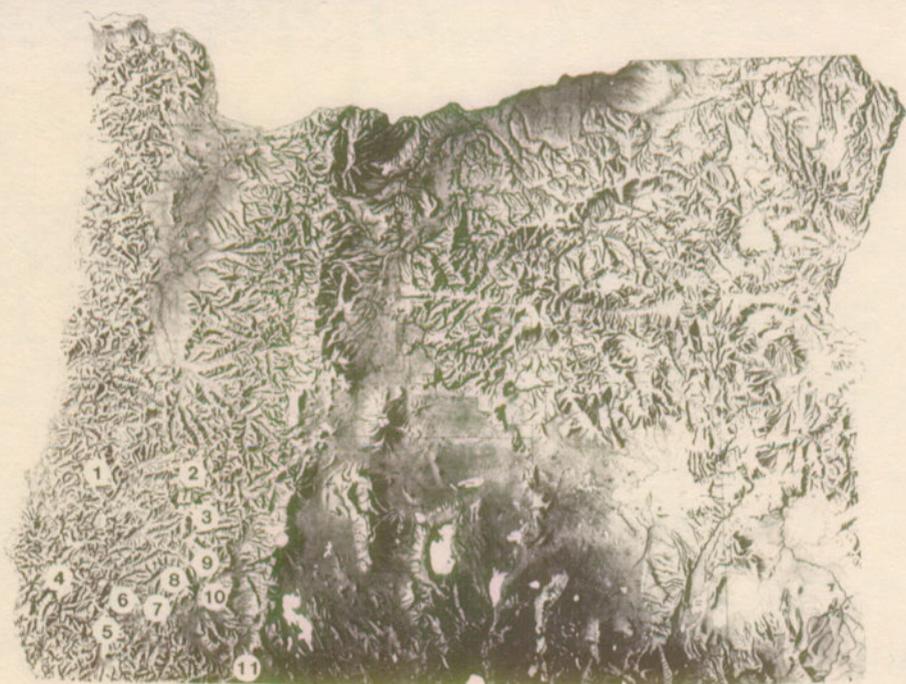


Chapter 6

Southwestern Mountains

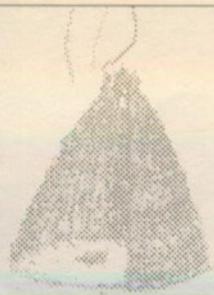
The natives of interior southwestern Oregon were a mountain people, relatively few in number and isolated by the ruggedness of their country into many scattered bands (Figure 6.1). The Shasta, a Hokan-speaking group, extended from the middle Rogue River southward to the Klamath River in California. Speakers of Penutian languages included the Lowland Takelma of the upper Illinois and middle Rogue River valleys, the Upland Takelma of the upper Rogue, and the Cow Creek Umpqua and Yoncalla of the Umpqua Basin. Speakers of Athabaskan languages occupied the western Klamath Mountains, their range extending in from the coast to include the Upper Umpqua and Upper Coquille valleys as well. Islands of Athabaskan-speakers also lived in the Medford-Grants Pass area, surrounded by speakers of Penutian languages. Athabaskan groups included, from north to south, the Upper Umpqua, Upper Coquille, Kwatami, Tututni, Shasta Costa, Chetco, Tolowa, Galice, and Applegate bands. The lifeways of these diverse peoples shared a great deal in common. They also displayed definite Californian affinities, no doubt a reflection of both geographical proximity and environmental similarity.



Key to Sites

- 1 - Standley Site
- 2 - North Umpqua Narrows, Limpy Rock Shelter
- 3 - South Umpqua Falls, Times Square Rockshelter, Hughes 1 Rockshelter
- 4 - Marial, Tiegetintin, Blossom Bar
- 5 - Applegate River
- 6 - Ritsch, Marthaller
- 7 - Gold Hill, Saltgaver
- 8 - Far Hills Ranch
- 9 - Elk Creek
- 10 - Salt Creek
- 11 - Border Village

Figure 6.1 Map showing site locations the Southwestern Mountains region of Oregon.



The diverse languages spoken in the Southwestern Mountains show that the native peoples, despite their prominent cultural similarities, have very distinct ancestries. The Shasta speak a Hokan language, descended from an ancient Californian speech community that goes back perhaps 7000 to 10,000 years. The Takelma, Cow Creek Umpqua, and Yoncalla, whose clearly related languages all belong to the Penutian phylum, are the linguistic descendants of a speech community that became widespread in Oregon 5000 or more years ago. A much later migration was that of the Athabaskans, who speak closely related languages of the Na-Dene phylum, with their main linguistic relatives centered a thousand miles away in western Canada and Alaska. The Athabaskans probably entered the region between about 1500 and 1000 years ago (Shipley 1978; Moratto 1984: 530-574).

Ethnographic Life Way

Firsthand information on the traditional lifeways of the Southwestern Mountains is quite scanty. Yet it is invaluable, both in its own right and as a guide to interpreting the archaeological record of prehistoric times. Three recent syntheses bring together the available data from early ethnohistoric (LaLande 1990) and later ethnographic (Gray 1987) as well as archaeological (Hannon and Olmo 1990) sources. These volumes are highly recommended as indispensable to a fuller understanding of the region's native cultures.

Broadly, the people of the Southwestern Mountains were all hunter-fisher-gatherers who made their living from a wide variety of natural resources to be found in the narrow canyons and small interior valleys they occupied. They stayed in small settlements of a few houses each, and these central settlements, occupied for the greater part of the year, served as home bases from which people ranged out over considerable distances to exploit the surrounding environment.

The main villages were generally located on alluvial terraces of the major streams. A surviving illustration of an Umpqua house of the 1850s shows a large, substantial plank structure with gabled roof, apparently semisubterranean, very much like the plank houses known up and down the Northwest Coast and along the Lower Columbia. Takelma and Shasta houses were of similar construction, some with plank covering and others, of poorer folk, sheathed with slabs of bark.

Major sources of food were salmon, trout, suckers, crayfish, and freshwater mussels from the streams; deer, elk, bear, squirrels, rabbits, acorns, pine

nuts, berries, and other items from the savannahs and forests; and camas bulbs, sunflower seeds, and tarweed seeds from the grasslands. These of course are but a few prominent examples among the many species that were depended upon. Winter villages were all but abandoned in early spring, as people scattered widely into small hunting-gathering camps. Camas roots were dug in early spring and summer, baked in earth ovens, and stored against the coming winter. Acorns were gathered in early fall as another winter staple. For eating they were pulverized in a hopper mortar, and the meal leached in water to remove its bitterness. It could then be boiled as a gruel, or baked in leaf-wrapped cakes.

The salmon harvest was a major event in summer and early fall, when fish abounded in the rivers leading up from the Pacific. Fish weirs built across streams constricted the passage of salmon, guiding them through a narrow gateway where they might be netted or speared. Basketry traps were also used in conjunction with these weirs. Fish were elsewhere taken with hook and line.

With winter approaching, people regrouped in their permanent villages. They occupied the cold season with such food-getting efforts as were profitable, and with domestic chores. Hunting, and fishing for riverine species, went on all year, but were perhaps most important in fall and winter. They were about the only economic pursuits left after the plant-gathering and salmon seasons had ended. Deer were stalked by hunters disguised with deer heads and skins, or driven by men with dogs, or caught in deep winter snow. Some groups took deer and elk in deep pit traps dug in game trails. These pits contained upright sharpened stakes, to impale and dispatch the unlucky creatures falling onto them. Deer and elk were also taken with rope snares, hung over game trails in appropriate spots.

Villages were made up of closely related families, and sociopolitical organization was simple. Each village was an autonomous unit bound to no larger polity, but certain purposeful and short-lived alliance arrangements did exist. Each settlement was led by one or more respected elders, who enjoyed a social standing and level of influence above that of ordinary folk. A sense of territoriality was strongly felt by some groups, especially the Athabaskan-speakers, and skirmishes were sometimes fought over trespasses. Despite these attitudes, there were nevertheless occasions when larger groups came together for ceremonial events and at especially productive fishing or gathering localities. Further, since it was the rule for people to seek mates outside the community they were born in, families were linked to others in all directions by ties of kinship and marriage.

The degree to which people maintained definite intergroup boundaries seems to have varied according to circumstances. Societies maintained home settlements, but localities where different groups converged to hunt, gather, or fish at certain seasons are also well documented. It is probably accurate to conclude that each group had both a heartland where it was the dominant presence, and a hinterland that it shared in common with neighboring peoples. Such patterns are commonplace among hunting-gathering people generally, especially when population densities are relatively low.

Many elements of the traditional lifeway can be seen archaeologically. Earlier cultures were not, however, identical with those known from historic times. For example, the linguistic evidence just discussed clearly shows that the Southwestern Mountains received migrations of people over a long period, and cultural changes must have accompanied those migrations. There was also climatic change and adaptation to it, and there was no doubt population growth, and social adjustments stemming from it. The ethnographic lifeway thus provides a model for interpretive analysis, but much is left to be learned from the archaeological data.

Landscape and Natural Resources

Interior southwestern Oregon includes a variety of terrains and distinctive environmental types. The Klamath Mountains, reaching westward to the Pacific coast and southward into California, are formed of geologically ancient and contorted precambrian rocks. On the north they adjoin the Coast Range, and on the east they face the western Cascades. The region includes a few small areas of relatively low lying, open country, along the north and south forks of the Umpqua River near Roseburg, and the Upper Rogue and Illinois rivers in the vicinity of Grants Pass and Medford. Elsewhere, steep mountains, sharp ridges, and deep, narrow canyons are characteristic.

The Coast Range and the seaward side of the Klamath Mountains are generally covered by western hemlock and Douglas-fir forest. Additionally, sitka spruce grows in the coastal fog belt, western red cedar is common in moist settings, and ponderosa and sugar pine occur on drier sites. In the Cascades, the higher elevations are covered with forests of Pacific silver fir, Shasta red fir, and grand fir. These montane evergreen forests ring a compact interior zone of mixed coniferous and broadleaf forest that covers the intermediate and lower elevations. This forest, with intermingled stands of Douglas-fir, broadleaf evergreen tan oak, and madrone, is similar to the dry, open Californian woodlands farther south.

At the center of this zone, in the interior valleys around Roseburg, Medford, and Grants Pass, there occurs yet another kind of vegetational mosaic. This assemblage, adapted to the hot, dry summers of the area, includes varying mixtures of Douglas-fir, ponderosa pine, Oregon white oak, California black oak, and manzanita. Again the greatest similarity is with Californian rather than Oregonian vegetation patterns (Franklin and Dyrness 1973).

The mammalian fauna of southwestern Oregon includes black bear, Roosevelt elk, mule deer, rabbits, squirrels, and many smaller rodents, to name only a few of the species known historically to have been important in the traditional diet. Characteristic birds included grouse, woodpecker, band-tailed pigeon, and a host of small passerine species. Salmon and steelhead ran in the Umpqua, Coquille, Rogue, Illinois, and Klamath rivers in considerable numbers, though not of course in the abundance known from the Columbia River. Trout were year-round residents in these rivers as well, and in many smaller streams of the region.

Time and Environmental Change

Temperature and moisture set the conditions of existence for each kind of plant, and the fact that southwestern Oregon is a transitional zone between moist coast and dry interior, warm south and cool north, is reflected in a broad range of species. Salal, rhododendron, and evergreen huckleberry are primarily coastal species that are found in the southwestern Oregon interior as well. Sagebrush, antelope bitter brush, mountain mahogany, western juniper, and other species are plants common to the Great Basin that have found a foothold in southwestern Oregon. Plants of northern affinities are subalpine fir and Engelmann spruce, and plants of southern habitats include digger pine, buckbrush, manzanita, and three-leaf sumac. This present-day flora offers clues to the climatic history of the region, and makes it clear that the same postglacial fluctuations in warmth and moisture as were mentioned in previous chapters affected southwestern Oregon as well (Todt 1990).

The summer-dry Californian climate of southwestern Oregon was established in pre-human times. Drought-adapted species moved up from the south during warm intervals. Cooler and drier intervals allowed northern and Great Basin species to extend into the area. With postglacial warming, those species adapted to warmer and drier conditions were able to expand, giving prominence to the oak, manzanita, and buckbrush that characterize the valleys of southwestern Oregon today. At higher elevations, and in places with distinct microclimates, coastal,

northern, and Great Basin species persisted. This climatic and vegetational history has made the region today a mosaic of great biotic diversity, with one of the most varied floras in North America (Todd 1990: 71).

During the mid-postglacial period of increased warmth and dryness, about 7000 to 4500 years ago, oak savannah probably dominated the lower and middle elevations of the mountains, while grassland and brushy chaparral species occupied the valley floors and lower foothills. Coniferous species were forced upward to higher, cooler elevations. The last 4500 years have brought somewhat cooler, moister conditions, and some re-expansion of coniferous woodlands at the expense of oak and chaparral (Detling 1968).

Systematic research which might reveal effects of environmental change on the native lifeway is just beginning in southwestern Oregon. It has been speculated that, because grasslands with oak savannah along streams are rich in edible grass seeds and acorns, the mid-postglacial expansion of this vegetation may have greatly benefited the prehistoric people. It has been further speculated that southwestern Oregon natives may purposefully have set fires, as did historic people in the Willamette Valley and central California, to foster rapid regrowth of grasses or keep meadows from being taken over by brush (Lewis 1973, 1990). Systematic paleoenvironmental research, carried out with reference to questions of human adaptation, is greatly needed in the Southwestern Mountains region.

Cultural Chronology and Time Markers

The earliest period of human occupation in the Southwestern Mountains, as elsewhere in Oregon, is attested by Clovis fluted points. One has been reported from the Umpqua river area near Roseburg (Hanes 1978a). Another was found in the vicinity of upper Butte Creek, a tributary of the Rogue River (Dyck 1982; LaLande and Fagan 1982), and another near the California border (Deich 1977). Four cultural phases succeed the pioneer Clovis occupation, the first three spanning the time when the atlatl and dart were in use, and the last the time when the bow and arrow were introduced (Pettigrew and Lebow 1987; Nilsson and Kelly 1991).

The Applegate Phase, 10,500-8500 years ago, is recognized by large broad-stemmed points reminiscent of the early Windust type from the Plateau, and broad-based, short pentagonal points of locally distinctive form. This phase is defined on the basis of very limited evidence, and needs further research to clarify the diagnostic types and establish its age by ^{14}C dating.

The Marial Phase, 8500-4500 years ago, is marked most prominently by willow-leaf bipoints. These are quite large in early times, but become progressively smaller throughout the phase. In the Plateau they are called Cascade points. Broad-necked points with stems that broaden toward the base are also characteristic, as are large side-notched, straight-based points. These too have analogues in the Plateau, the first in the Rabbit Island stemmed type, the second in the Northern Side-notched type.

The Coquille Phase, 4500-2200 years ago, is marked by roughly diamond-shaped points that are short and broad, with barbs and a broad tapering stem. These locally distinctive points have been given the name Coquille Series Broad-necked. Also characteristic are medium and small willow-leaf points. This phase is not yet well-defined and dated, and it may begin and persist somewhat later than specified here.

The Rogue Phase, 2200-150 years ago, marks the arrival of the bow and arrow with a range of small, narrow-necked points. The beginning date of this phase is somewhat problematical, and should perhaps be a few hundred years later. The early end of the phase is indicated by Coquille Series Narrow-necked points, small willow-leaf points, and small triangular stemmed points given the name Elk Creek Square barbed; these latter are reminiscent of the Pin Stem points of the Columbia River, and the Rosegate type of the Great Basin. The later part of the phase is dominated by highly distinctive Gunther Island (or Rogue River) points. These are delicately made corner-notched and base-notched specimens which often have long, drooping asymmetrical barbs. Also present at this time are small concave-base triangular and side-notched points, the latter reminiscent of the Desert Side-notched type of the Great Basin.

Applegate River Sites

Archaeological studies along the Applegate River, just north of the Oregon-California border, established the outlines of a cultural sequence that may reach back 8000 to 10,000 years (Brauner 1983). At Site JA53a, on a high terrace overlooking the river, excavation of two broad 30-foot square areas recovered over 80 large spearpoints of apparently early type (Figure 6.2). The specimens have triangular blades and broad stems, and are highly similar to the Windust type ¹⁴C-dated in the Plateau region to the period 10,000-8000 years ago. Edge-faceted cobbles believed to be hide-working tools, flaked stone scrapers, and cutting tools also occurred. Some peculiar circular discs, an inch or so across and flaked entirely

around their edges, are enigmatic. Traces of crushed and decomposed bone were found in association with the artifacts, and it seems apparent that the site was a hunting and butchering station. No structural remains were identified, but the distribution of natural stones across the archaeologically exposed area suggested that the site occupants may have deliberately cleared work spaces by shifting and piling the rocks which littered the area.

Site JA53b, on the next lowest terrace of the river, yielded a number of serrated lanceolate points comparable to the Cascade type of the Plateau. Site JA52, ¹⁴C-dated between 8000 and 4000 BP, produced similar specimens. Stone bowl mortars and shaped pestles were associated with these points, as were hopper mortar bases and mano and milling slab fragments. The grinding tools suggest that processing of plant foods such as camas roots, acorns, and grass seeds was carried out in the locality. Hunting persisted also, as indicated by the projectile points (Figure 6.3).

The Sinn's Bar Site, located in the valley bottom, represents the later end of the Applegate sequence. The basal levels of the site extended to a depth of 10 feet. They produced large serrated lanceolate points like those found on the higher river terrace, and large, relatively crude side-notched points as well. In upper levels, leaf-shaped points of the Gold Hill type occurred, along with a variety of small, notched points (Figure 6.4). Pithouse remains were encountered in the upper levels of the site, but details of their structure remain unknown. A single point of the late prehistoric Gunther Barbed type was found, in a contact period pithouse that culminated the site sequence. Other characteristic tools of the region included flaked stone knives, drills, and scrapers (Figures 6.5, 6.6).

Marial Site

The Marial Site, on the interior Rogue River about 50 miles inland from the Pacific coast, has produced a sequence of human occupation that spans most of postglacial time (Griffin 1983; Ross 1987; Schreindorfer 1985). Situated where a tributary stream joins the main river, on a terrace that overlooks quiet water between major rapids above and below, the site commands a good salmon and steelhead fishing locality. Additional food species close at hand include freshwater mussels, otter, and beaver in the river; oaks, pines, and manzanita on the flanking hills; and deer, elk, bear, raccoon, rabbit, and squirrel in the woods. The richness of its surrounding biota suggests that Marial would be a highly desirable residential location. Although limited test excavations have not revealed

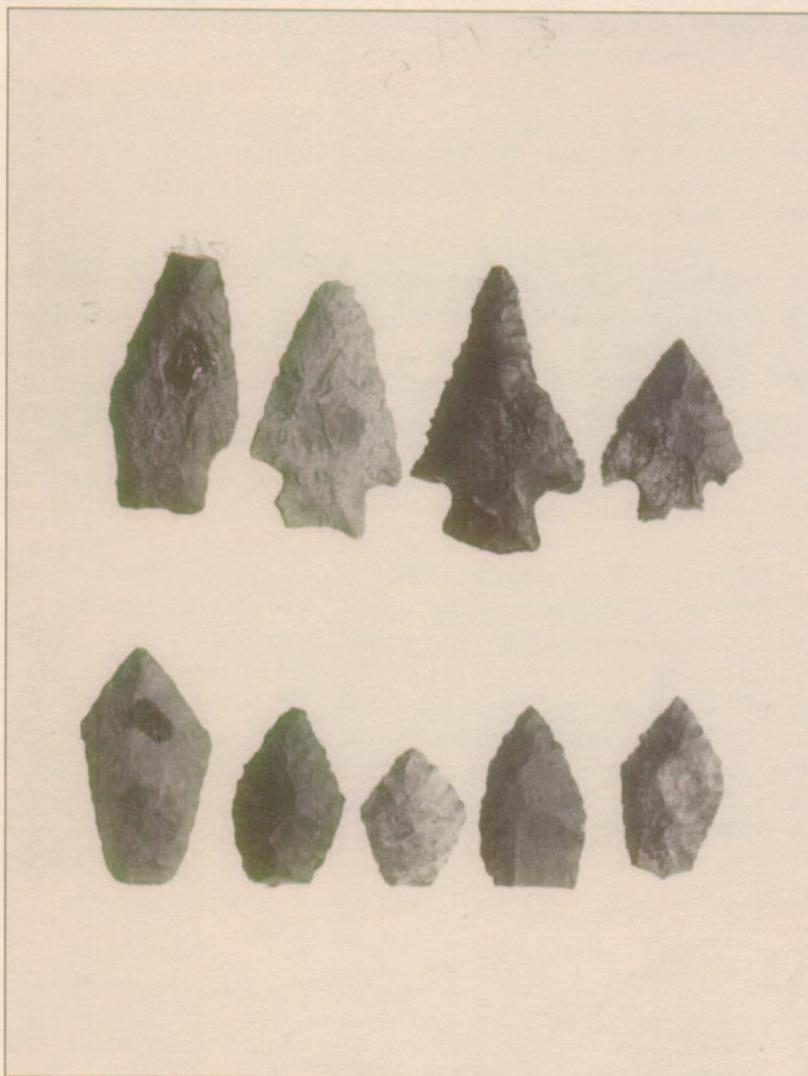


Figure 6.2 Early projectile points from Site JA53, Rogue-Applegate area.

any housepits at the site, the work has been too limited to rule out their presence.

Stratigraphic excavations at Marial sounded a deposit of river silt and loam nearly 15 feet deep from surface to underlying gravels. Flaked stone artifacts, fire-cracked rocks, and bone fragments were found throughout. Seven cultural components have been recognized. Six of these occurred in one layer-cake sequence, with cultural zones separated from one

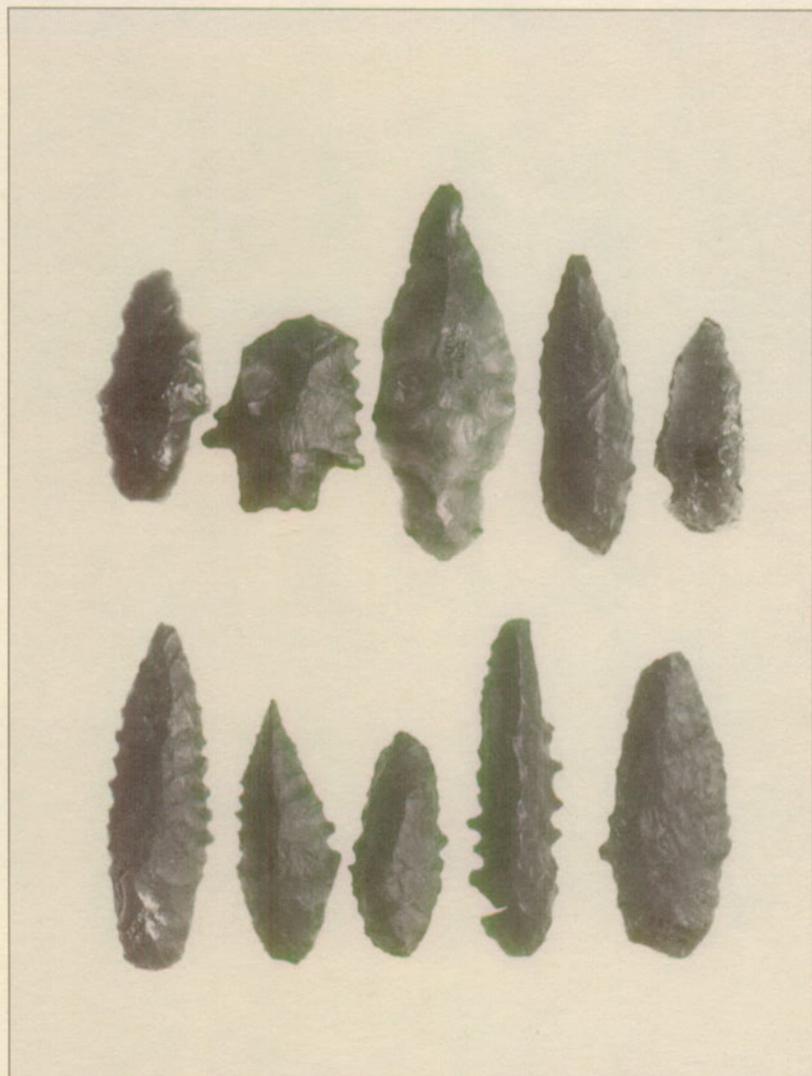


Figure 6.3 Projectile points of the Middle period from the Rogue-Applegate Area.

another by sandy river deposits containing few artifacts. The latest occupation was found in a different part of the site, on the terrace edge near the river.

The lowermost occupation, in Cultural Zone 6, has a radiocarbon date of 8560 BP. From lower Cultural Zone 3 came a ^{14}C date of 6845 BP; slightly higher in Zone 3, a date of 5850 BP was obtained on charcoal found near a tight cluster of fire-cracked river cobbles. Higher still, a date of 4060 BP

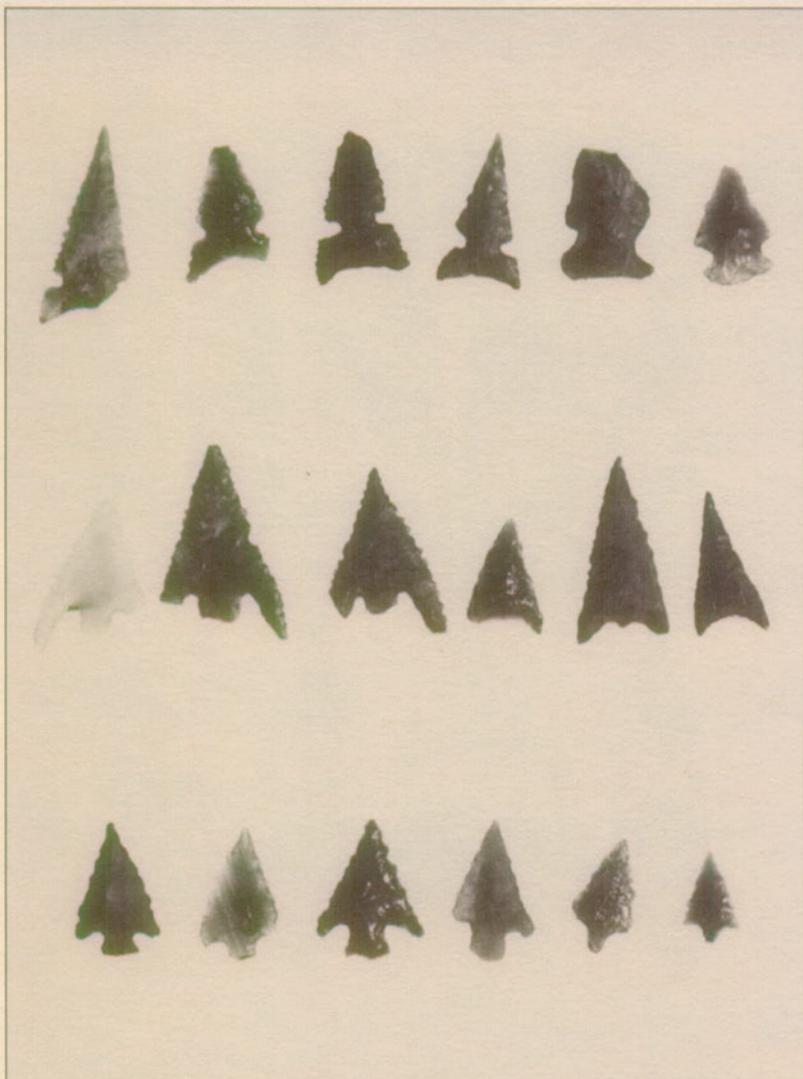


Figure 6.4 Projectile points of the Late period from the Rogue-Applegate area. Top two rows, historic period; bottom row, protohistoric.

came from Zone 2, and a date of 2810 BP from Zone 1. The latest component, found in a separate location, yielded a ^{14}C date of 710 BP (Figure 6.7).

Over 4000 pieces of bone, most of them finely fragmented and thus not identifiable to species, were recovered from the Marial excavations. Three identifiable salmon vertebrae came from levels at 48 inches, 24-25 inches, and 12-16 inches. A cougar bone was found at a depth of 55 inches.



Figure 6.5 Stone tools from the Rogue-Applegate area. Left row, protohistoric.



Figure 6.6 Grooved stone object from site JA52, Rogue-Applegate area.

Carbonized fragments of hazelnut hulls were found at depths of 13 feet, 10 feet, and 3 feet. All these items appeared in levels dated between 5850 and 2810 BP. Many fragments of deer-sized bone were found throughout the deposits. The excavators suggest that the relative abundance of pulverized bone may give evidence that the practice of crushing and boiling bones for soup, known ethnographically from many Native American groups, was practiced at Marial from early times.

Hunting practices are indicated by a series of projectile points. Earliest were relatively large atlatl dart heads. These first appeared in the lowest levels of the site, dated before 8560 BP. They were succeeded shortly before 2810 BP by smaller, lighter arrowheads, which continued to the end of the occupation (Figure 6.7). Choppers, flakes, and scrapers that were probably used to break up bones, slice through meat and ligaments, and clean hides, continued throughout the sequence. Stone pestles shaped by grinding, along with fragments of milling stones, give evidence of plant food processing. The historic Takelma people of the Rogue River used such pestles in the shelling and processing of hazelnuts and acorns, among other things.

The making of stone tools is indicated throughout the cultural sequence by pockets where hundreds of small waste flakes occurred. In several cases these were found along with battered hammerstones that were no doubt used to break up nodules of raw lithic material. Basalt and chert occur naturally among the cobbles of the adjacent riverbed, and in the site itself were found both worked and unworked nodules of these common toolstones. Flakes retaining traces of the rough cortex of stream-rolled cobbles were commonplace as well.

Obsidian, like basalt and chert, was used for tool-making throughout the period of occupation, but it was much scarcer. The nearest obsidian outcrops are more than 100 miles to the east, and all of this toolstone reaching Marial had to be imported. Its presence there, even before 8560 BP, attests the antiquity of far-flung exchange relationships—or long-distance travel—within the region as a whole. Obsidian quite clearly arrived in the form of finished or at least roughly finished artifacts. The excavations did not yield any flakes that retained traces of the weathered cortex of raw obsidian nodules. Manifestly, obsidian was very precious so far from its geological sources. Artifacts made of it were resharpened and reworked when dulled or broken to a much greater extent than were artifacts made of other kinds of stone. This is shown by the disproportionate abundance of tiny flakes of obsidian at the site, as compared to fewer equally small flakes of chert or basalt.

Tlegetlinton and Blossom Bar

Two additional sites that together span much the same time range as Marial are Tlegetlinton and Blossom Bar. Tlegetlinton is located at the juncture where the Illinois River flows into the Rogue, about 30 miles inland from the Pacific coast. In early historic times Tlegetlinton was occupied by the Shasta Costa band of Athabaskans. The probable site of

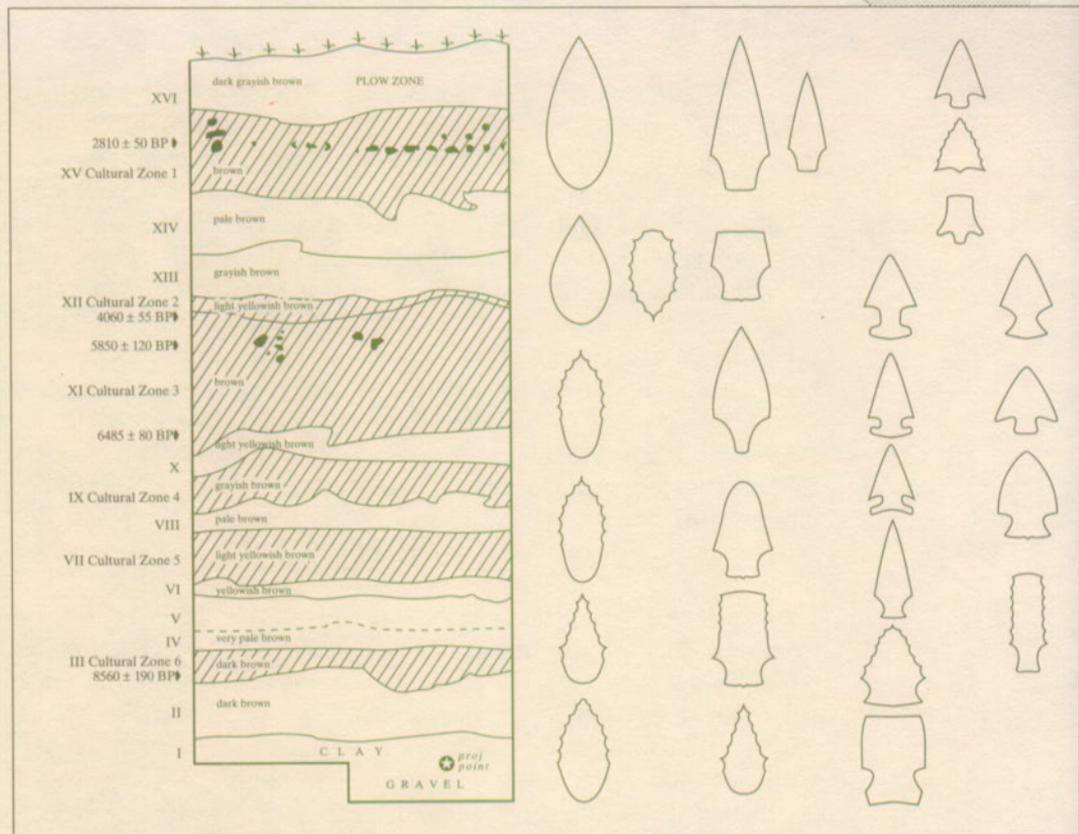


Figure 6.7 Idealized stratigraphic sequence at Marial, showing depositional layers, occupation zones, radiocarbon dates, and point type distributions. Based on Ross (1987: Figures 4-7).

this recent occupation, archaeologically recorded in 1935, was eroded away by a major flood in 1964. Subsequent excavations on a terrace higher above the river produced large and small lanceolate projectile points comparable to those from Marial, suggesting that this earlier part of the Tlegetliten site probably dated between about 7000 and 3000 BP.

The occupation at Blossom Bar, on the Rogue River between Tlegetliten and Marial, was marked by small, basally-notched arrowpoints of Gunther Barbed type. These are comparable to those dated about 710 BP at Marial. Other sites, not yet investigated, are also known from this stretch of the Rogue River. There is little doubt that the area was a significant theater of human occupation throughout prehistoric times (Griffin and Schreindorfer 1984).

Gold Hill

The Applegate and Marial sequences lead up to what was for long the only archaeologically reported culture of interior southwestern Oregon, that of Gold Hill. This first major prehistoric find in the region was made at a very rich site on a shoreline terrace of the Rogue River, opposite the small town of Gold Hill. The discovery was made by a landowner in the process of levelling a knoll in a cultivated field. The levelling proceeded by first plowing deeply to break up the soil, and then dragging the loosened earth to an adjacent low area using a horse-drawn scraper. When the knoll had been reduced by some three feet in this way, the plow began to bring up human remains and artifacts in remarkable quantity. Dr. L. S. Cressman, of the University of Oregon, was called in; he subsequently directed salvage operations at the site in 1930, 1931, and 1932. As before, earth was initially removed by plowing and scraping, but the work shifted to hand troweling and screening when signs of occupation were discovered (Cressman 1933a, 1933b).

The area investigated in this way measured about 120 feet across, and the maximum depth reached by excavation was seven feet. Some 39 human burials were uncovered, mostly in the southern part of the mound. Approximately 30 areas of concentrated occupation were recorded, mostly in the northern part of the mound. The human remains had all been placed in a flexed position, in small pits. The areas of concentrated occupation were roughly circular or ovate in plan, and varied from four feet to 15-20 feet across. They consisted of fire hearths and associated fire-cracked stones, ash, charcoal, artifacts, and bone and antler fragments. No house floors or house pits were identified, but given the plow-and-scraper method of excavation, it would be surprising if any such features were preserved. Indeed, given the abundance and variety of artifacts and human remains from the site, it seems quite clear that it must have been an important residential location. The predominant occurrence of occupational debris at the north end of the site, and burials at the south end, also suggests a village/cemetery situation.

No clear-cut soil stratification was documented, but the excavator reported his definite impression that cultural remains were roughly concentrated into three levels or zones, each two to three feet in thickness. This depth of deposit implies that the site was occupied over a considerable period of time, an impression borne out by the typology of the recovered projectile points (Figure 6.8). Many medium-sized points of willow-leaf shape, since dubbed Gold Hill points, are very similar to specimens ¹⁴C-dated at Marial between about 4500 and 2200 BP.

At the other end of the time scale, many small, very finely made arrowpoints of the Gunther Barbed type were found. These, as noted above, are ^{14}C -dated within the last 1000 years on the lower Klamath River. The complete absence of Euro-American goods at Gold Hill implies that the site was abandoned before historic contact. Thus a reasonable estimate would place the main occupation between about 3000 BP and late prehistoric times, though there is some possibility that it may have begun earlier. The absence of medium-sized corner-notched and side-notched points, which seem in the Applegate chronology to represent a period intermediate between the time of the Gold Hill point and Gunther types, suggests that there may have been a significant hiatus between earlier and later periods of occupation at Gold Hill. Perhaps the divisions sensed in the stratification of the site are related to breaks in the occupational sequence.

The projectile points already mentioned would seem to represent the hunting component of the local economy. A number of ground stone pestles, bowl mortars, and hopper mortar bases represent the processing of vegetal foods, such as camas roots and acorns (Figure 6.9). Some of the pestles were very finely made, carved with raised bosses on either side of the handgrip area. Moore (1973), a long-time local resident and collector, reports a large number of "heavy, slightly concave metates" from the site that actually may have been hopper mortar bases rather than grinding slabs, as the term "metate" implies. This is not certain; however, he also illustrates (Moore 1973; Figure 169) several flat, smooth hand-sized stones, and two highly distinctive two-horned mullers of the well-known Klamath type, which correspond to the manos or hand stones commonly used to crush seeds on the metate (the occurrence of these highly diagnostic horned mullers so far from historic Klamath territory is striking).

Manufacturing tools reported from the site are limited, but included numerous flaked stone scrapers and pounding/rubbing stones, as well as many well-made flaked stone drills. It is likely that other tools of more casual form existed, such as graters and choppers, but were not differentiated from the stone detritus of the excavations.

The most impressive finds made at the site were the human burials and their contents. As noted earlier, 39 pit graves were recorded from Gold Hill. A disastrous flood on the Rogue River, which devastated the site in 1964, revealed more that were previously unknown—very fleetingly, as the deposits were calved off and carried down the river. A number of the buried individuals were accompanied by exquisitely shaped obsidian blades, 8 to 12 inches long, evenly flaked over both surfaces, and slightly

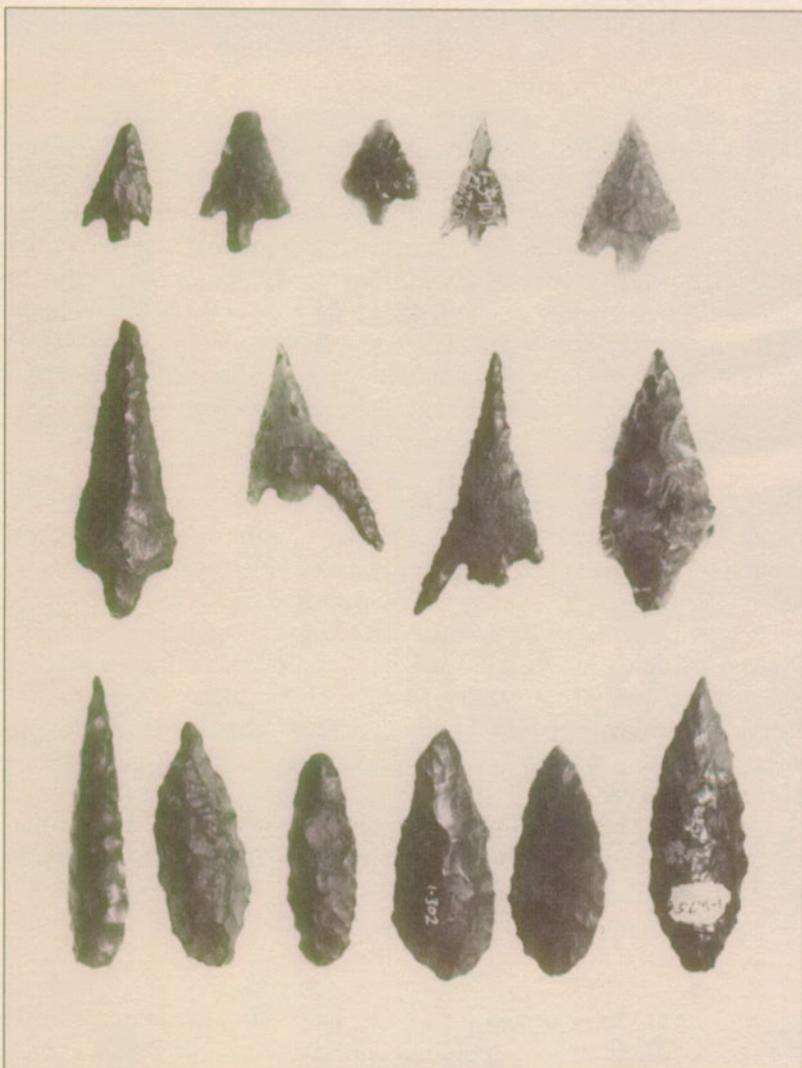


Figure 6.8 Projectile points from the Gold Hill Site. Top two rows, Late period; bottom row, Early period.

constricted at the midpoint as if for a handgrip (Figure 6.10). In total some 22 such blades have been reported from Gold Hill, and it is likely that others were recovered by collectors, who published no record of their plunder. The blades occurred singly or in pairs in most of the graves which possessed them, but one interment held five obsidian blades and one comparable specimen made of slate. Another grave held a quantity of beads made from the seed of the digger pine, several hundred beads of the marine *Olivella* shell, and several pieces of *Glycymeris* and abalone



Figure 6.9 Stone bowl or mortar from the Gold Hill Site.

shell. Yet another yielded seven tubular smoking pipes of serpentine or greenstone schist, finely shaped and smoothed, and varying between four and eight inches in length (Figures 6.11, 6.12).

The large obsidian blades are of a type traditionally used by Hupa, Karuk, Wiyot, and Yurok people of northern California in the White Deerskin Dance. The use of such blades by the people of Gold Hill suggests that ancient Oregon groups belonged to the same far-reaching intertribal

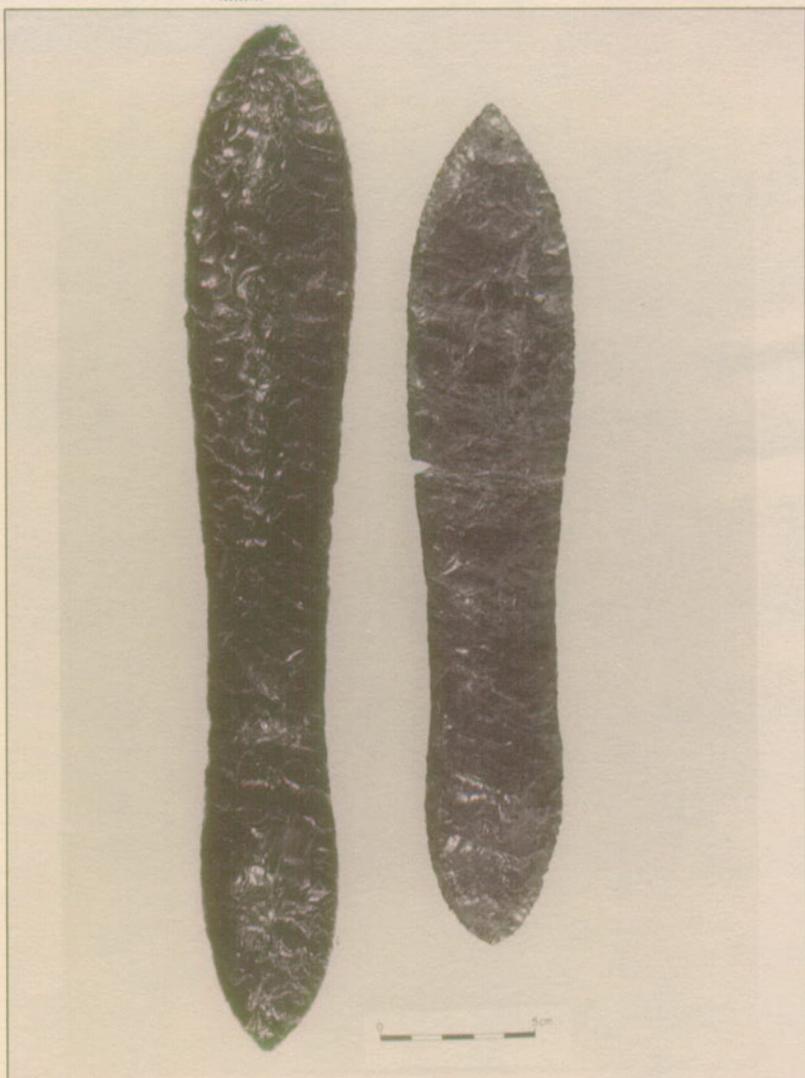


Figure 6.10 Obsidian blades from the Gold Hill Site (courtesy of Richard Hughes).

ceremonial network. The White Deerskin Dance was an important ritual in which highly valued family treasures and heirlooms were displayed, among them very large obsidian blades. In addition to being important ceremonies that expressed the elevated social status of community leaders, these dances brought together partners from different communities, even different tribes. They functioned as major occasions for trade and social interaction over a broad area. Still practiced in historic times, the White Deerskin Dance clearly has prehistoric roots. This was

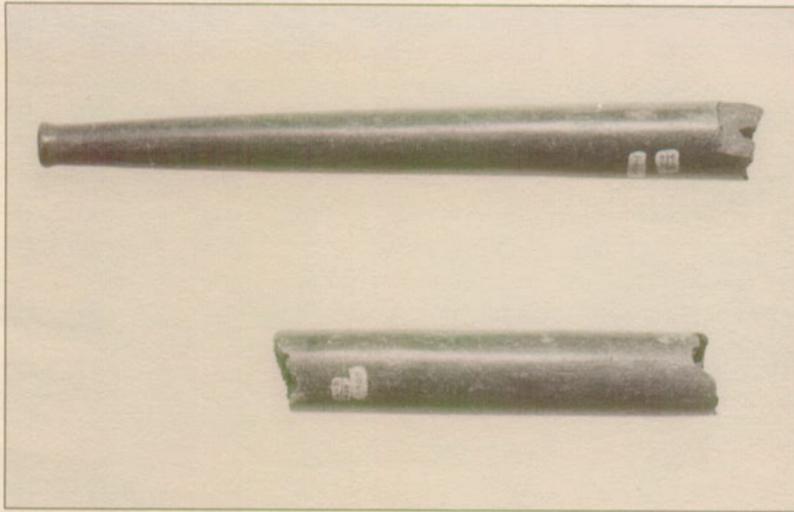


Figure 6.11 Tubular steatite pipes from the Gold Hill Site.



Figure 6.12 Bone whistle or hair ornament (?) from the Gold Hill Site.

first shown by the finding of large obsidian dance blades in archaeological context at Gunther Island, near Eureka on the northern California coast (Loud 1918, Hughes 1978), and subsequently by the Gold Hill artifacts. The beautifully made stone smoking pipes from Gold Hill also have their greatest similarities among northern California specimens. These two classes of objects, along with the distinctive Gunther Barbed projectile points mentioned previously, strongly indicate the northern California cultural connections of the Gold Hill inhabitants.

Geochemical analysis of the large obsidian blades from Gold Hill has matched their trace element composition to that of distant obsidian flows east of the Cascades (Hughes 1990). Six different sources are represented, the farthest away being Glass Butte in east-central Oregon, some 175 miles from Gold Hill. These facts show that the people of Gold Hill maintained significant relationships in another direction as well, into the territories of Klamath and Northern Great Basin groups. Not only the large size and exquisite workmanship of the obsidian blades made them precious, but also the far places from which they came, and the social ties and travel that obtaining them required.

Saltsgaver Site

Further insights into the local lifeway are afforded by sites much closer at hand. Quite near Gold Hill, in the same little section of the Rogue River valley, is the Saltsgaver Site. Here over 100 roasting pits or earth ovens were exposed by the tilling of a field (Prouty 1989). Fires made in the pits had baked the surrounding earth red and brick-hard, rendering the pit rims clearly visible when agricultural work disturbed the surface soil. Excavation of several pits revealed charcoal and fire-cracked rocks. From one pit, 14C-dated at 5300 BP, charred nut shells were recovered. Though the identification is not certain, they were probably acorn hulls. A charred specimen from another pit is probably a camas bulb. Oak trees and camas lilies are now abundant in the general area of the site, and may have been more common before the area was converted to farmland. Earth ovens of this sort were used down into historic times by native people to bake camas and other bulbs for winter storage. The Saltsgaver Site seems to parallel Gold Hill closely in age, as shown by the occurrence there of the same early willow-leaf and later Gunther Island projectile point types as found at Gold Hill. The many earth ovens at Saltsgaver give evidence of a major emphasis on plant food processing by native people who were surely the neighbors, if not themselves at least sometime occupants, of the Gold Hill settlement.

Ritsch and Marthaller Sites

A few miles downstream from Gold Hill are the Ritsch and Marthaller sites. These are neighboring and undoubtedly related occupations on either side of Applegate Creek at the point where it joins the Rogue River (Wilson 1979; Steele n.d.). Willow-leaf points and many contracting-stem, small side-notched, and Gunther Island points suggest that Marthaller may have overlapped to some degree with the early occupation at Gold Hill, and to a great degree with its later phase. Human burials and

a dense occupational zone suggest the pattern of a stable village with associated cemetery. The Ritsch Site was dominated by small concave base and Gunther Island points, and apparently lacked a significant earlier component. Two house floors show this to have been a residential site, but no cemetery was discovered. Conceivably the neighboring Ritsch and Marthaller communities shared a single burial ground. Radiocarbon dates from the Ritsch Site of 1470, 1400, 1150, and 460 BP place it firmly in late prehistoric time.

Far Hills Ranch

A few miles upstream from Gold Hill, close to where Elk Creek joins the Rogue River, is the Far Hills Ranch Site. Like Gold Hill and Marthaller, this site seems to have been a stable village with a cemetery associated (Davis 1983). Far Hills Ranch has been archaeologically studied only to a very limited extent, but reportedly over 90 human burials were removed from it before World War II, and reinterred at the nearby town of Trail. Restricted excavations here identified a probable residential component. The projectile point assemblage included a high proportion of early willow-leaf forms and a few late Gunther Island specimens. This is an assemblage quite similar to that from Gold Hill, suggesting that Far Hills Ranch was occupied over a similar timespan.

Elk Creek Sites

The sites known along the main stem of the interior Rogue River seem to exemplify a pattern of stable settlements that were occupied over generations, long enough for substantial cemeteries to develop in association with them. Similar but rather less intensive occupations may have been characteristic of the tributary valleys. This is suggested by the evidence from Elk Creek, where a major research project has provided a rich and systematically gathered database that describes the environmental setting and resources as well as the artifactual remains.

Elk Creek is a short upper Rogue River tributary that heads in the Cascades west of Crater Lake. Low water often limits the late summer and fall salmon runs in Elk Creek, but spawners are there from September to February, and steelhead peak there between December and May. People could have obtained exhausted, spawned-out fish from the shallow stream even without special equipment, simply by flipping them onto the bank with their hands. Elk Creek receives snowfall, but it normally melts off quickly, and the valley is a favored winter refuge for elk and deer. In modern times, hard snowy winters have only increased



the concentration of deer along Elk Creek, as stragglers were driven more completely from the high, cold mountains to the east. During spring, summer, and fall, small animals and plants for food and artifact making could be taken from a series of local environments on easy day trips. Environmental zones extended from thickets of alder, ash and cottonwood along the stream course, upward through buckbrush and mountain mahogany scrub into forests of oak, madrone, and Ponderosa pine. Especially important were the oak groves of intermediate elevation, where great quantities of acorns offered a readily storable winter staple. Higher yet grew Douglas-fir, hemlock, white pine, and sugar pine. On more distant peaks above 5000 feet, where snow lingered until July, were forests of red fir and white fir with delicious gooseberries, huckleberries, elderberries, and currants growing in the understory. One such place was Huckleberry Mountain, about 10 miles away (Budy and Elston 1986; Lyman 1987; Pettigrew and Lebow 1987).

Some three dozen archaeological sites were found by systematic survey along a seven-mile reach of Elk Creek. At several, only sparse flakes of worked stone appeared on the surface. At others flaked stone was more abundant, and a few also showed depressions in the ground, thought to be old housepits. Six sites were excavated to a significant extent, revealing an archaeological record in Elk Creek Valley that began as early as 5000 years ago and became quite rich within the last 1000 years. The absence of earlier archaeological sites probably does not indicate an absence of earlier occupation in the area, but rather the destruction or deep burial of any earlier record by geological forces. A radiocarbon date of 7400 BP on gravel deposits more than a meter below the modern surface shows that the present Elk Creek valley bottom was still forming then. The absence in valley floor deposits of any volcanic ash from the eruption of nearby Mount Mazama (Crater Lake) about 7000 BP suggests continued major stream erosion after that date. The finding along Elk Creek of artifact types dated from about 5000 BP onward may reflect stabilization of the modern surface around that time (Brauner and Lebow 1983; Budy and Elston 1986; McDowell and Benjamin 1987; Pettigrew and Lebow 1987).

At site JA100 four housepits were excavated, one of which had a second occupation floor superimposed over the first. One housepit was roughly rectangular, measuring about 11 by 19 feet across and a foot deep. The others were roughly circular, about 14 feet across and one or two feet deep. Typically they had the remains of wall posts around their edges, central fireplaces, and small pits dug into the floor, probably for storage; one structure had six such pits. Splotches of red, baked earth on the floors, along with charcoal and scattered patches of charred bark, suggested a

probable end to pole-and-bark superstructures by fire. One structure had been used after its abandonment for a cremation burial, as indicated by a fragmentary human skeleton found within a dense concentration of charcoal. Outside, between two of the houses, partial excavation revealed a pit about two feet deep and three feet in diameter. This pit contained numerous fire-cracked rocks, and near it were recovered 27 acorns of the Oregon white oak. Thirteen radiocarbon dates on debris from the JA100 houses indicate several episodes of intensive occupation and reoccupation between about 1000 and 200 years ago. A few scattered projectile points of earlier broad-necked and willow leaf types suggest occasional visits to the site over the preceding several millennia (Pettigrew and Lebow 1987).

A single housepit excavated at site JA59 was roughly circular, about 16 feet in diameter. It had been dug into a hillslope, so that the downhill edge of the level floor was at the ground surface, while the uphill edge lay at a depth of about two feet. A large irregular hearth near the center of the housepit yielded a ^{14}C age of 740 years ago. As in the JA100 houses, red-fired earth and charred bark suggested burning of the pithouse superstructure. A series of six additional dates from the later fill of the housepit imply that it was afterward used intermittently as a refuse dump, between about 500 BP and historic times. This refuse may indicate the former presence of other structures nearby, perhaps now destroyed by the grading of a road through the site. As in the case of JA100, a few scattered broad-necked and willow-leaf points suggest earlier visits (Budy et al. 1986; Pettigrew and Lebow 1987).

Site JA27A apparently once had housepits, but uncontrolled digging by looters prior to the archaeological study made this impossible to verify. Excavations there yielded a concentration of cobble tools, a cluster of cobbles, a cluster of fire-cracked rocks, and a small shallow pit with heavily fire-reddened walls. Also found were a few fragmentary human bones, evidently placed as a disarticulated burial in a small pit about a foot deep. The burial pit was lined with stream cobbles, and with seven milling stones, or metates. Seven radiocarbon dates showed episodes of occupation between about 1600 BP and historic times. A few broad-necked and willow-leaf projectile points from a lower stratum suggest occasional earlier visits beginning as much as 5000 years ago (Pettigrew and Lebow 1987).

Three of the excavated sites had no housepits, and clearly were occupied ephemerally. Interestingly, each of these was closely adjacent to one or more housepit occupations. Site JA27B, on a terrace above JA27A, revealed only a few concentrations of fire-cracked rock, charcoal and burned red earth. Site JA102, also on a high terrace, produced only a



sparse scatter of flaked stone. Site JA107, at low elevation on Elk Creek, yielded considerably more abundant flaked stone debris. Although the excavators saw this as a residential site because of its wide variety of tools, the absence of any housepits suggests that it may have been simply a short-term seasonal field camp, albeit a well-situated and frequently used one. All three sites had projectile points of types dated throughout the last 5000 years. Sites JA27B and JA107 especially had relatively high percentages of broad-necked and willow-leaf points, indicating that they saw the most intensive earlier occupations among the six excavated sites (Budy and Elston 1986; Pettigrew and Lebow 1987). It seems likely that many if not most of the unexcavated Elk Creek sites, known only from limited surface indications, were of character similar to these three—ephemeral field camps, some with a long history of use, that during late times served as activity locations subsidiary to the main housepit occupations.

All the Elk Creek sites yielded flaked stone points for hunting projectiles. These included mostly small, narrow-necked arrowheads, while larger broad-necked points probably used to tip atlatl darts were much less numerous. Willow-leaf points, which ranged from quite small to quite large, probably were used during both the bow/arrow and atlatl/dart periods, with the narrower forms tending to be late and the broader forms early. Flaked stone tools for processing meat, hide, and bone included bifacial and unifacial knives and scrapers, drills, burins, and large cobble choppers. Numerous distinctive keeled end scrapers from JA107, which showed heavy use-wear and much resharpening, suggest that woodworking was particularly important at that site (Budy and Elston 1986).

The fine-grained stone used in tool making was predominantly chert, locally available in stream gravels and rock outcrops. Local basalt was also used. But obsidian brought from remote sources was important as well, comprising 3% to 10% of the flaked toolstone at various sites. Obsidian does not occur locally, and the limited fragmentation of flaking debris, as well as the absence of weathered cortex on flake debitage, indicate that it was imported as already shaped and retouched tool preforms (Spencer 1987). Some 200 obsidian artifacts from Elk Creek were traced by geochemical "fingerprinting" to three distant flows: Silver Lake/Sycan Marsh 70 miles to the northeast, Spodue Mountain 70 miles due east, and Grasshopper Flat, 90 miles to the southeast. The three sources were all strongly represented in the Elk Creek samples. There was somewhat less obsidian from Grasshopper Flat, as might be expected due to its greater distance, but at the same time Grasshopper Flat obsidian

reached its highest local proportions in those Elk Creek sites nearest that source (Hughes 1987; Zeier 1986). The essential conclusions of these studies have been independently substantiated by a later analysis using other data (Nilsson and Kelly 1991).

Ground stone plant-processing tools included bowl-shaped mortars, hopper mortar bases, pestles, metates, manos, and edge-faceted cobbles. Battered hammer and anvil stones probably served various functions. Quartz crystals, pigment stones, and fragments of steatite smoking pipes no doubt reflect the social realm.

Nearly 500 pottery sherds were found at JA100, and 90 more at JA27A. Pottery was conspicuously—and inexplicably—lacking at JA59, only one sherd having been found. On a housepit floor at JA100 was found a broken but reconstructable shallow bowl, eight inches in diameter and about four inches deep. It was thick and hand-modeled, as shown by numerous finger impressions. The inside of the bowl rim had been decorated with fingernail incisions, and the inner surface was incised in an irregular cross-hatch pattern. The bowl exterior was rough, the surface having largely exfoliated or eroded away. Baking in an open fire had given it an uneven reddish brown color. Pottery sherds from the Elk Creek assemblage as a whole showed that such bowls were the prevalent form, though one small cup about two inches in diameter and one inch deep was also recognized. This pottery belongs to the Siskiyou Utility Ware tradition, recently discovered to be widespread in southern Oregon and northern California. Found with the pottery were also a few fired clay figurines, small and very simply made. These included a deer's head, a human torso, a fish tail, and some nondescript flattened and conical broken pieces (Mack 1983, 1987; see also Endzweig 1989).

Bones and bone fragments from the Elk Creek sites numbered more than 26,000, of which 650 were complete enough to be identified to genus or species. Most of these represented deer; much less common were elk, beaver, pocket gopher, mountain lion, canids (dog, coyote, or wolf), fox, turtle, and salmon. The modern excellence of Elk Creek as a winter deer habitat is shown by these data to be of long standing. Analysis of the stages of eruption and wear on deer teeth indicates that the animals in the sample were killed predominantly in the fall, winter, and spring. The dental age profiles also showed young and old animals in disproportionately great numbers, while prime adults were rarely taken. This implies individual hunting, because the very young and very old are most likely to fall prey to human (or other) stalkers, while alert, healthy adults are most likely to escape (Lyman 1987). Chemical analysis of

projectile points and butchering knives confirmed the importance of deer hunting at Elk Creek, by identifying cervid (deer, elk) blood on most of the artifacts examined (Loy 1987).

Charcoal and charred seeds from firehearths and soil samples taken at the Elk Creek sites reflect a prehistoric vegetational mosaic comparable to that which exists in the area today. Table 6.1 shows the species identified, the environmental zones they represent, and their probable economic use and season of collection.

Table 6.1. Economic use and seasonality of plant remains from Elk Creek sites (Davis and Miksicek 1987: Table B.6).

| Common Name | Economic Use | Season |
|------------------------------|--|--------------------|
| Mixed Conifer Forest | | |
| Fir | basketry, wood, sap-medicine | year round |
| Douglas-fir | basketry, wood, sap & twigs-medicine | year round |
| Pine-Oak Woodland | | |
| Pine | wood, nuts, edible cambium, sap-medicine | nuts-fall |
| Oak | edible acorns, wood, medicine | acorns-late summer |
| Incense Cedar | Wood, medicine, fragrant boughs | year round |
| Cascara | bark-medicine | year round |
| Madrone | edible berries, wood, leaves-medicine | late summer |
| Manzanita | edible berries, wood, leaves-medicine | late summer |
| Hazelnut | edible nuts, basketry, bark-medicine | nuts-late summer |
| Blackberry | edible berries, roots-medicine | summer |
| Elderberry | edible berries, flowers & bark-medicine | late summer |
| Huckleberry | edible berries, bark-medicine | summer |
| Stream Forest | | |
| Red Alder | wood, basketry, bark-medicine | year round |
| Willow | basketry, bark-medicine | year round |
| Oregon Ash | wood, roots-medicine | year round |
| Meadow Herbs, Grasses | | |
| Bluegrass | edible seeds | early summer |
| Ryegrass | edible seed | summer |
| Panic Grass | edible seeds | summer |
| Fescue Grass | | early summer |
| Lamb's quarters | edible seeds, greens | summer |
| Bedstraw | medicine | summer |
| Plantain | edible leaves, medicine | summer |
| Borage | | early summer |
| Dock | greens, medicine | summer |
| Knotweed | edible seeds | summer |
| Lupine | edible leaves, roots, medicine | summer |
| Lotus | | summer |
| Hop Clover | edible seeds | early summer |
| Buckwheat | edible young stems, medicine | summer |
| Thistle | edible stems, medicine | summer |
| Tarweed | edible seeds | summer |

Food waste, ash from campfires, and human excrement are three by-products of human activity that can leave concentrations of phosphorous in the earth of archaeological sites. Phosphorous tends to be quite insoluble and not readily leached away from its original place of deposition. Thus its accumulation can indicate the intensity of human activity at occupation sites. Chemical analysis of soil profiles showed intense concentrations of phosphorous at JA59, strong concentrations at JA100, and somewhat lesser but still significant concentrations at JA27A. The first two of these are housepit sites, where the structures themselves and the general abundance of artifacts also signal heavy human activity. Housepits are believed to have occurred at JA27A as well, but digging in the site by looters eliminated the possibility of verifying this. Site JA27B showed relatively little phosphorous. This too is congruent with other indicators of more limited occupational intensity there (McDowell 1987). Two other sites, JA102 and JA107, were not tested for chemical residues, but lack of housepits and low artifact densities indicate limited occupational intensity there as well.

In broad view, the culture history of Elk Creek demonstrates a high degree of continuity throughout the 5000 years of record. The basic functional artifact types changed little throughout this period, except for the introduction of the bow and arrow about 2000 years ago, and the introduction of pottery about a millennium later. Manifestly however, along Elk Creek as elsewhere in the Southwestern Mountains, human occupation intensified significantly during the last 1000 years. As noted above, two basic kinds of sites have been identified: domestic homesteads with housepits, and apparent field camps or activity locations where human use was less intensive, probably seasonal. The seasonal sites give evidence of use over a generally longer timespan, from a period when willow-leaf and broad-stemmed projectile points were dominant—perhaps as early as 5000 BP—down to the time of the main housepit site occupations, after 1000 years ago. The housepit sites, though most intensively occupied within the last thousand years, also yielded some projectile point types suggestive of earlier occupation. There was thus an overlap in the time of occupation of the two kinds of sites, but no housepit sites are documented for earlier times.

How may the change in settlement pattern be accounted for? An appealingly simple hypothesis points out that salmon and steelhead runs in the Rogue River system would provide an important native food resource concentrated in good fishing localities. Deer and acorns are also abundant and highly important food resources in the same area, but tend to be much more dispersed. Thus, the best choice for a homestead site would be near a good fishing spot. Here people could exploit a major

dependable food source close at hand, and range out on short trips to camps and activity locations for deer and acorns. During the last 1000 years it appears that Elk Creek provided such spots. But perhaps in earlier times, dryer or warmer climate made for lower and warmer waters in Elk Creek; fishing might then have been sufficiently unproductive that people were not induced to build permanent homes in the valley. In such times, they might have chosen instead to live along the main stem of the Rogue River, not many miles away. Elk Creek would even then have been a good place to gather acorns and hunt deer, but this could be accomplished on forays out from homesteads elsewhere, with only temporary bases established along Elk Creek. Exploration of this hypothesis will challenge investigators to develop a much better understanding of the regional climatic history than now exists (Pettigrew and Lebow 1987).

Hinterland Sites

As just discussed in relation to Elk Creek, activity locations and field camps in the hinterlands must have been a regular complement to the more settled homesteads known along the rivers and major streams. Major pithouse settlements such as Gold Hill, Far Hills Ranch, and those along Elk Creek must all have been ringed by small sites where brief visitations required no substantial shelters. In fact, small sites attested only by scattered flakes, points, or ground stone artifacts are known to occur in various settings sometimes quite distant from known pithouse occupations. Most of these are known only from surface observations, but a few from the Upper Rogue River area have been examined through limited excavations.

The Salt Creek Site, on a ridge overlooking Little Butte Creek Valley, may be a typical example of a hinterland location. It gave evidence of scattered flakes, and a variety of projectile points including leaf-shaped, side-notched, stemmed, and triangular types. The range of forms suggests that the site may have been visited repeatedly over a considerable span of time. Sites JA1 and JA2, in the Emigrant Dam reservoir area, also appear to have been seasonal camps. They yielded only lithic flakes and a few arrowpoints. Site JA85, on a terrace above Jackson Creek, produced only a few small projectile points, but a considerable number of pestles, mortar bowls or bases, and grinding slabs. It was manifestly a special plant-processing location (Pettigrew and Lebow 1987).

Border Village

Looking southward from the Rogue River center, another major focus of prehistoric occupation was along the Klamath River (Mack 1983, 1990). A number of sites have been studied along the middle reaches of the river, just at the point that it crosses from Oregon into California. This general area was a borderland shared historically by the Klamath, whose homeland centered to the east and north, and the Shasta, who were a well-established people of the Southwestern Mountains. A ^{14}C date of 7650 BP from Klamath Shoal Midden shows human presence in the area at an early time, and several sites along the river contain Gold Hill, Northern Side-notched, and Elko series projectile points that are generally dated between about 7000 and 2500 years ago. Thus, occupation of the Klamath River canyon spans at least the last 7500 years, but sites from which the most detailed record has been derived are much later, dated near the end of the prehistoric period. Of interest here for illustrative purposes is Border Village, located on the Klamath River a scant half-mile north of the California border. The nearby Big Boulder Village and Iron Gate sites furnish comparable records, but to avoid substantial duplication they are simply mentioned here.

Border Village occupies an area about 600 feet in length and 100 feet in width, on an alluvial terrace overlooking the Klamath River. Within this space were observed 19 apparent pithouse depressions, which occurred, irregularly spaced, in two parallel rows. Two of these depressions were completely excavated, revealing pithouse floors, and a third was cross-sectioned by means of an X-shaped trench, confirming that it was a similar structure.

Housepit 1 proved to contain four occupation floors, the deepest about two feet beneath the surface. The others apparently represent episodes of rebuilding or refurbishing the initial structure. The floor of this building was circular, slightly over 21 feet in diameter. In the center was a large firepit, and lying on the floor were scattered artifacts, including many muller fragments and several milling slabs. Charred wooden posts and slabs lay on the floor, and three stubs of apparent roof support posts remained in vertical position near the center of the unit. Two vertically placed wooden planks, and the wood fragments lying on the floor, suggested that the superstructure of the dwelling had consisted of wooden planks leaned inward from the edges of the housepit to rest against the support posts observed near its center. The floor which overlay this one, separated by a few inches of earth, exhibited similar characteristics, as did the two which followed in sequence above it. The

three uppermost floors all exhibited both a central firepit and a subsidiary fire area to one side nearer the house wall. Burned materials found on all four floors suggested that each cycle of occupation had been terminated by fire, after which a new structure had been built in the same pit.

A ^{14}C determination made on a vertical post stub associated with the third occupation floor indicated an age of 550 BP. It seems that no great amount of time separated the four occupations represented within the housepit. The same kinds of projectile points, predominantly Gunther Barbed, of late prehistoric age, were found throughout (Figure 6.13).

Excavations showed the other two houses examined at the site to have much the same character. The projectile points excavated were also predominantly of the Gunther Barbed type, suggesting a similar age. Whether all 19 of the structures indicated by surface depressions at the site conformed to this same pattern of content and age is speculative, of course. It would not be surprising if further work at the site suggested a broader time range for the location as a whole, but currently available evidence gives little sign of it.

The artifact assemblage from Border Village was rich; the collection from Housepit 1 is illustrative. Projectile points and a variety of knives and scrapers imply hunting. The processing of plant foods is indicated by a large number of milling stones and manos, or mullers, as well as by the occurrence of over 400 pottery fragments from cooking vessels. Manufacturing activities are attested by flaked stone cores, drills, gravers, knives, and scrapers. A few fragments of twined basketry were also preserved, which is very unusual in open sites of this kind.

Bones excavated from the housepits at Border Village represent a varied bag of food species; fish included salmon, chub, and suckers; mammals included deer, antelope, elk, mountain sheep, beaver, porcupine, a variety of small rodents, jackrabbit, cottontail, river otter, and such predators as grizzly bear, mountain lion, and red fox. It is thus clear that the inhabitants of the village relied both on the river and the wooded hinterlands beyond it for protein foods. Though no actual plant remains were preserved, it seems likely that plant gathering followed a similar pattern. Certainly the grinding tools recovered from all occupation floors indicate consistent processing of vegetal foods.

Site distribution data show that settlement and activity locations in the Klamath River canyon were well-chosen to give their occupants optimum access to the natural resources of the area (Mack 1990: 15-17). Typically, sites were located on the first or second terrace of the river, adjacent to

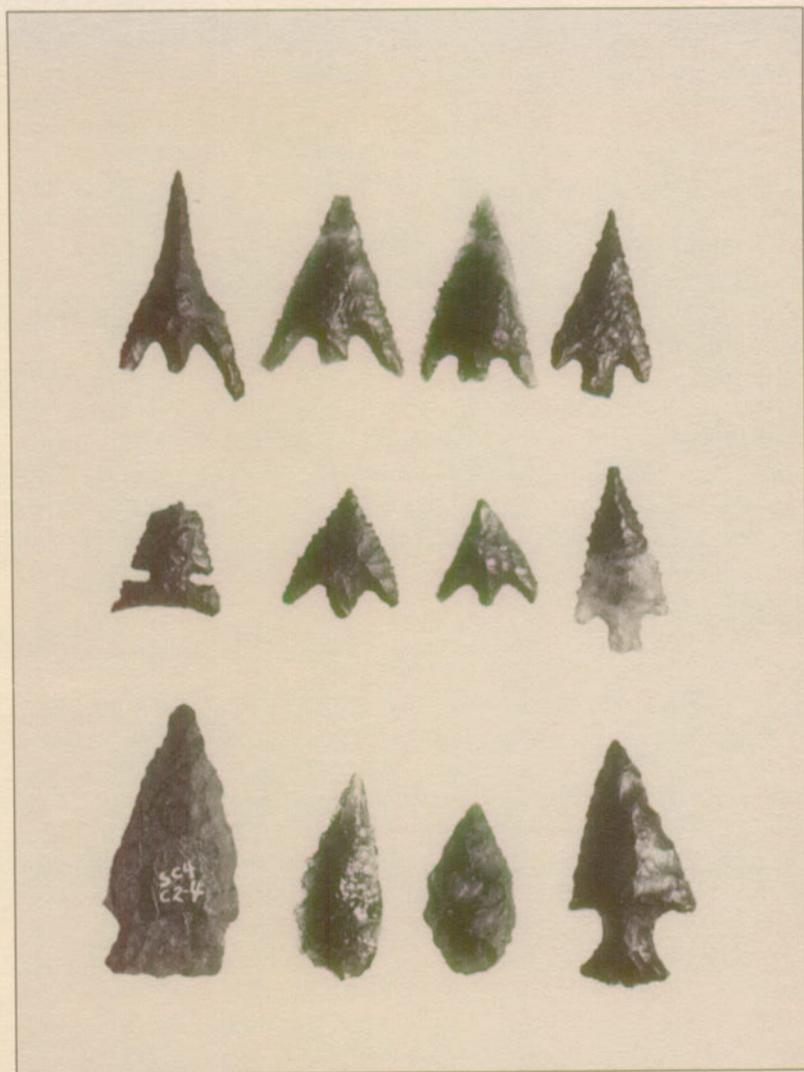


Figure 6.13 Projectile points from the Middle Klamath River area. Top row, Gunther Barbed and small basal notched point; middle row, left, Desert Side-notched, right, small stemmed points; bottom row, earlier stemmed and leaf-shaped forms.

wide stretches of shallow water, and near springs or places where small streams joined the main river. Such spots offered flat, well-drained ground on which to live, fresh water, good fishing, and immediate access to the varied flora and fauna of the riparian zone along the stream as well as the wooded mountains through which the river cut. In such places people could have maintained year-around settlements, making forays as needed to nearby hunting areas, root grounds, and acorn-gathering

localities. The floral and faunal evidence just described from Border Village seems to exemplify precisely such a pattern.

From the occurrence of pottery sherds in Klamath River sites, including Border Village, Mack (1983) defined a new artifact type for southwestern Oregon and northwestern California. It was long believed that the people of the west coast did not make and use pottery. In historic times none did to any significant extent. But archaeological discoveries have now shown that in late prehistoric times pottery was widely distributed in the drainages of the upper Klamath, Pit, and Rogue rivers. This pottery, called Siskiyou Utility Ware, is crudely hand-molded, variable in thickness, coarse in texture, and generally buff in color (Fig 6.14). Fingernail impressions frequently decorate vessel rims, and incised lines occur on body surfaces. Exterior surfaces are often exfoliated and rough, while interior surfaces are smooth. Wide-mouthed shallow bowls seem to have been the most common forms, but cups have also been identified. Radiocarbon dates for sites at which this pottery has been found place it between about 1100 and 400 BP (Mack 1990).

Siskiyou Utility Ware was obviously a tradition of local origin. A survey of the archaeological literature by Mack (1987) identified sparse and scattered finds of late prehistoric brownware pottery in the Sacramento/San Joaquin Valley and the Columbia River drainage, as well as in the Great Basin, but none of these definitively resemble Siskiyou Utility Ware. The same is true of small earthenware figurines representing people and animals (see below, *Artistic and Symbolic Forms*) that are often found together with Siskiyou Utility Ware in archaeological sites. Although clay figurines of varied forms were made in central California from Early Horizon (4500 BP) times onward, and along the Columbia River at least in late prehistoric times, the figurines associated with Siskiyou Utility Ware are quite separate in their emphasis on animal and human subjects and their realistic rendering. In the absence of clear connections among these various regional traditions, it is reasonable to suggest that all are most likely areally restricted developments that grew out of a widespread general knowledge of fired clay technology that is itself of great antiquity.

North Umpqua Narrows

A third major focus of occupation in the Southwestern Mountains region is the Umpqua River Basin, north of the Rogue River drainage. Until recently all but unknown archaeologically (Hanes 1978a), a number of important sites have now been excavated which begin to define the outline of prehistory in the area.

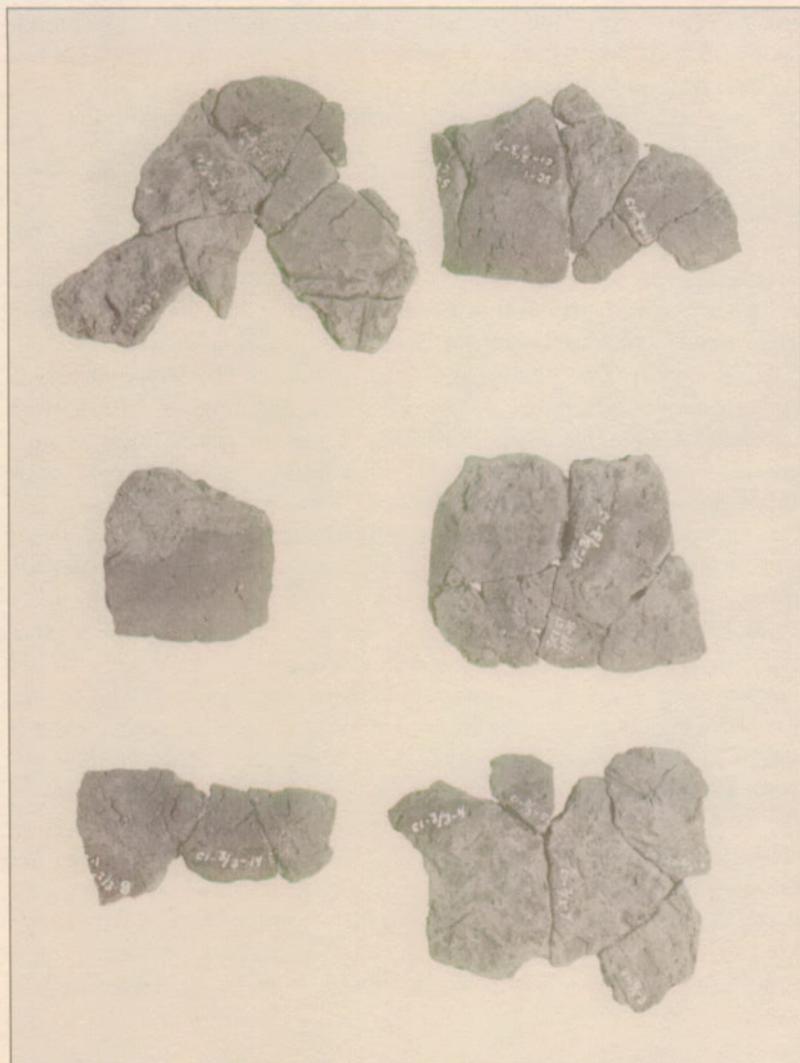


Figure 6.14 Fragments of Siskiyou Utility Ware pottery from the middle Klamath River.

A key site is that at the Narrows of the North Umpqua River, where the stream churns through a tight chute and over a falls about 10 to 15 feet high. This locality was described in an 1855 cadastral survey report as the site of an extensive Indian fishery. It remains a popular spot today, where salmon, steelhead trout, and other species are taken in considerable abundance. The Narrows is located at the very edge of the Western Cascades, and a short distance downstream the river emerges from a deep canyon into the broad, open flood plain of the Umpqua Basin. The

archaeological site is thus situated within a vegetational ecotone, where the woodland species of the mountains and the grassland species of the valley intergrade. People coming there would have had ready access to not only fish from the river, but the varied range of plants and animals native to two quite different natural habitat zones. O'Neill (1989: Table 5) tabulates 31 plant species identified from the vicinity, virtually all of which have some nutritive, medicinal, or industrial use.

Archaeological excavations revealed a stratified sequence of human occupation at the Narrows that reached back more than 6000 years, dated by ^{14}C determinations on firehearth charcoal of 6270, 5090, 1020, 450, 330, 320, 140, and 90 BP (O'Neill 1989, 1990). Throughout this sequence were found flaked stone projectile points, biface and uniface cutting and scraping tools, cobble choppers, hammerstones and pounding tools, and ground stone mortars and pestles. Numerous cores and thousands of flakes of chert, basalt, and obsidian gave evidence that stone tools were manufactured on the spot throughout the history of the site. Bone was rarely found in the excavations, and plant remains other than charcoal not at all, owing to poor conditions for preservation. Nevertheless, the site's location and the tools found there clearly imply that fishing, hunting, and gathering activities were all staged from the place. At Martin Creek, another riverine site some miles downstream, excavation of a protected rockshelter gave evidence of artifacts associated with the bones of deer, hare, squirrel, salmon, and sucker, as well as shells of the freshwater mussel. Charred hazelnut hulls were also reported (O'Neill 1989).

Traces of a pithouse at the Narrows, ^{14}C dated on hearth charcoal at 1020 BP, suggest that people stayed at the locality for some weeks or months; at any rate for long enough stretches of time to make such construction worthwhile. The 1855 cadastral survey notes mention a nearby village then occupied by Indians who fished at the Narrows, but its archaeological trace has not been found.

Limpy Rock Shelter

Upstream, Limpy Rock Shelter is one of some 20 sites deep in the rugged terrain of the North Umpqua River headwaters that have been identified as seasonal upland hunting camps (Baxter 1989: Table 1, Figure 2). The site is a large overhang filled with rocky rubble. Limited excavations recovered some 200 flaked stone tools, including projectile points, knives, scrapers, and other items. More than 4000 pieces of flaked stone debitage and a few spent cores indicate that tool making was one of the activities carried out at the site. All the flaked stone tools, especially the projectile

points, can be associated with hunting tasks; a few grinding slab fragments and a hopper mortar base indicate the processing of plant foods as well.

The centrality of hunting at Limpy Rock Shelter is suggested by the recovery of nearly 3300 bones of mammals, birds, and fishes, most of the identifiable specimens being of deer or other medium to large mammals. As in the case of most such finds, it is not wholly clear to what extent the bones might reflect the activities of other predators besides human hunters. The faunal inventory is certainly congruent, however, with a tool assemblage unmistakably suited to hunting and butchering tasks. No occupation floors or distinct cultural features were found at Limpy Rock Shelter. That camp fires were made there is suggested by scattered charcoal, but no definite hearths were discovered. A ^{14}C determination of 430 BP on charcoal gathered from the excavated deposits dates the occupation to the late prehistoric period.

South Umpqua River Sites

The South Umpqua Falls, Hughes I, and Times Square rockshelters comprise an apparently related complex of base camp and hunting sites situated within several miles of one another. The South Umpqua River Falls are high enough to concentrate fish, but not high enough to prevent the passage upstream of spawning salmon and steelhead trout. Chinook salmon spawn in the fall. Steelhead enter the river in fall and spawn during the winter. Lamprey eels are also seasonal migrants. In addition to these anadromous species the river is inhabited year around by rainbow and cutthroat trout, suckers, chubs, sticklebacks, and squawfish. The vicinity is further important as an overwintering area for deer and elk, lying as it does somewhat below the elevation of persistent winter snowpack. The South Umpqua Falls are a traditional camping and fishing location of the Cow Creek Band of Umpqua Indians, who continue to use the area today (Minor 1987).

Two small rockshelters overlook the South Umpqua Falls, and excavation revealed that both were occupied prehistorically. Similar projectile points and other artifacts from the two shelters suggest that both span approximately the same time range, and three glass trade beads from the lower shelter indicate that its occupation continued into historic times. A ^{14}C date of 3190 BP from the upper shelter relates to the earliest occupation, while a date of 600 BP pertains to later occupation in the lower shelter.

People encamped in the rockshelters left behind a number of flaked stone projectile points, knives, scrapers, drills, and other tools. They also left



cores of tool-making stone and thousands of flakes of chipped stone debitage. Cobble tools included hammerstones, anvils, and grinding stones. Bone or antler artifacts included wedges, stone-flaking tools, awls, and sharpened bone splinters. Also found were shell disk beads, *Olivella* shell beads, and a number of bear claws perforated at one end for suspension. The inventory represents a variety of hunting, food-processing, and manufacturing tasks, suggesting that people spent a considerable amount of time at this location and were involved while there with a number of different activities. The remains of five burials found in the upper shelter, presumably of people overtaken by death there in the normal course of events, imply fairly regular human presence at the site.

Animal bone from the South Umpqua Falls Rockshelters included more than 46,000 items, mostly fragmentary. Some 4300 identifiable specimens represented predominantly mammals (55%) and fish (36%). There were also small or trace amounts of land snails, freshwater clams, birds, reptiles, and crustaceans. Deer were by far the most common species among the identified mammals, and most of the unidentified fragments were also of the size and thickness of deer bone. Some 21 other mammal species included creatures as small as shrews, voles, and wood rats, and as large as mountain lion and elk. The fish bones were not tabulated quantitatively by species, but included salmon, sucker, squawfish, chub, and lamprey eel.

Seeds and nuts from the excavations included predominantly pine nuts, hazelnuts, Douglas-fir seeds, and seeds of the rose family. Some hazelnut shells and rose seeds were charred, suggesting that they had been roasted or toasted. The bulk of the seeds and nuts, however, could not be certainly identified with human agency. Although they may have been brought into the sites by people, it is also highly possible that they were brought in by rodents or perhaps reflect the natural "seed rain." At the least, all are known historically to have been used as food, and their occurrence in the rockshelters shows that they were available in the near vicinity should the human occupants choose to seek them out.

Much less abundant and diverse evidence of occupation was found at Hughes I Rockshelter, high on a densely forested slope about a mile distant from South Umpqua Falls. The small artifact assemblage was dominated by projectile points, knives, and scrapers, though a grinding slab and handstone were also found. A ^{14}C determination of 1025 BP on charcoal from an ash lens dates the deposit. Over 1700 whole and fragmentary bone specimens were recovered from the small test

excavations, most of them so broken up as to be unidentifiable. Of the bones that could be identified, 96% were of deer. Most of the fragments are also believed to represent deer, based on their size and thickness. Clearly this was a hunter's camp where deer were brought for processing, and must have seen only brief occasional use.

Times Square Rockshelter, about three miles above South Umpqua Falls, like Hughes I also gives evidence of upland hunting, but it yielded a considerably more detailed record. It lies in an area of considerable biotic diversity, within the Mixed Conifer zone but close to the boundaries of the Subalpine Mountain Hemlock and Interior Valley vegetation zones; plant associations characteristic of all these zones occur in the vicinity of the site (Spencer 1989: Figure 4). Growing in the immediate vicinity of the rockshelter are salal, blackberry, oregon grape, gooseberry, strawberry, thistle, wild buckwheat, ferns, manzanita, chinquapin, madrone, ponderosa and sugar pine, white oak, and hazel, all of which yield edible berries, seeds, roots, or nuts. Most of these plants ripen during August and September. The fish and mammalian species available near the site are essentially the same as those named for the South Umpqua Falls rockshelters.

Animal bones were recovered in abundance from the dry Times Square deposits, consistent with artifactual indications (below) that it served as a hunting camp. Although the bones were heavily fragmented, specimens representing 14 mammalian species were identified, in addition to remains of fishes, birds, reptiles, and amphibians (Schmitt 1989). Hundreds of rodent and rabbit-sized bones were partially digested, making it clear that carnivores and possibly raptors had delivered them into the cave in fecal pellets. Woodrats ("packrats") also commonly collect bones in their nests, and woodrat bones themselves indicate that these creatures did live in the rockshelter. On the other hand, many flakes of heavier bone, bones with butchering marks, and bones showing evidence of burning give ample evidence of human processing as well. Deer and elk bones most commonly exhibited these traces, and a great amount of highly fragmented deer and elk bone indicates that in addition to butchering to remove meat, skeletons were subjected to pounding and breakage for the extraction of marrow.

Radiocarbon dates of 3240, 2690, 1500, 1380, and 800 BP were obtained on charcoal from Times Square Rockshelter. Two small white glass trade beads, dated most commonly to the period 1820-1840, a piece of wrought iron, and a fragment of tin-ware bring the evidence of human occupation into early historic times. Remnants of a recent pole-supported shelter

attest contemporary usage of the site. Most of the archaeological specimens from the site came from the uppermost strata, and are referable to the last 1500 years.

Flaked stone artifacts included a number of fragmentary projectile points, many cutting and scraping tools made on flakes, a number of cores, and nearly 10,000 flakes of working debris from artifact manufacture. This assemblage can be readily identified with hunting, butchering, and tool-maintenance activities. The high percentage of broken projectile points, as well as the abundant lithic manufacturing debris, indicates that broken points were replaced at Times Square Rockshelter in the process of refurbishing damaged arrows. Two pestles and three hopper mortar bases, one ground into a bedrock ledge, indicate that some plant food processing also went on at the site. Most of the toolstone was chert, with a small but significant percentage of obsidian also present. A small sample of obsidian artifacts from the site, their chemical compositions identified by the X-ray fluorescence method, were traced to sources at Silver Lake, Sycan Marsh, and Spodue Mountain. A single specimen was traced to a source at the Newberry Craters. These obsidian flows all lie east of the high Cascades, some 70 to 80 miles away.

A number of artifacts made of normally perishable plant materials were preserved in the dryness of Times Square Rockshelter. Five fragments of twined basketry have been described, and some 70 fragments of cordage. Many of these latter were knotted, suggesting that they may be fragments of light nets, fish line, or snares. Several small packets were made by folding madrone leaves together and tying them with strips of fiber or grass. Miscellaneous plant stems and fibers of maidenhair fern, bear grass, dogbane, rushes, and cedar bark represent materials that were used in weaving and spinning by many historic native groups. Their presence, along with the formed specimens, strongly suggests that basketry and cordage were not only used at the site, but manufactured there as well.

Wooden artifacts included a bow stave fragment, two arrow shafts, two projectile foreshafts, three wooden points, several awls and eyeless needles, and a fire-drill hearth, among less readily identifiable specimens. As in the case of the fiber specimens, manufacturing activities are suggested at the site itself by the finding of many wood chips and sticks that have been peeled, cut, and broken (Fowler 1989).

Hunting camps tend to be thought of as representing only male activities. In ethnohistoric times, men typically did the actual hunting, and

manufactured the lithic tools used in hunting and butchering. And in most archaeological sites the lithic artifacts, and perhaps the bones of the hunter's quarry, are all that is preserved for later analysis; the evidence thus suggests only male occupations. At Times Square Rockshelter, however, where dryness favored the preservation of wood and fiber artifacts, it appears that weaving and cordage-making—typically female activities—are also well-represented. With better archaeological preservation a significantly different picture thus emerges, of visits to the uplands that were probably familial in character rather than being all-male hunting forays. Such visits apparently included both manufacturing activities and the gathering of plant resources in the vicinity by non-hunting members of the group. Without the perishable artifacts, the only clues to female presence at Times Square would be the few mortars found, by themselves suggestive but isolated and therefore less than compelling evidence of activities typically carried out by women. Given the proximity of Times Square Rockshelter to South Umpqua Falls, where fairly substantial and long-term occupation is suggested, it would seem quite expectable that women and children, as well as males, would be in the complement visiting the site.

Standley Site

Toward the coastward edge of the Umpqua Basin is the Standley Site, an open settlement quite different in character from those just discussed. Research there has figured importantly in developing a long-term perspective on cultural continuity and change in the Southwestern Mountains as a whole (Connolly 1991). Archaeologically represented by a dense scatter of stone artifacts along the edge of a terrace overlooking the Camas Valley flood plain, the Standley Site was clearly a substantial encampment in prehistoric times.

Excavations revealed a number of buried cultural features, most of them comprised of fire-broken stones, burned earth, and charcoal. Some of these features contained charred hazelnut hulls or camas bulbs, and were undoubtedly fireplaces or the remains of earth ovens. Concentrations of burned wood and bark suggested the presence of dwelling structures, but none could be defined with assurance.

A wide range of tasks and activities was carried out at the Standley Site. The stone tool assemblage includes pestles, stone bowls, abrading stones, edge-ground cobbles, gouges, hammers, anvils, cores, flakes, knives, scrapers, drills, gravers, projectile points, clay figurines, and painted

tablets. In addition to hunting, gathering, and food-processing tasks, a distinctive wood-working industry seems to be indicated by distinctive end scrapers and gouges.

Obsidian, a common though not dominant toolstone at the Standley Site, gives evidence of distant exchange relationships. Of 40 specimens studied by geochemical analysis, 70% came from the Silver Lake, Sycan Marsh, and Spodue Mountain sources, nearly 150 miles east across the Cascades. Most of the rest came from California's Medicine Lake Highlands, more than 150 miles south and east.

Eleven ^{14}C dates ranging between 2350 and 310 years ago, and some 40 obsidian hydration measurements, place the most intense and continuous occupation of the Standley Site between about 3000 years ago and late prehistoric times. Some obsidian hydration dates indicate that earliest occupation began about 4500 to 5000 years ago.

The occurrence in the Standley Site artifact assemblage of leaf-shaped bipoints; distinctive shouldered, contracting-stem points; broad-necked stemmed points; edge-faceted cobbles; and stone bowl mortars first prompted the recognition of a Glade Tradition in southwestern Oregon. This tradition was seen as a regional continuation of the Old Cordilleran or Cascade pattern recognized throughout the Pacific Northwest (Connolly 1986; Connolly and Baxter 1986). Comparative statistical analysis of 47 artifact assemblages from the Southwestern Mountains region in Oregon and California showed that the Glade Tradition began some 9000 years ago and persisted long in the region, to late prehistoric times in the Umpqua and Coquille river basins (Connolly 1988). The deep, stratified Marial Site (mentioned earlier in this chapter) demonstrated the age and continuity of this tradition particularly well, and the Standley Site documented the last 3000 years.

Beginning about 1700 years ago the Glade Tradition was replaced in the Klamath and Rogue River drainages by the Siskiyou Pattern, which differed dramatically. Nucleated pithouse villages, predominant use of metates and hopper mortars, small side-notched and basally-notched projectile points, and a florescence of long-distance trade in marine shells and obsidian indicated a major cultural change. Connolly (1988) suggested that in-migration of a new people might account for this change, but noted that accelerated trading activities among people already resident could also have had far-reaching effects on the overall cultural pattern.

About 1000 years ago the Gunther Pattern appeared at Gunther Island on the northern California coast and spread rapidly, bringing distinctive

triangular concave-based points, bone harpoon points, shallow steatite oil lamps, large ceremonial obsidian blades, baked clay figurines, flanged pestles, bell-shaped mauls, zoomorphic stone clubs, and a variety of bone and shell ornaments. Because Gunther Pattern sites appeared in the area occupied historically by Athabaskan peoples, whose language identifies them unmistakably as immigrants from western Canada or Alaska, Connolly suggested that the sudden appearance of the Gunther Pattern marked the arrival of the Athabaskans in the Southwestern Mountains region. The archaeological date of about 1000 years ago for this event matches well with language-based estimates suggesting that the Oregon-California Athabaskans split off from their northern relatives about 1300 years ago.

In historic times, the area in which the Standley Site occurs was occupied by the Athabaskan-speaking Upper Umpqua, who are thought on ethnological evidence to have moved up the coast from farther south only a short time earlier. In Connolly's (1991) reconstruction, the lack of Gunther Pattern diagnostics at Standley implies its abandonment before or perhaps coincident with the local arrival of the Athabaskans.

Artistic and Symbolic Forms

Native rock art from the Southwestern Mountains is documented in a series of drawings and brief descriptions by Loring and Loring (1983: 1-15). Various interesting manifestations suggest the diversity that remains to be more fully studied and reported as research continues in the region.

The Yoncalla Boulder lies in a wooded draw near the modern town of the same name, not far from the boundary between the Southwestern Mountains and the Willamette Valley. The location is within the territory historically occupied by the Yoncalla tribe. A large stone about four by six feet across, the Yoncalla Boulder is incised with many short, deep grooves often arranged as sets of parallel lines or inverted v-shapes. Much longer grooves form bands enclosing these sets of lines in broad and narrow panels. The overall effect is strikingly geometric, and the fact that almost the entire surface of the boulder has been heavily engraved gives it a very imposing character.

Representational features are more characteristic of the paintings in red and blue pigment that are found on the walls of Dog Creek Cave in the Upper Umpqua valley. One figure shows a person standing with feet planted wide apart, holding a bow in one hand. The archer may be running, or perhaps has just let fly an arrow. Other human figures either

hold bows, or stand with arms outspread. Geometric figures are present as well. Circles with dots at the center are most common, but there are also sets of short parallel lines.

At Two Mile Rapids on the Rogue River, a boulder field contains a number of stones that have been heavily marked with pits, grooves, zigzags, and curved lines. Some of the pits are large and deep enough to be bedrock bowls or mortars. One simple fish outline is reported, but the elements overwhelmingly form geometric rather than representational patterns.

As discussed for other parts of Oregon, these markings on stone are understandable in a general way as symbolic figures and indicators of human activities, but detailed interpretations are elusive. The study of rock art in the Southwestern Mountains is still in its infancy. A fuller understanding of these prehistoric expressions should be achievable with systematic study of elements and motifs, and efforts to relate them to the value systems of the traditional people through historical study and consultation among their local descendants.

Fired clay figurines depicting animals and humans are a portable art form only recently found to be widespread in the Southwestern Mountains (Deich 1982; Mack 1991). These figurines exhibit the same reddish brown color, coarse texture, hand modeling, and fingernail-impressed decoration as seen on Siskiyou Utility Ware pottery, and generally occur together with such pottery in archaeological sites. Over 20 ¹⁴C dates place these figures (and Siskiyou pottery) between about 1000 and 400 years ago (Mack 1991: Table 1).

Animal figures, including deer, elk, fish, rodents, carnivores, owls, and possibly bears account for most of the figures; only about 10% are human representations. Breasts or penises show the sex of some of the human figures, but for most specimens sex is not indicated. Most of the human figures exhibit no facial features, but animal's heads often show such details as eyes, ears, mouths, muzzles, and antlers, that allow different species to be identified. Most of the known specimens are broken or damaged, though complete objects have also been found.

The figurines are believed to be children's toys because of their informality and lack of stylization. This is also suggested by the wide range of creatures depicted, their usually broken condition, and the fact that the figurines are typically found near main living areas, but outside the immediate work areas of adults. This distribution appears to reflect child play behavior, which is often so patterned (Mack 1991).

Fired clay figurines have been found in the middle and upper drainages of the Pit River, the Klamath River, and especially the Rogue River, where most of the currently known examples have been recorded. Historically, these were the territories of the Achomawi, Shasta, and Upland Takelma. More broadly, fired clay figurines are known from central California, some parts of the Great Basin, and the middle Columbia River. But the figurines of these areas lack the focus on animal representations, and the realistic depictions of facial features and limbs that set apart the objects from the Southwestern Mountains (Endzweig 1989). It is evident that the specimens from the Oregon-California borderlands comprise a distinct tradition, unique to that area. Notably, this tradition spread across a territory that in historic times was home to some very different tribal/linguistic groups, which ethnohistoric evidence shows to have nevertheless interacted intensively in trade, exchange of mates, and occasionally warfare. The sharing of a tradition that seems to have centered on the culture of children offers a poignant suggestion of the closeness that apparently grew between the ethnically and linguistically diverse people of the Southwestern Mountains.

Future Research

Archaeological research in the Southwestern Mountains has progressed remarkably in recent years, and an increasingly detailed picture of the regional prehistory is emerging. The biotic richness, cultural unity, and ethnolinguistic diversity of the region invite, however, much fuller exploration. A beginning has been made in outlining the course of past environmental change in the Southwestern Mountains, based on biogeographical study of the modern flora. But systematic paleoenvironmental research, based on geological study, pollen, tree-ring analysis, and other approaches, is just in the planning stages. Census and evaluation of the native food resources of the region, in terms of location, abundance and cyclicity, is being pursued but has not yet reached the stage of publication (Nan Hannon, personal communication). A provocative investigation into the relationship between seasonal and short-term climatic fluctuation, resource distribution and abundance, and the economic ranges of different groups, is also underway (Richard Olmo, personal communication).

The marked degree to which people of very different ethnic origins and languages came in the Southwestern Mountains to share a common way of life needs continuing investigation. Speakers of Hokan, Penutian, Athabaskan, and Algonquian languages interacted quite intensively in ethnohistoric times, and commonalities in the archaeological record

indicate that this interaction has deep roots. While retaining their own ethnolinguistic identities, people came to share most of the everyday patterns of residence, hunting, gathering, tool manufacture, and so on. Important socio-ceremonial observances apparently united diverse groups. For example, archaeology suggests that the White Deerskin Dance has a long history in both northern California and southwestern Oregon. On a more homely level, the making of children's toys from fired clay has a similar distribution. Further archaeological investigation of such relationships will be of much historical and anthropological interest.

Finally there are the unanswered questions and controversies that inevitably stem from ongoing research. Pettigrew (1990) provocatively catalogs problems and controversial interpretations that are actively under debate by regional researchers. A major item is how or whether two differing characterizations of the archaeological sequence of the region may be reconciled. In this survey, both ideas have been presented: the one, a periodization based on the concept of temporal phases (Pettigrew and Lebow 1987); the other, a view stressing continuities, based on the concept of cultural traditions (Connolly 1988, 1991). At the present stage of knowledge and analysis, the two schemes do not harmonize as well as could be wished. But the view taken here is that the different conceptual frameworks are (or should be) complementary, and that with further work both are likely to contribute important perspectives on the regional prehistory. As always, the call is for continuing exploration.