Changing Settlement Strategies among the Kunghit Haida. Ph.D. Dissertation, Oxford University.

Adams, J. W.

1973 The Gitksan Potlatch, Population Flux, Resource Ownership and Reciprocity. Holt, Rinehart, and Winston of Canada, Toronto.

Allison, P.

1999 Archaeology of Household Activities. Routledge, London

Ames, K. M.

1981 The evolution of social ranking on the Northwest Coast of North America.

American Antiquity 46:789-805.

1983 Towards a general model of the development of social hierarchies among foragers. In *The Evolution of Maritime Cultures on the Northeast and Northwest Coasts of America*, edited by R. J. Nash, pp. 173-184. Department of Archaeology Publication, No. 11. Simon Fraser University, Burnaby.

1985 Hierarchies, stress and logistical strategies among hunter-gatherers in northwestern North America. In *Prehistoric Hunter Gatherers: The Emergence of Cultural Complexity*, edited by T. D. Price

and J. Brown, pp. 155-180. Academic Press, New York.

1995 Chiefly power and household production on the Northwest Coast. In *Foundations of Inequality*, edited by T. D. Price and G. M. Feinman, pp. 155-187. Plenum Press, New York.

1996 Life in the Big House: household labor and dwelling size on the Northwest Coast. In People Who Lived in Big Houses: Archaeological Perspectives on Large Domestic Structures, edited by G. Coupland and E. B. Banning, pp. 131-150. Monographs in World Prehistory, vol. 27. Prehistory Press, Madison.

2001 Slaves, chiefs and labour on the northern Northwest Coast. World Archaeology 33(1):1-17.

2003 The Northwest Coast. *Evolutionary Anthropology* 12:19-31.

2004 Supposing hunter-gatherer variability. *American Antiquity* 69:364-374.

Ames, K. M. and H. D. G. Maschner

1999 Peoples of the Northwest Coast: Their Archaeology and Prehistory. Thames and Hudson Ltd., London.

Ames, K. M., D. F. Raetz, S. C. Hamilton and C. McAfee

1992 Household archaeology of a southern Northwest Coast plank house. *Journal* of Field Archaeology 19:275-290.

Archer, D. J. W.

2001 Village patterns and the emergence of ranked society in the Prince Rupert Area. In Perspectives on Northern Northwest Coast Prehistory, edited by J. S. Cybulski, pp. 203-223. Mercury Series, Archaeological Survey of Canada Paper 160. Canadian Museum of Civilization, Hull.

Beaglehole, J. C. (editor)

1955 The Journals of Captain James Cook on his Voyages of Discovery. Published for the Hakluyt Society. Cambridge University Press, Cambridge

Blukis-Onat, A.

1985 The multifunctional use of shellfish remains: from garbage to community engineering. Northwest Anthropological Research Notes 5:6-20.

Boas, F.

1916 Tsimshian Ethnography. Thirty-first Annual Report, U.S. Bureau of American Ethnology, 1909-1910. Smithsonian Institution, Washington D. C. 1921 Ethnology of the Kwakiutl (Based on data collected by George Hunt). 2 pts. In 35th Annual Report of the Bureau of American Ethnology for the Years 1913-1914, pp. 43-1481. Smithsonian Institution, Washington D. C.

Carlson, R. L.

1990 History of research. In Northwest Coast, edited by W. Suttles, pp. 107-115. Handbook of North American Indians, Volume 7, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Chatters, J. C.

1989 The antiquity of economic differentiation within households in the Puget Sound Region, Northwest Coast. In *Households and Communities*, edited by S. MacEachern, D. J. W. Archer, and R. D. Garvin, pp. 168-178. Archaeological Association, University of Calgary, Calgary.

Codere, H.

- 1950 Fighting With Property: A Study of Kwakiutl Potlatching and Warfare, 1792-1930. University of Washington Press, Seattle.
- 1990 Kwakiutl: traditional culture. In Northwest Coast, edited by W. Suttles, pp. 359-377. Handbook of North American Indians, Volume 7, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Coupland, G.

- 1985a Household variability and status differentiation at Kitselas Canyon. *Canadian Journal of Archaeology* 9:39-56.
- 1985b Restricted access, resource control and the evolution of status inequality among hunter-gatherers. In Status, Structure and Stratification: Current Archaeological Reconstructions, edited by M. Thompson, M. T. Garcia and F. J. Kense, pp. 245-252. Archaeological Association of the University of Calgary, Calgary.
- 1988a Prehistoric economic and social change in the Tsimshian area. Research in Economic Anthropology Supplement 3:211-245.
- 1988b Prehistoric culture change at Kitselas Canyon. Archaeological Survey of Canada Mercury Series 138. Ottawa.
- 1996a The evolution of multi-family households on the Northwest Coast of North America. In People Who Lived in Big Houses: Archaeological Perspectives on

Large Domestic Structures, edited by G. Coupland and E. B. Banning, pp. 121-130. Monographs in World Prehistory, No. 27. Prehistory Press, Madison.

1996b The early prehistoric occupation of Kitselas Canyon. In Early Human Occupation in British Columbia, edited by R.L. Carlson and L. Dalla Bona, pp. 159-166. University of British Columbia Press, Vancouver.

Coupland, G. and E. B. Banning (editors)

1996 People Who Lived in Big Houses: Archaeological Perspectives on Large Domestic Structures. Monographs in World Prehistory, No. 27. Prehistory Press, Madison.

Coupland, G., G. Bissel and S. King

1993 Prehistoric subsistence and seasonality at Prince Rupert Harbour: evidence from the McNichol Creek Site. Canadian Journal of Archaeology 17:59-73.

Coupland, G., R. H. Colten, and R. Case

2003 Preliminary analysis of socioeconomic organization at the McNichol Creek Site, British Columbia. In *Emerging from the Mist*, edited by R. G. Matson, G. Coupland and Q. Mackie, pp. 152-169. UBC Press, Vancouver.

de Laguna, F.

- 1960 The Story of a Tlingit Community: A Problem in the Relationship between Archaeological, Ethnological and Historical Methods. Bureau of American Ethnology Bulletin, No. 172. U.S. Government Printing Office, Washington D. C.
- 1972 Under Mount St. Elias: The History and Culture of the Yakutat Tlingit. Smithsonian Contributions to Anthropology, Vol. 7. (in three parts) U.S. Government Printing Office, Washington D. C.
- 1990 Tlingit. In *Northwest Coast*, edited by W. Suttles, pp. 203-228. Handbook of North American Indians, Volume 7, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

de Laguna, F., F. A. Riddell, D. F. McGeein, K. S. Lane, J. A. Freed, and C. Osborne

1964 Archaeology of the Yakutat Bay Area, Alaska. Bureau of American Ethnology Bulletin 192. Washington, D.C.

Drucker, P.

1951 The Northern and Central Nootkan Tribes. Bureau of American Ethnology Bulletin 144. The Smithsonian Institution, Washington D. C. Drucker, P. and R. F. Heizer

1967 To Make My Name Good: A Re-examination of the Southern Kwakiutl Potlatch.
University of California Press, Berkeley.

Fladmark, K. R.

1973 The Richardson Ranch Site: a 19th century Haida house. In *Historical Archaeology on Northwestern North America*, edited by R. M. Getty and K. R. Fladmark, pp. 53-95. Archaeological Association, University of Calgary, Calgary.

1975 A Paleoecological Model for Northwest Coast Prehistory. Archaeological Survey of Canada Paper, Mercury Series, No. 43, Ottawa.

Flannery, K. V. (editor)

1976 The Early Mesoamerican Village. Academic Press, New York.

Flannery, K. V. and M. C. Winter

1976 Analyzing household activities. In The Early Mesoamerican Village, edited by K.
 V. Flannery. Academic Press, New York

Greene, J.

1999 From seasonality to status: an emerging picture of a Coast Salish household based on a floor midden analysis. Paper presented at the 64th Annual Meeting of the Society for American Archaeology, Seattle.

Grier, C.

2001 The Social Economy of a Prehistoric Northwest Coast Plank House. Unpublished Ph.D. Dissertation, Arizona State University.

Hajda, Y.

1994 Notes on Indian houses of the Wapato Valley. Northwest Anthropological Research Notes 28(2):177-188.

Halpin, M. and M. Seguin

1990 Tsimshian peoples: Southern Tsimshian, Coast Tsimshian, Nisga, and Gitksan. In Northwest Coast, edited by W. Suttles, pp. 267-284. Handbook of North American Indians, Volume 7, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Hayden, B.

1981 Research and development in the Stone Age: technological transitions among hunter-gatherers. *Current Anthropology* 22:519-548.

Havden, B. and A. Cannon

1982 The corporate group as an archaeological

unit. Journal of Anthropological Archaeology 1:132-158.

Hill, J. N.

1970 Broken K Pueblo: Prehistoric Social Organization in the American Southwest. University of Arizona Press, Tucson.

Huelsbeck, D. R.

1988 The surplus economy of the Northwest Coast. Research in Economic Anthropology, Supplement 3, 149-177.

1989 Food consumption, resource exploitation and relationships with and between households at Ozette. In *Households and Communities*, edited by S. MacEachern, D. J. W. Archer and R. D. Garvin, pp. 157-166. Archaeological Association, University of Calgary, Calgary.

1991 Mammals and fish in the subsistence economy of Ozette. In Ozette Archaeological Project Research Reports, Volume II, Fauna, edited by S. R. Samuels, pp. 17-92. Washington State University, Department of Anthropology Reports of Investigations 66, National Park Service, Pacific Northwest Regional Office, Seattle, Pullman, WA.

Jorgensen, J. G.

1980 Western Indians: Comparative Environments, Languages, and Cultures of 172 Western American Indian Tribes. W.H. Freeman, San Francisco.

Koyama, S. and D. H. Thomas (editors)

1981 Affluent Foragers: Pacific Coasts East and West, Senri Ethnological Series No. 9. National Museum of Ethnology, Osaka.

Lévi-Strauss, C.

1982 The Way of the Masks (Trans. by S. Modelski). University of Washington Press, Seattle.

MacDonald, G. F.

1983 Haida Monumental Art: Villages of the Queen Charlotte Islands. University of Washington Press, Seattle.

Mackie, A. P. and L. Williamson

2003 Nuu-chah-nulth houses: structural remains and cultural depressions on southwest Vancouver Island. In *Emerging from the Mist: Studies in Northwest Coast Culture History*, edited by R. G. Matson, G. Coupland, and Q. Mackie, pp. 105-151. University of Washington Press, Seattle.

Marshall, Y.

2000 Transformations of Nuu-chah-nulth houses. In *Beyond Kinship: Social and* 

Material Reproduction in House Societies, edited by R. A. Joyce and S. D. Gillespie, pp. 73-102. University of Pennsylvania Press, Philadelphia.

Maschner, H. D. G.

The origins of hunter-gatherer sedentism and political complexity: a case study from the northern Northwest Coast. Unpublished Ph.D. Dissertation, University of California, Santa Barbara.

Matson, R. G.

- 1983 Intensification and the development of cultural complexity: the Northwest versus the Northeast Coast. In *The Evolution of Maritime Cultures on the Northeast and Northwest Coasts of America*, edited by R. J. Nash, pp. 124-148. Department of Archaeology Publication, No. 11. Simon Fraser University, Burnaby.
- 1985 The relationship between sedentism and status inequalities among hunter-gatherers. In Status, Structure and Stratification: Current Archaeological Reconstructions, edited by M. Thompson, M. T. Garcia and F. J. Kense, pp. 245-252. Archaeological Association of the University of Calgary, Calgary.
- 1992 The evolution of Northwest Coast subsistence. In Long-term Subsistence Change in Prehistoric North America, edited by D. E. Croes, R. A. Hakins and B. L. Isaac, pp. 367-430. Research in Economic Anthropology, Supplement 6, JAI Press, Inc., Greenwich.
- 1996 Households as economic organization: a comparison between large houses on the Northwest Coast and in the Southwest. In People Who Lived in Big Houses: Archaeological Perspectives on Large Domestic Structures, edited by G. Coupland and E. Banning, pp. 107-120. Monographs in World Archaeology No. 27, Prehistory Press, Madison, Wisconsin.
- 1999 Coast Salish shed-roof houses and households: lessons from Shingle Point, B.C. Paper presented at the 64th Annual Meeting of the Society for American Archaeology, Seattle.
- 2003 The Coast Salish house: lessons from Shingle Point, Valdes Island, British Columbia. In *Emerging from the Mist*, edited by R. G. Matson, G. Coupland and Q. Mackie, pp. 76-104. UBC Press, Vancouver.

Matson, R. G. and G. Coupland

1995 The Prehistory of the Northwest Coast. Academic Press, Orlando.

Mauger, J. E.

1991 Shed-roof houses at Ozette and in a regional perspective. In Ozette Archaeological Project Research Reports, Volume I: House Structure and Floor Midden, edited by Stephan R. Samuels, pp. 29-174. Washington State University, Department of Anthropology Reports of Investigations 63. National Park Service, Pacific Northwest Regional Office, Pullman, WA.

Mitchell, D. and L. Donald

1988 Archaeology and the study of Northwest Coast economies. In *Prehistoric Econo*mies of the Northwest Coast, pp. 293-351. Research in Economic Anthropology, Supplement 3. JAI Press, Greenwich.

Nabokov, P. and R. Easton

1988 Native American Architecture. Oxford University Press, Oxford.

Oberg, K.

1973 The Social Economy of the Tlingit Indians. University of Washington Press, Seattle.

Piddocke, S.

1965 The potlatch system of the Southern Kwakiutl: a new perspective. Southwestern Journal of Anthropology 21:244-264.

Price, D. T.

1981 Complexity in "non-complex" societies. In Archaeological Approaches to the Study of Complexity, edited by S.E. van der Leeuw, pp. 55-99. Universiteit van Amsterdam, Amsterdam.

Price, T. D. and J. A. Brown (editors)

1985 Prehistoric Hunter-Gatherers: The Emergence of Cultural Complexity. Academic Press, Orlando.

Sahlins, M.

1972 Stone Age Economics. Aldine, Chicago. Samuels, S. R.

1991 Patterns in Ozette floor middens: reflections of social units, In OzetteArchaeological Project Research Reports, Volume 1, House Structure and Floor Midden, edited by S. R. Samuels, pp. 175-284. Washington State University, Department of Anthropology Reports of Investigations 63. National Park Service, Pacific Northwest Regional Office, Pullman, WA.

Samuels, S. R. and R. D. Daugherty

1991 Introduction to the Ozette Archaeological Project. In Ozette Archaeological Project Research Reports, Volume 1, House Structure and Floor Midden. Washington State University, Department of Anthropology Reports of Investigations 63. National Park Service Northwest Regional Office and Washington State University, Pullman, WA.

Schalk, R. F.

1977 The structure of an anadromous fish resource. In *For Theory Building in Archaeology*, edited by L. R. Binford, pp. 207-249. Academic Press, Orlando.

Sheets, P.D.

1979 Maya recovery from volcanic disasters: Ilopango and Ceran. *Archaeology* 32:32-43.

Sobel, E. A.

2004 Social Complexity and Corporate Households on the Southern Northwest Coast.
Unpublished Ph.D. Dissertation, Department of Anthropology, University of Michigan, Ann Arbor

Suttles, W.

- 1951 Economic life of the Coast Salish of Haro and Rosario Straits. Ph.D. Dissertation, University of Washington.
- 1960 Affinal ties, subsistence and prestige among the Coast Salish. *American Anthropologist* 62:296-305.
- 1962 Variation in habitat and culture on the Northwest Coast. Paper presented at the Proceedings of the 34th International Congress of Americanists, Vienna, Austria.
- 1968 Coping with abundance: subsistence on the Northwest Coast. In *Man the Hunter*, edited by R. B. Lee and I. DeVore, pp. 56-68. Aldine, Chicago.
- 1990b Introduction. In *Northwest Coast*, edited by W. Suttles, pp. 1-15. Handbook of North American Indians, Volume 7, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

1990c Central Coast Salish. In *Northwest Coast*, edited by W. Suttles, pp. 453-475. Handbook of North American Indians, Volume 7, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

1991 The shed-roofhouse. In A Time of Gathering: Native Heritage in Washington State, edited by R. K. Wright, pp. 212-222. Burke Museum, Seattle.

Suttles, W. (editor)

1990a Northwest Coast, Handbook of North American Indians, Volume 7, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Vastokas, J. M.

1966 Architecture of the Northwest Coast Indians. Unpublished Ph.D. Dissertation, Columbia University, New York.

Vayda, A. P.

1961 A re-examination of Northwest Coast economic systems. Transactions of the New York Academy of Sciences, Series 2 23(7):618-624.

Waterman, T. T. and R. Greiner

1921 Indian Houses of Puget Sound. Indian Notes and Monographs. Museum of the American Indian, Heye Foundation, New York.

Wessen, G.

- 1988 The use of shellfish resources on the Northwest Coast: the View from Ozette. Research in Economic Anthropology, Supplement 3:293-351. JAI Press, Greenwich.
- 1991 The utilization of whales at Ozette. In Ozette Archaeological Project Research Reports, Volume II, Fauna, edited by S. R. Samuels, pp. 265-391. Washington State University, Department of Anthropology Reports of Investigations 66, National Park Service, Pacific Northwest Regional Office, Seattle, Pullman, WA.

Wilk, R. R. and W. L. Rathje

1982 Household archaeology. In Archaeology of the Household: Building a Prehistory of Domestic Life, R.R. Wilk and W. Rathje, eds. American Behavioral Scientist 25(6):631-640.