

CHAPTER I

Complex Hunter-Gatherers and the Keatley Creek Site

This book is about an unusual prehistoric community called Keatley Creek. The archaeological remains of this site are located in the Middle Fraser Canyon on the western edge of the Northwest Plateau of North America. This book is also about what archaeologists can discover of the inner workings of societies and cultures from the dust and fragments at ancient communities such as Keatley Creek. The results derived from these investigations can be used to understand the origin of the contemporary types of societies that we live in today with all their complexity, powerful corporations, and astonishing material miracles. Finally, this book explores the relationship between natural resources and the societies that use them.

To briefly take up this last point, we can observe that food and energy resources are necessary not only for the survival of our physical bodies, but also for the survival of cultures, cultural values, and ethnic identities. This is why land claims have been given such great importance by native and non-native groups alike: because these claims entail competing uses of resources for different cultural purposes. The urban and technological interface of industrial society has distanced most people from the nature of resource procurement and production in contemporary cultures. Nevertheless, the food and energy resources that modern societies depend upon have molded the nature of our societies, including our individual social relations, social institutions, cultural values, and our political institutions. The same has been true of all human societies in the past. By studying other societies, it is possible to learn a great deal about how resources affect our own behavior and our social or political institutions. This approach is often called “cultural ecology” (Steward, 1968). I will use the excavations at Keatley Creek as a prime example of how resources structured societies at a particularly important level of cultural evolution, the level represented by complex hunter-gatherers.

Complex hunter-gatherers exhibit the first private ownership of resources, the first significant social and economic inequality, and the first political concentration of power in cultural development. But before embarking on an exploration of the society and resources at Keatley Creek, it is necessary to set the stage for our study and provide some of the context that is essential to understand the remains of the Keatley Creek community.

THE SETTING

The Middle Fraser River Canyon in western Canada is a north-south stretch of 75 rough kilometers (km) in the 1,500 km course of the greatest remaining salmon river in the world (Figure 1.1). In this canyon area, a number of unusually large prehistoric housepit villages are located in the Lillooet region. The largest of them is located at Keatley Creek, about 25 km upstream from Lillooet, British Columbia (Figure 1.2). The region is known today for its spectacular topography and climatic extremes. In August 1994, during a week of 114°F (42°C) weather, native elder Maggie Mitchell recalled one winter when the temperature dropped to -60°F (-52°C). In the neighboring Thompson Valley, another native elder told me he remembered one winter when the cattle froze standing up.

The original inhabitants of this region had to contend with these extreme temperatures as well as a precipitous topography. From its source in the Rocky Mountains, the Fraser River arcs westward across the northern reaches of the British Columbian Interior Plateau until it abuts against the high, snow and glacier-covered peaks of the Coast Range near Lillooet (Figure 1.1). It is here that it begins incising its way through the mountains to reach the coast, creating dizzying cliffs, narrow gorges, and majestic waterfalls. In 1808, Simon Fraser, the first Eurocanadian explorer in the region, experienced terror in crossing spindly, native scaffolds built across the sheer cliffs of the river at Hell's Gate. During his journey, he duly noted the many stories of Indians who fell to their deaths off cliff faces and trails. Today, the silt-laden Fraser River, named after Simon Fraser, continues to grind through bedrock sills along a major fault line that separates two great geological terranes. The river cuts through outwash gravels left by the last glaciers and it undercuts cliff faces at river bends, provoking, from time to time, catastrophic collapses of rock into the river far below.

For all the present-day majesty of the surrounding mountains and valleys, only 12,000 years ago, the entire earth's surface here was engulfed with ice to a depth of 2,000 meters (m). The ice in the upper zones flowed from east to west, at right angles to the deep rock-cut Fraser valley underneath that runs toward the south.

At the end of the Ice Age, 10,000 years ago, the melting of these thick masses of ice choked the Middle Fraser Valley with silt, sand, gravel, and boulders. This glacial detritus was deposited as flat outwash and till plains to depths of over 300 m with a thin veneer of fine silt dust (loess) covering the deposits like icing on a cake with thousands of layers. After the glaciers finished melting and filling the valleys with rock and pulverized sediments, the river began slicing through the loose gravels and sands leaving grass-covered terraces and abrupt canyon walls in a region now noted by geologists for its landslides and glacial features (Figures 1.3, 1.4).

When the original inhabitants of Keatley Creek came to live in this land, they wintered away from the river at the back edges of the terraces near the mountain bases. These locations provided some shelter from the harsh winter winds that funneled down the Fraser Valley, rushing far faster than freight trains toward the coast from their high pressure centers in the frozen Interior. These early campsite and village lo-

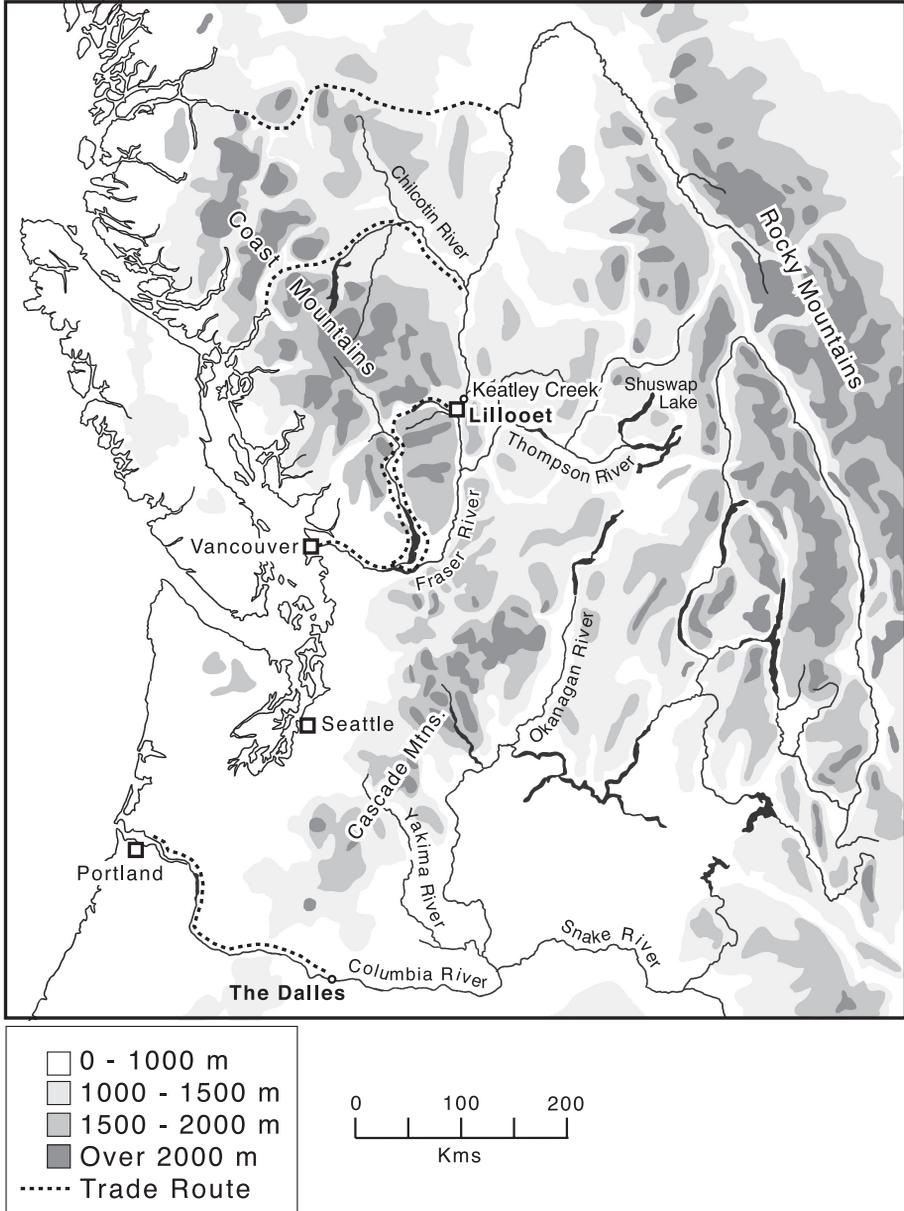


FIGURE 1.1. Map of the Plateau geographical area of northwest North America. The British Columbian subarea of the Plateau extends from the northern reach of the Fraser River to the Canadian border with the United States, and from the Coast Mountains in the west to the Rocky Mountains in the east. The Columbian subarea of the Plateau extends from the Canadian border to the southern drainage of the Columbia and Snake Rivers, and from the Cascade Mountains in the west to the Rocky Mountains in the east. Note that there are only a few easily traveled major trade routes between the Coast and the Plateau.

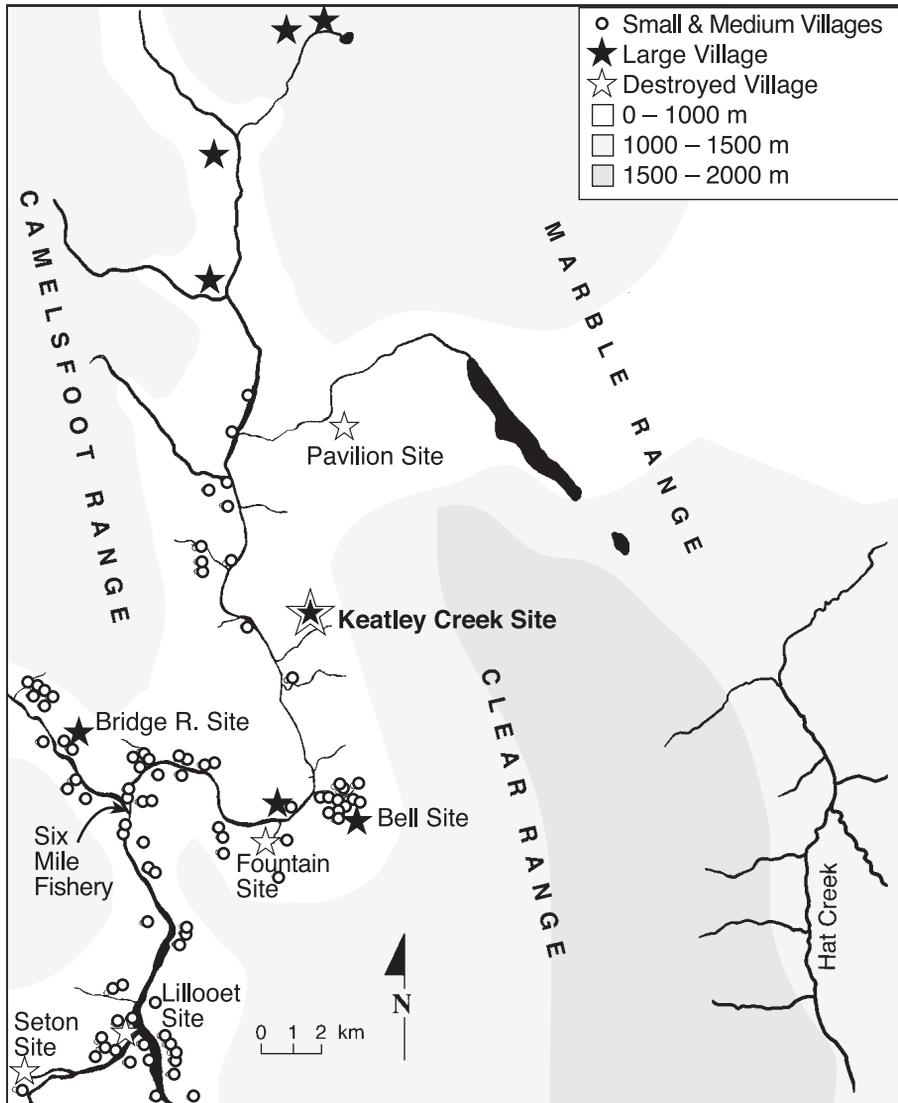


FIGURE 1.2. Map of the Lillooet region of British Columbia showing the distribution of prehistoric housepit sites and the location of Keatley Creek.

cations also provided wood from the mountain slopes, as well as water from creeks. In the springtime, the first inhabitants searched the surrounding hills for signs of shoots or roots, or they scampered down the steep canyon walls hoping to catch a few of the early “spring” salmon. Later, in warmer weather, and again in the fall, they made the arduous trek to the high alpine meadows in the mountains behind their villages to hunt deer and collect rich, starchy alpine roots.

The village at Keatley Creek was located in a well-protected till depression and was sheltered from the severe winter winds. However, mere good shelter, wood, and

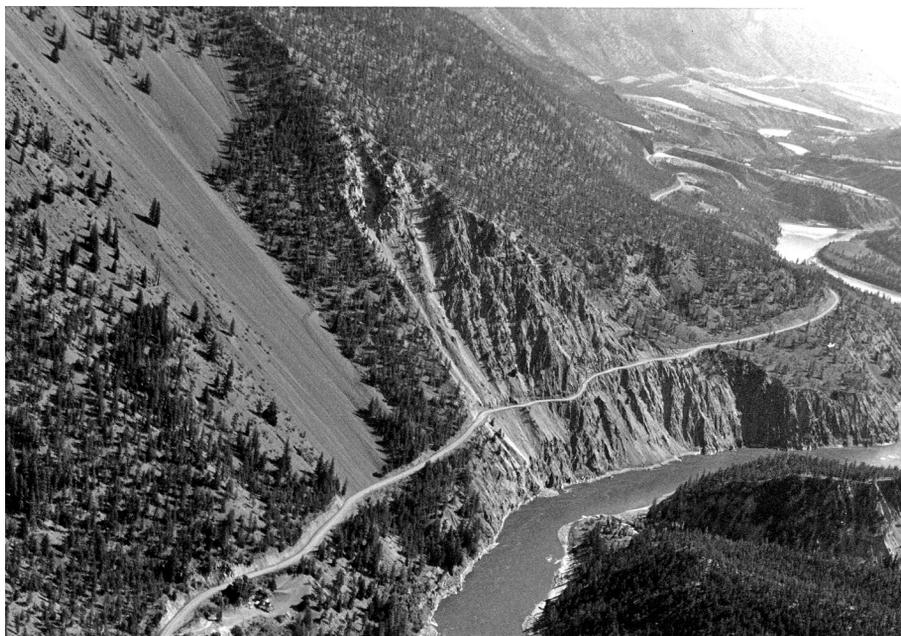


FIGURE 1.3. Landslides have periodically sent massive amounts of rock plummeting into the Fraser River in the Middle Fraser Canyon as this relatively recent rock scar above the river indicates, as well as the older one to its left, now eroded into long skree slope. These slides are located only about 15 km downstream from the town of Lillooet.

water are insufficient to account for the presence of the large villages that developed in the Lillooet region—especially the unusually large villages. In addition to Keatley Creek, large villages were located at Bridge River, McKay Creek, and several unnamed locations (see Figure 1.2). Others existed at Seton Lake, Texas Creek, Loch-nore Creek, and probably at Pavilion Creek, Fountain Creek, and Lillooet itself, but these have been destroyed by modern roads, farming, mining, and land development. The very large prehistoric villages, ranging from 30 to 119 structures, occurred about every 5–10 km along the Fraser River in the Lillooet region. In addition to shelter, wood, and water, these large communities required great amounts of food to survive the winter. Carrying 40 kilogram (kg) packs of dried fish up precipitous heights from the river to the tops of terraces would have been arduous work, and it seems unlikely that people would have packed their winter supplies any farther than absolutely necessary, at least before horses were available. Thus, large villages were probably located relatively close to major sources of food such as salmon fishing locations.

QUESTIONS

But there are other unusual aspects to the large villages in the Lillooet region, and to the Keatley Creek village in particular. Notably, these villages contain unusually large



FIGURE 1.4. *Once glaciers lay 2 km thick over these valleys. When they melted, 10,000 years ago, their debris filled the valleys with sand, gravel, and cobbles to the level represented by the terraces alongside the rivers today, such as Fountain Flats in this photograph. Later, the river began cutting through the debris left by glaciers resulting in the narrow gorges, such as this one that typifies much of the Middle Fraser Canyon.*

housepit residential structures—semi-subterranean houses with timber roofs covered with earth and sod. In British Columbia, archaeologists refer to houses in use with the roofs still standing as *pithouses*, and houses with only the pit left as *housepits*. The villages contain a wide range of house sizes, from ones barely 5 m in diameter to houses almost 22 m in diameter. It is difficult to argue that the larger sizes were for purposes of warmth. If this was so, all houses should have been large, whereas few of them were. Architectural modeling shows that larger houses were less heat efficient than smaller ones. Thus, an important question concerns why some houses were so big. This is a problem that Lewis Henry Morgan (1881) raised over a century ago, but which has never been satisfactorily resolved. The tradition of building housepits at Keatley Creek, including the large varieties, goes back to the Shuswap Horizon (3500–2400 B.P.), persists through the Plateau Horizon (2400–1200 B.P.), and into the beginning of the Kamloops Horizon (1200–200 B.P.). It may have begun even earlier, but we have not been able to expose enough of the earliest deposits at the site to determine this. The earliest deposits date to the middle Prehistoric period, 7000–3500 B.P., and contain microblades, distinctive types of small, long, thin stone flakes that occur only during this time period. At this time, people were certainly camping at Keatley Creek and may have begun to build pithouses.

In addition to the basic questions concerning why the Lillooet villages (some

might call them towns) were so large and why some of the residential structures within the villages were so big, there are many fascinating questions about Keatley Creek, some of which we will explore in the following chapters. These questions involve such topics as why dogs were domesticated in this region; just how complex the society at Keatley Creek was; what the social and economic organization was like; how access to fish and other resources was regulated; the role that trade may have played in creating inequalities; and the importance that feasting served for creating hierarchies and inequality. But there is another, more mystifying question, namely, what happened to these large villages, for it appears that all the large villages were abruptly abandoned about 1,000 years ago. There is no evidence of warfare or mass burials. What happened to cause this sudden abandonment, and where did the inhabitants go?

The Lillooet region is an ideal context for dealing with many of the basic questions archaeologists would like to answer about the past social and economic organization of complex hunter-gatherers. The region is semiarid with only 200 mm of rain per year on average; sagebrush, grasses, and small prickly pear cacti occupy most of the terraces. This aridity creates excellent preservation conditions for plant, animal, and fish remains. Moreover, the occurrence of clearly distinguishable house remains, each associated with its own refuse midden, makes it easy to examine individual household behavior over time and to compare one household to another to understand economic or other differences. In addition, there is a rich and ongoing native tradition in the region which, at a general level, derives directly from the original occupants of the prehistoric communities that built housepits. The occurrence of all these elements (good preservation, distinct household remains, and pertinent ethnographic traditions) has enabled us to infer a remarkable amount of detail about the past life at Keatley Creek on the basis of the stones, bones, and botanical remains recovered. But where does this site and this culture fit in as far as the broad issues of archaeological models and debate are concerned?

TRENDS IN CULTURAL EVOLUTION

Over the last two million years, there have been fundamental changes in cultures everywhere in the world. Contrary to those who see only random patterns in evolution (e.g., Gould, 1987; Torrence, 1989), these changes exhibit strong patterning. One of the most striking characteristics of the patterned changes over the last 30,000 years involves the *independent* emergence of complex hunter-gatherers in numerous parts of the world from a substrate of generalized hunter-gatherers. This development first occurs during the Upper Paleolithic of Europe, but subsequently occurs in a more widespread fashion on *every* inhabited continent of the globe during the Epipaleolithic, Mesolithic; Archaic, or analogous Holocene periods. The most recurrent conditions associated with the rise of complex hunter-gatherers are Mesolithic-like food extraction and storage technologies combined with rich, natural food resources. I believe it is here where the search for causality should begin and where it is possible to clearly perceive one of the fundamental relationships of resources to culture.

Objective inspection of the archaeological record clearly shows that wherever food resource characteristics have been favorable, complexity and the total use of energy have increased in a fashion broadly consistent with the views of Steward (1955) and White (1957). This is not to say that cultures evolve in a strict unilinear fashion or that they never revert back to simpler organizational forms when environmental or other factors take a downturn. Cultures are, above all, interactive and situationally responsive. What the above and following observations do indicate is that there is a pattern to cultural developments that is comprehensible and this pattern does follow a type of basic evolutionary trajectory, or a limited number of them. In short, there appears to be more to understand about cultures than the relativistic relegation of cultural similarities and differences to haphazard bumberings.

In the panoply of prehistory, complex hunter-gatherers stand at a pivotal position in the evolution of cultures. But what are complex hunter-gatherers and how do they differ from other hunter-gatherers? Complex hunter-gatherers embody the first expression of significant social and economic inequality in the archaeological and cultural record. They exhibit the first widespread social and economic competitive behavior, the first significant private ownership of resources, and the first occurrence of large, relatively permanent settlements. Simple hunter-gatherers have none of these characteristics.

When we turn to the roster of major technological and social innovations, we find the first occurrences of metalworking, pottery, domestication of plants and animals, slavery, specialist production of art, and other prestigious technologies all occur in the context of complex hunter-gatherers. Moreover, these and other characteristics of nonegalitarian communities persist into horticultural communities with little basic alteration (Testart, 1982; Price & Brown, 1985, p. 17; Shnirelman, 1992). Therefore, understanding how complex hunter-gatherers were organized and why they emerged from more egalitarian, simple hunter-gatherers should reveal much about the origins of our own present-day society, as well as a great deal about how and why cultures change in general. It is not an exaggeration to say that the emergence of complex hunter-gatherers was the single most important development in cultural evolution since the first appearance of the genus *Homo* and the hunting-gathering lifestyle over two million years earlier. The emergence of complex hunter-gatherers was truly a watershed development in human history and it is intimately linked to the dramatic expansion of exploited food resources that characterized Mesolithic-type societies.

Here, I am using the term Mesolithic in its broad technological sense. As V. Gordon Childe defined it, Neolithic refers to a type of economic and technological adaptation based on the production of food from domesticated plants and animals. Childe also defined Mesolithic in a broad sense to refer to economic and technological adaptations based on the systematic (and often intensive) exploitation of fish, mollusks, seeds, nuts, and a broad spectrum of less important other plants and animals. Boiling and storage technologies are also usually part of this adaptation.

Another term requiring some comment is *complexity*. Societies can be complex in many different ways: in language, kinship, rituals, myths, art, economics, social institutions, politics, and other aspects. When archaeologists, such as Doug Price and James Brown (1985, p. 8) use the term *complex*, they are generally referring to aspects

of these cultures that have the greatest effect on the material, or archaeological, remains left by societies. These aspects include social and economic inequalities (leading to the development of prestige items), centralization of political power (leading eventually to the construction of monumental buildings), and increased economic and political control (leading to larger, dominant settlements). Where resources support complex societies, the characteristics just mentioned usually give complex groups considerable advantages over simpler groups, especially in situations of competition and conflict. For all these advantages, complex societies also create less desirable outcomes, such as armed conflict and the impoverishment or disenfranchisement of some groups of people within their own communities. These features are much less developed among egalitarian hunter-gatherers but they characterize all complex societies, including the complex societies we live in today.

The following chapters are about one group of complex hunter-gatherers that lived on the North American Northwest Plateau from 3,500 to 1,000 years ago. The basic aim of the excavations I will describe is to understand the social and economic organization of one of the largest prehistoric communities of complex hunter-gatherers to have existed on the Northwest Plateau—the prehistoric Keatley Creek housepit village.

My primary interest in archaeology has always been to understand what life was like in the past, to discover not only the objects that people made and left behind, but also to learn why they made those objects, how people organized their lives, and how people related to their resources. I wanted to know why some groups, such as those at Keatley Creek, built unusually large houses, how they created and maintained inequalities between community members, why they developed prestige artifacts like nephrite adzes and copper pendants, and why they domesticated dogs. It is understanding the *why's* of behavior rather than the straightforward chronicling of past behavior that is of most interest to me. To understand the *why's* of behavior in past complex hunter-gatherers, it was obviously necessary to understand the constraints of the resources they had to deal with and how they used these resources to structure their society.

When I began this project, however, I was confronted with considerable skepticism from other archaeologists. In the 1960s, Processual archaeology planned to recover and explain all facets of prehistoric cultures, including their social, ideological, and economic organization. Processualists believed there were underlying, practical regularities in human behavior and choices which, given appropriate contexts, would make it possible to predict, or retrodict, at least the key developments and features of prehistoric communities. Such an ambitious interpretive program required valid theories that linked material remains to specific, identifiable types of behaviors and contexts. However, no such body of validated theories existed. There was even a protracted argument about whether hide-smoking smudge pits could be distinguished from similar pits with other functions. While considerable progress has been made in the intervening years, as we shall see, there still remain many unanswered questions concerning the precise behavior represented by archeological remains. Thus, there were few convincing or successful achievements in the realm of reconstructing or explaining past social organizations or other nontechnological aspects of culture. Post-Processualist archaeologists pointedly criticized Processualists for their failure to make

progress in this domain. Even the high-profile, early research by Deetz, Longacre, and Hill was later argued to be flawed and misleading (Stanislawski, 1973, 1974, 1978; Plog, 1980). Other successful but more modest achievements (e.g., Whallon, 1968) were overlooked in the theoretical confrontations between Processual and post-Processual archaeologists.

In criticizing Processualists, the post-Processualists adopted many almost diametrically opposed positions. Post-Processualists argued there were no underlying principles of human behavior and that cultural values and beliefs played such important roles in determining behavior that the remains of each culture could be interpreted only in terms of themselves and their cultural "context." According to post-Processualists, individuals provided an internal dynamic element within cultures by pursuing their own interests and negotiating these interests with others. Since values, ideology, and cognitive cultural traditions played such central roles in the post-Processualist scheme of things, they were committed to recovering ideology through archaeological means. When combined with their emphasis on individuals, the post-Processualists were also committed to recovering past social organization. However, in contrast to Processualists, the post-Processualists rejected any notion that theories should be or could be tested. Post-Processualists even rejected the idea that an objective reality existed, not to mention the notion that we could ever know what was real in the past. With these assumptions, it is not surprising that most of the post-Processual attempts to recover past social organization and ideology were based on examples with historical, backup documents. There have been few, if any, successful or convincing analyses of purely prehistoric settlements.

Given the barrenness of these previous approaches, the archaeological climate did not inspire confidence that attempting to recover aspects of prehistoric social and economic organization from any site would be rewarding. Moreover, there were many regional archaeologists who doubted that undisturbed living floors of housepits could be identified or isolated given the many site formation processes that could mix sediments. These potentially confounding factors included the periodic reexcavation of housepits that could mix deposits from different periods, the filtering down of roof sediments with earlier artifacts onto living floors, mixing by burrowing animals and insects, and roof collapses, to name just a few.

Nevertheless, some previous excavators in the region, such as Arnoud Stryd (1973), felt that living floors could be recovered relatively intact, and that it would be possible to reconstruct at least the basic aspects of social and economic organization of Plateau housepit sites. Clutching to the encouragement provided by individuals like Arnoud Stryd and Morley Eldridge, I formulated some procedures I hoped would efficiently and effectively recover information on the prehistoric economic and social organization at the large, winter housepit villages in the Lillooet region. I feel that the results described in the following chapters will justify the initial faith and hope in the project's success. However, before turning to the archaeological remains of Keatley Creek, it will be useful to discuss the distinctive characteristics of complex hunter-gatherers in more detail and to alert readers to controversial issues associated with them.

COMPLEX HUNTER-GATHERERS

In an excellent summary article, Jeanne Arnold (1996) has defined complex hunter-gatherers as those groups exhibiting control over others' labor beyond immediate kinship relationships. This is primarily a statement about the development of political control, although it has many ramifications in terms of economic control, resources, establishing contractual agreements, feasting, mobility, and storage. I fundamentally agree with this definition. This is also a good definition for "transegalitarian" societies in general, a term which Clark and Blake (1989) have used to classify societies between egalitarian (generalized) hunter-gatherers and politically stratified chiefdoms. Clearly, all complex hunter-gatherers are transegalitarian societies, but so are most horticultural or tribal societies.

Although the difference between "generalized," or "simple" hunter-gatherers and complex hunter-gatherers has been noted for at least a century (Grosse, 1896; see also Birdsell, 1972; Wagner, 1960), it was largely unacknowledged or implicit in archaeological and ethnological studies until the 1970s (Price & Brown, 1985). Only at this time did researchers realize the profound ramifications that the distinction between generalized and complex hunter-gatherers might have for understanding cultural evolution. In fact, there is no evidence for the existence of complex hunter-gatherers until the Upper Paleolithic in Eurasia. During the Mesolithic (and the Archaic in North America) evidence of complex hunter-gatherers becomes more frequent, especially in resource rich areas, only to be transformed or supplanted by horticultural communities within a few thousand years.

Most complex hunter-gatherers occupy a narrow window of time in overall human and cultural evolution. Ethnographically, they persisted primarily in areas that were too cold or too dry, or otherwise too unproductive for horticulture—although, as in the Lillooet region, rich aquatic resources were generally available. Following are examples of complex groups that persisted until European contact: the Northwest Coast Indians; the Northwest Plateau groups; Northwest Alaskan Eskimos, the Koniag and the Aleuts; the Calusa in Florida; the California Chumash and neighboring groups; the Ainu; many Siberian fishers-hunters; southeast Australian groups; and the Tiwi in Australia. The best-known prehistoric representatives of complex hunter-gatherers include the Natufians, coastal or riverine Mesolithic groups in Europe and Siberia, the Jomon, many riverine or coastal Archaic groups in North America and South America, and the Upper Paleolithic groups that produced great art and jewelry.

In cultural ecological terms, one of the most consistent characteristics of all these groups is that they were able to exploit relatively abundant resources. Thus, they exhibit unusually high population densities for hunter-gatherers (from 0.1 to 10 people per square kilometer—Shnirelman, 1992, p. 188), and they were at least semi-sedentary. Many groups also relied heavily on stored foods in their more sedentary locations; however, not all did (e.g., the Calusa did not store much food), just as not all horticulturalists rely on stored foods. For example, some horticulturalists in New Guinea and Amazonia simply harvest their root crop staples as they are needed.

The issue of what specific environmental or technological conditions favor the development of complex hunter-gatherers is a contentious one that I shall return to in the concluding chapters. For the time being, it is sufficient to note that complex hunter-gatherers exhibit strong evolutionary patterning in terms of the environmental conditions, the associated technology, and the timing of their appearance. This patterning cannot be explained by appealing to changes in genetics, cognition, cultural norms, social relationships, or ideology. Appeals to these causes leave unanswered questions as to why such changes did not take place during the preceding 2 million years of prehistory, or why such changes should occur independently in so many areas of the world within the same 20,000-year period, and finally, why such changes should occur so consistently only in areas of rich resources. The emergence of complex hunter-gatherers under a limited range of environmental and technological conditions within a narrow time frame provides no clearer example of the fundamental role that both technology and resources play in cultural adaptations.

In terms of the cultural ecological distinction between generalized and complex hunter-gatherers, it is evident that the limited ability of generalized hunter-gatherers to extract resources from their environment has a great effect on their social and economic organization. These limitations may be due to the scarcity of resources in some environments such as deserts, or to the fact that the available technology is incapable of extracting, or storing, resources in any abundance. This seems to have been the case for most of the Paleolithic. As a result, generalized hunter-gatherers lived in small, highly mobile bands typically comprising only 25 to 50 individuals. Population densities were also low, from 0.01–0.1 people per square kilometer (Shnirelman, 1992, p. 188).

Due to fluctuations in resources and the potential for overexploiting important staples among generalized hunter-gatherers, sharing of food and other items was mandatory while any signs of selfishness constituted grounds for exclusion from the band. Similarly, any competition over economic resources or claims to exclusive use of these resources were prohibited by the majority of the band. All food resources, as well as food brought back to camp, were essentially communal property. Under these conditions any prestige objects that might be used for aggrandizing behavior were not only unacceptable, but they also made little sense in terms of self-interest. The extra effort needed to obtain them would not have been worth it since other members of the band could easily take, or “borrow,” such objects for their own use. From an economic point of view, generalized hunter-gatherers are as close as human beings have ever been to a complete egalitarian, communal society. Each band was in essence one large family. Everything we know of the Lower and Middle Paleolithic conforms to this picture of generalized hunter-gatherers: low population densities; lack of middens due to the absence of recurring, intensive resource use; briefly occupied campsites; limited resource extraction potential; opportunistic hunting; limited or no food storage; a lack of prestige objects; and no socioeconomic differences displayed in burials or other realms.

The resources of complex hunter-gatherers were more abundant and usually more invulnerable to overexploitation due to high reproduction rates or the seasonal funneling of enormous numbers of animals from vast grazing regions into narrow migration routes. This resulted in higher human population densities in select areas as well as

larger communities that were markedly more sedentary. Associated with these developments was an entire new suite of technological innovations that made it possible to obtain, process, and store fish, grass seeds, nuts, and migratory herd animals in great abundance. This represented a new systematic and intensive use of food resources. Travel to distant resources and transport of bulk foods was probably made possible by boats, sleds, or travois. Under these conditions, changes in social and economic relations were profound.

For instance, private ownership of some important food resources developed, as well as private ownership of the means of obtaining food (such as Chumash boats, and Northwest nets, weirs, fishing platforms, and deer fences). Moreover, progressively more resources became owned as complexity increased.

Ownership of gathered, stored foods probably resulted initially from two factors. First, extra work was required to prepare foods for storage and to create good storage facilities. This extra effort probably motivated people to view the products as their own. Second, only where resources were temporarily overabundant did it make sense to put large quantities aside for storage. Given great abundances, each family should have been able to obtain their own shares of food unless they were lazy. Therefore, in places like the Northwest Plateau, each family owned their own stored foods. This is related to another characteristic of complex hunter-gatherers.

As Testart (1982, p. 526) has observed, in general, the storage of large amounts of food leads to reduced sharing. This occurs in part because sharing was a means of reducing the risk of future food shortages, and storage provided an alternate means of reducing the risk of food shortages. The lessened emphasis on sharing probably also resulted from the same factors that led to private ownership, the abundance of resources and the increased effort required to store them. Whatever the ultimate cause, in contrast to the liberal, even compulsory, sharing of food by generalized hunter-gatherers, people who asked for food under normal conditions in complex hunter-gatherer communities, such as those of the Northwest Plateau, were denigrated as “lazy moochers.” Although if food shortages were widespread those who had surpluses were expected to help those without.

Competition based on the economic production of surpluses also emerged between families, groups, and communities, with the result that some groups became rich while others became poor. Thus, social and economic hierarchies emerged, together with prestige technologies to display the greater status of wealthy and powerful individuals. These distinctions were often manifested in burial rites and grave goods, as well as extensive regional trade networks for prestige goods. Ethnographically, slavery appeared among the more complex hunter-gatherers probably as another means of displaying power and success. Why these hierarchies should have emerged under conditions of abundant resources invulnerable to overexploitation is a topic that will be addressed in chapter 8.

This is a rough composite portrait of complex hunter-gatherers drawn from cross-cultural ethnographies. Do the archaeological remains of complex hunter-gatherers support such a portrait in this basic form, and if so, what details are possible to establish from the archaeological record of sites like Keatley Creek? These are the topics

of the following chapters. Dealing with such topics is our ultimate goal, but before answering these questions, it is necessary to address two other areas for our investigation to proceed on a firm footing. First, it will be useful to become familiar with the native cultures of the area—the descendants of the prehistoric residents of Keatley Creek. Second, it is necessary to determine what kinds of deposits are actually present at Keatley Creek and to what extent they have been disturbed or modified. In brief, we must identify the site formation processes that created the soils and the cultural debris at the site.