



APPENDIX I

CULTURAL RESOURCES REGIONAL ETHNOHISTORY

This Page Intentionally Left Blank

APPENDIX I

CULTURAL RESOURCE REGIONAL ETHNOHISTORY

Cultural resources are past and present expressions of human culture and history in the physical environment and include prehistoric and historic archaeological sites, structures, natural features, and biota which are considered important to a culture, subculture, or community. Cultural resources also include aspects of the physical environment that are a part of traditional lifeways and practices, and are associated with community values and institutions. These traditional cultural resources are addressed in a separate chapter on ethnographic resources and tribal trust assets (Chapter 3.15). Cultural resources addressed here include the physical remains of prehistoric and historic cultures and activities, such as archaeological sites, historic trails, and boom towns. Historic properties are a subset of these kinds of cultural resources that meet specific eligibility criteria found at 36 CFR 60.4 for listing on the National Register of Historic Places (NRHP).

In this chapter, cultural resources have been organized into prehistoric and historic resources. Further, they are discussed according to established culture regions: Alaska, Northwest Coast, Plateau, Great Basin, Great Plains, California, and Southwest. These are regions where there is continuity across the landscape in cultural adaptations and traditions. For consistency, maps defining these regions and the cultural groups within them are derived from the respective volumes of the Smithsonian Handbook of the American Indian and reflect the choices of the authors and editors of this series. These maps are generally depict territorial assumptions existing at the approximate time of Native contact with Euro-Americans and may not encompass territorial ranges or ancestral lands as recognized by tribes or archaeologists. For example, important Ancestral Puebloan occupations in Southwestern Colorado are found outside of the tribal ranges for the Southwest region. This is a programmatic

level overview and should not be considered a detailed source for the extent of regional cultural influence or tribal interest.

Culture resources of these regions have been organized into prehistoric and historic resources. Prehistoric resources refer to any material remains, structures, and items used or modified by people before Euro- Americans established a presence in the region. Historic resources include material remains and the landscape alterations that have occurred since the arrival of Euro- Americans.

Discussions of prehistory within each region are focused on chronological periods that have been established based on the prehistoric archaeology of the region. It should be noted that for many of these regions there are area-specific culture chronologies that have been developed where cultural practices were unique within the larger region. Discussion of such specific time periods is avoided here given the programmatic nature of this document and for ease of discussion. Discussions of the history within each region are organized by overall themes of the region. This includes such things as westward expansion, transportation, and mineral development. Since this approach leads to a very general discussion of the culture regions, an effort was made to work with the USFS and BLM regional and district offices within the project area to identify areas sensitive for cultural resources.

OVERVIEWS BY REGION

Alaska (Arctic and Subarctic)

Alaska is divided into two culture regions, the Arctic and Subarctic, which are combined into the Alaska culture region for purposes of discussion here (Figure 3-15). The physiographic boundary between the two culture regions is essentially the tree-line (Damas 1984a; Neusius and Gross 2007). Culturally, the boundary is defined by areas occupied by the Inuit or Eskimo and the Aleut and those areas occupied by other Native American groups. Within the project area, the Arctic extends from the Yukatut Bay along the Alaska coast to the Bering Sea and includes the coast and adjacent tundra of the Yukon. Note that the portion of Alaska south of Yukatut Bay is considered part of the Northwest Coast culture region. The Aleutian Islands are included in the Arctic culture region as well. The Subarctic culture region is inland from the Arctic and encompasses interior Alaska (Damas 1984a; Helm 1981a; Neusius and Gross 2007). The southern boundary is marked by the boundary between the boreal forest and mixed deciduous-coniferous forests (Helm 1981a). The Arctic and Subarctic regions also include areas of Canada, Nunavut, and Greenland (Damas 1984a; Helm 1981a; Neusius and Gross 2007). However, since these areas are outside of the project area they are not discussed here.

USFS regions in the Alaska culture region include most of Region 10. BLM District Offices included in the region include all or portions of the Fairbanks and Anchorage offices.

Table I-1 identifies the Alaska culture region languages and tribes that have been documented within the project area, as well as the specific culture region, Arctic or Subarctic, they are associated with. Culturally, the Alaska culture region considered here is bordered by the Northwest Coast to the south.

Table I-1
Languages and Tribes of the Alaska (Subarctic and Arctic) Culture Region in the Project Area

| Language (Linguistic Phylum; Culture Region) | Tribes |
|---|---|
| Athapascan (Na-Dene; Subarctic) | Holikachuk, Ingalik, Kolchan, Tanaina, Koyukon, Kutchin, Tanana, Ahtna, Han |
| Eskimaleut (American Arctic/Paleo-Siberian; Arctic) | Pacific Eskimo, Aleut, Mainland Southwest Alaska Eskimo, Nunivak Eskimo, St. Lawrence Island Eskimo, Bering Strait Eskimo, Kotzebue Sound Eskimo, Interior North Alaska Eskimo, North Alaska Coast Eskimo, Mackenzie Delta Eskimo |

Source: Damas 1984b; Helm 1981b; Waldman 2000

Although the standard Handbook of North American Indians for the Alaska culture regions (Damas 1984c; Helm 1981c) offer region-specific chronologies for the Arctic and Subarctic, a more generalized chronology relevant to cultural patterns found in Alaska, which encompasses only a small percentage of the overall regions, is used in this discussion. Much of Alaska was ice free during the last glacial period (Clark 1981; Neusius and Gross 2007) and one would expect to find the earliest evidence for people crossing the Bering land bridge from Asia to be found in western Alaska. However, Pre-Clovis evidence for occupation of Alaska is debatable and the early coastline has been greatly altered from rising sea levels. The earliest agreed upon evidence is for a microblade tradition in the Paleoindian Subarctic similar to that of the Archaic Northwest Coast. The following outlines a general chronology used here for the culture regions of Alaska (Neusius and Gross 2007). One will note that many of the cultural traditions outlined below occurred concurrently in different regions. Such cultural patterns were too highly varied to accommodate a single general cultural period and are thus addressed separately.

- Paleoarctic: pre-8000 BP
- Archaic: 8000 – 500 BP
- Northern/Central Alaska

- Northern Archaic Tradition: 8300 – 500 BP
- Arctic Small Tool Tradition: 4500 – 3000 BP
- Norton Tradition: 3000 – 1200 BP
- Thule Tradition: 2000 BP – Modern Times
- Pacific Coast Alaska
- Ocean Bay Tradition: 7000 – 4500 BP
- Kodiak Tradition: 4500 BP – Modern Times
- Aleutian Tradition: 5500 BP – Modern Times

The Historic period then follows the Archaic Period, but as one can see many of the Archaic cultural practices continue today with minor adaptations to modern influences.

CULTURAL HISTORY

Prehistoric

Paleoarctic: As discussed above the evidence for Pre-Clovis occupations in Alaska are ambiguous, particularly in the far northern areas. However it would be in western Alaska that we would expect to find the earliest evidence of human occupation of North America if peoples migrated to the area via the Bering Land Bridge. As such, the archaeology of the area is considered likely to provide important information pertaining to early North American human settlement (Neusius and Gross 2007). Fluted points have been found, but like other culture regions, these are typically found as isolated surface finds or in uncertain associations, many just east of the state line in Canada (Dumond 1984; Helm 1981; Neusius and Gross 2007); unlike other areas, it appears fluted points were made later in Alaska than they were to the south and have some technological differences. Although these points are not commonly found in direct association with bone of game in Alaska, blood residue analyses have indicated their use on such resources (Neusius and Gross 2007).

The earliest sites in Alaska are contemporaneous with Clovis sites found further south (Neusius and Gross 2007). The most confident of these early sites are comprised of stone tools and detritus (Dumond 1984). These are found western Alaska and are associated with the Nenana and Denali, dated to between 12,000 and 11,000 BP and between 11,000 and 8000 BP, respectively. The Nenana complex is a blade and biface industry, but is without microblades. Technology used to create Nenana tools is similar to that found in parts of the Southwest (Neusius and Gross 2007). The Denali complex is part of the Paleoarctic tradition seen elsewhere with inland hunters and includes microblades, wedge-shaped microblade cores, bifaces, and burins. Such toolkits are seen well into later periods of the region. It is believed that the microblade technologies are derived from Asia (Clark 1981; Neusius and Gross 2007).

Archaic: Archaic patterns in Alaska vary greatly across the region and differences between the Pacific Coast of Alaska and Interior Alaska begin to become more evident. In the northern and central regions of Alaska the Northern Archaic Tradition developed in the interior, giving way in some parts to the Arctic Small Tool Tradition and then the Norton and Thule Traditions. The first maritime adaptations are recognized along the Pacific coast in the Ocean Bay, Kodiak, and Aleutian Traditions. Throughout just about all of the Alaska region the Archaic persisted until historic times (Dumond 1984; Neusius and Gross 2007).

Central and Northern Alaska Traditions

The Northern Archaic Tradition (8000 – 500 BP) does not include microblades, but does include projectile points, bifacial tools, scrapers, and other lithic tools (Clark 1981; Dumond 1984; Neusius and Gross 2007). What little subsistence and settlement data there is would indicate that those practicing this tradition were generalized foragers who hunted on land and fished along rivers (Dumond 1984; Neusius and Gross 2007). Tracking these technologies across time and space has led researchers to believe that this tradition spread south and east following its development in interior Alaska. However, there is some indication that the tradition may have been the result of interaction with northern cultures of the Great Plains. Ultimately, the tradition appears to have been an antecedent to cultural practices of the Na-Dene or Athapaskan speakers of later times (Neusius and Gross 2007).

The Arctic Small Tool Tradition fully developed around 4000 and 3900 BP in northern Alaska midway through the Northern Archaic Tradition (Neusius and Gross 2007), ushering in a period of uniformity followed yet again by diversification of adaptations (Clark 1981; Damas 1984a). It is notably absent from the Aleutians and may have developed directly out of the Paleoarctic tradition of Siberia, migrating into Alaska. Originators of this tradition spread quickly throughout the Arctic and were the first to colonize the Arctic Ocean coast of North America, although the only known house sites are situated away from seacoast and toward the interior tundra. It is characterized blades that are smaller than those produced previously (Dumond 1984; Neusius and Gross 2007), as well as microblades, burins, adzes, oil lamps, as well as bone and antler tools (Clark 1981; Neusius and Gross 2007). Caribou hunting appears to have been the primary activity at sites of the Arctic Small Tool Tradition, but some on the Alaska Peninsula also appear to have been located so as to take advantage of salmon runs. In places where it remained, the tradition is believed to have continued until the Historic Period, appearing concurrently with other cultural traditions of the region (Neusius and Gross 2007).

In the western Arctic culture region the Norton Tradition developed and is dated to between 3000 and 1200 BP. Its tool assemblage is similar to that of the Arctic Small Tool Tradition, but incorporates ceramics. A series of three cultures, the Choris, Norton, and Ipiutak, characterize the Norton Tradition (Dumond 1984; Neusius and Gross 2007).

The Choris culture existed north of the Bering Strait between 3000 and 2500 BP and is characterized by new point styles resembling Paleoindian points of the Plains, chipped adze blades, burins, oval houses, and feather-tempered pottery. Technologies employed in Choris pottery appears to have been adopted from another region, most likely Asia, as a developed technology, as opposed to being locally invented (Dumond 1984; Neusius and Gross 2007).

The Norton complex appears around 2500 BP, apparently developing from the Choris complex. Occurring along the Alaska Peninsula and over to the northeastern border of the state and Canada, the Norton complex is characterized by caribou hunting, sealing, net fishing for salmon, and whale hunting as well as artifacts such as check-stamp design pottery, use of ceramic and stone lamps, end and side blades, knives, including some made of ground slate, burin-like tools, scrapers, and net sinkers (Dumond 1984; Neusius and Gross 2007).

The Ipiutak complex existed in northern Alaska above the Bering Strait and first appeared around 2000 BP, sharing several traits with the Choris and Norton complexes, but lacking lamps and pottery. The tradition is best known for its art, which incorporates elaborate carvings of animal and human figures, linked chains, and entangled objects. In addition to its art, the Ipiutak complex includes a variety of utilitarian objects such as harpoons, snow goggles, ground slate tools, and houses with entry ramps (Dumond 1984; Neusius and Gross 2007).

The Thule Tradition developed out of the Norton Tradition around 2000 BP and has continued through the Historic period (Dumond 1984; Neusius and Gross 2007). It covers several cultural complexes within Alaska. The tradition is likely best known for new hunting technologies to be used in open waters, especially for whaling (Neusius and Gross 2007). This is not to say though that the capabilities of Thule terrestrial hunters were not as sophisticated as those of marine and riverine hunters. In fact, the two skills were very well matched (Dumond 1984).

Early sites of the Thule Tradition are attributed to the Old Bering Sea and Okvik cultures (2200 – 1250 BP) of St. Lawrence and adjacent islands, as well as the Asian coast (Dumond 1984; Neusius and Gross 2007). The tradition is presumed to have developed about the same time the Ipiutak complex was developing on the mainland. Artifact forms of these Old Bering Sea and Okvik cultures are very similar and are only distinguished by their decorative art styles. The toolkit of these cultures in this part of the region included bone, antler, and ivory tools. Pottery was also used for cooking pots and lamps. Sea mammal hunting constituted the primary subsistence endeavor. It is thought that this was done from the ice edge, but was also likely done on open water with the use of harpoon lines and large open boats called *umiaks*. However, kayak artifacts and models provide evidence of the use of closed boats as well. Additionally, winter seal hunting is suggested by the presence of ice picks, fishing

by the presence of hooks and spears, and the bow and arrow suggest terrestrial mammal hunting. Sleds were used to transport materials and kills; however, these were not the dog sleds commonly associated with Alaskan cultures (Neusius and Gross 2007).

The Birnirk culture developed in northern coasts of Alaska and spanned the same time period as the Old Bering Sea and Okvik cultures. Hunting activities and tools were similar to those of the more southern Alaska cultures, including use of kayaks and *umiaks*, but are distinguished by the use of flat toggling harpoon heads. Sleds were used for the same purposes and by the same means. Utilitarian pottery pieces, such as lamps, were marked with impressed circular designs. Houses were square with driftwood or whalebone above-ground walls, plank-lined floors, and sod-covered roofs (Neusius and Gross 2007).

From the Birnirk culture developed the Thule culture which existed between 1050 BP and 400/250 BP. The complex of material culture attributed to this culture is also associated with the historic Eskimo and Inuit. Like the other cultures in the Thule Tradition, artifacts that characterize the Thule culture include bone, antler, and ivory tools, such as arrows, spears, and harpoon heads. However, in the Thule tradition the ratio of groundstone to other artifacts rose significantly to include about half of all stone tools found. Pottery was also used, but was tempered with gravel instead of the fibers used previously (Neusius and Gross 2007). The culture spread rapidly from northern Alaska across the Arctic, marked by the Sicco-type harpoon head, eventually reaching Greenland and once again displaying a cultural continuity for the majority of the Arctic culture region, similar to the Arctic Small Tool Tradition (Damas 1984a; Neusius and Gross 2007). The expansion was likely a result of people following bowhead whales. Dogsleds first appear with this culture, possibly as a result of open water hunting of bowheads which allowed for groups to amass large stores of food that would need to be transported back for storage at a settlement. In addition to whale hunting, seals, walrus, and birds were hunted from kayaks using *atlatls* and darts (Neusius and Gross 2007).

Pacific Coastal Alaska Traditions

The Ocean Bay Tradition (7000 – 4500 BP) is certainly present on Kodiak Island and possibly on the Alaskan Peninsula and Pacific Coast. It may be related to materials found on the Aleutian Islands. Ocean Bay sites are considered to be the earliest representations of maritime adaptations along the Alaska Pacific coast. It is notable for the use of tools made of ground slate, which were introduced into an assemblage dominated by flaked stone. The subsistence economy of peoples practicing this tradition was based on hunting of marine mammals and the pattern of site locations, situated on coastlines and near the ocean, is consistent with this activity (Neusius and Gross 2007).

The Kodiak and Aleutian Traditions developed out of the Ocean Bay Tradition around 4500 – 5000 BP and 5500 BP, respectively, and continued into modern

times (Dumond 1984; Neusius and Gross 2007). The Aleutian Tradition developed west of the Kodiak Tradition. Ground slate tools are absent in this tradition, at least until very late in the period, around 500 BP. Instead flaked tools are primarily relied upon. The tradition does share the use of oil lamps and similar bone tools with the Kodiak Tradition. Sea mammal hunting appears to have been important given their commonality at sites, along with land mammals, marine invertebrates, fish, and migrating and resident birds. Aleutian Tradition sites are typically large middens along the coast that were inhabited on a semipermanent basis. Given the archaeological evidence, it is believed that the people practicing the Aleutian Tradition are the ancestors of the modern Aleuts (Neusius and Gross 2007).

As insinuated by its name, the Kodiak Tradition is centered on the Kodiak Island area and is characterized by the use ground slate, differentiating it from the Aleutian Tradition (Dumond 1984). It is separated into two stages: the Takli stage (4500 – 3500 BP) followed by the Kachemak stage (3500 – 1000 BP). In the Takli stage the toolkit included slate lance or dart points, formed initially by sawing, oil lamps, and chipped stone similar to that of the Ocean Bay Tradition. Subsistence activities focused on hunting land and sea mammals as well as fishing, and settlements are situated in areas conducive to these activities. In the Kachemak stage ground slate tools continue to be used, but are instead initially formed by chipping. In addition to slate tools, oil lamps continue to be present in sites as well as labrets of stone and bone. A variety of bone tools occur, including the toggling harpoon which improved the success of maritime hunting (Neusius and Gross 2007).

Historic

Historic continuity of earlier cultural practices is prevalent in Alaska (Clark 1981; Neusius and Gross 2007). In fact, through the 19th century, some Arctic groups had not yet had contact with Europeans (Neusius and Gross 2007). Russian exploration of the region led to the fur trade with historic Alaskan native peoples (Damas 1984; Neusius and Gross 2007) and Russian Orthodox missionaries followed. The effect of these missionaries was not as extensive as the effect of Spanish missionaries further south. As the whaling industry grew in the region and ships began wintering in the Arctic, contact between the native Alaskans and Europeans increased. This in turn led to increased trade and ultimately dependence on the fur trade to obtain European goods. Such adaptations are only one of a few historic changes in the native economies of Alaska (Neusius and Gross 2007). Mining and oil development by Europeans of the Alaskan interior began during the historic period and have continued to affect the cultures of the region into modern times (Helm 1981a; Neusius and Gross 2007).

Euro American Contact

Vitus Bering, a Danish sailor, was commissioned by Peter the Great, the Czar of Russia, in 1725 to explore the region that is present-day Alaska. Bering

explored Greenland and the southwest coast, but did not explore present-day Alaska. His expeditions did heighten interest in the region because of the news he brought back to Europe of the wealth of furs and possibility of trading (Borneman 2003).

The Spanish were also interested in the region, partly out of concern that the Russians were going to settle that part of the continent. Spain also sent expeditions to the region but did not establish permanent settlement in Alaska (Borneman 2003).

The English were also early European explorers to the Alaska region. In 1776 Captain James Cook sailed the northwest coast of North America, mapping the inlet he discovered (named the Cook Inlet by George Vancouver) (Borneman 2003).

The first European settlement in Alaska was the Russian-American Company, established in 1784. The company was at the center of fur trade in Alaska, even though however the Russians never fully colonized the region.

Trade

Fur trade. Fur trapping and trading was one of the primary reasons Europeans were attracted to the region. The French, British, and Russians were all part of the fur trade in Alaska. The Hudson Bay Company and the Northwest Company had fur trading posts throughout Alaska, which lasted from the 1720s until it dwindled in the 1850s because of a diminishing animal populations (Neusius and Gross 2007; Borneman 2003).

Commercial Whaling and Fishing. Shore-based Eskimo whaling was long a tradition in coastal communities. Eskimo whalers were limited to taking whales near their villages when the animals migrated past on their annual round. Because of the huge quantity of meat and oil that successful whale hunting provided to a coastal village as well as the danger involved in a whale's pursuit, whaling and whalers had special significance for such communities. Ship-based whaling flourished during the 17th-19th centuries. Scandinavian, Dutch, English, Scottish, Russian and American whale fleets pursued the whales in the 19th century. Oil reduced from blubber and baleen were the primary commodities produced by this worldwide whaling industry (National Science Foundation 2007).

Salmon fishing was a mainstay to the Alaskan economy, with the first commercial salmon cannery built in 1878. Canneries were built throughout the southeast portion of Alaska, as well as in Cook Inlet and Bristol Bay (Borneman 2003). Salteries, which processed the salmon, packed and imported it in barrels, were also established. By 1911, the salmon population in Alaska was reduced, but by the 1920s, fishing was still considered the bedrock of the Alaskan

economy (Borneman 2003). Commercial fishing continues to be an important part of the local economy.

Missionaries. Russian Orthodox missionaries followed the fur explorers and traders to the region during the 1740s-1780s. They were most successful in southern Alaska, and their activities lasted into the 1800s (Neusius and Gross 2007).

Gold Mining. Although gold was first discovered in 1850 on the Kenai Peninsula by a Russian mining engineer, the discovery was not widely publicized (Borneman 2003). In 1897, the Klondike River was the site of another gold discovery which led to a major gold rush into eastern Alaska and the Yukon Territory. Many settlers and gold miners came to the area, establishing trails or sailing routes in order to reach the area. The gold boom also struck in other parts of Alaska, such as Fairbanks and Nome (Borneman 2003). Other minerals, such as copper and molybdenum were mined as well.

Oil. Oil was claimed in Alaska on the Iniskin peninsula in the 1890s. In 1898, the first Alaska wells drilled oil there, however there was not enough to support a full-scale, long-term production of oil (Alaska History and Cultural Studies 2008).

The first productive drilling of oil occurred at Katalla, just south of the Copper River Delta. In 1911, new wells in the area began to produce a significant amount of oil, which was recovered then processed at a refinery at Katalla. The cost of transportation and operating costs were high, but the yield of oil proved worthwhile. In the 1960s, oil companies bought exploration leases for work in the Cook Inlet and production of oil began (Alaska History and Cultural Studies 2008). Oil exploration, production and transportation continues to be the most important industry in Alaska.

Trans-Alaska Pipeline System. The system began in 1968 as a joint venture between British Petroleum, Atlantic Richfield, and Humble. It was completed in 1977 and is an 800-mile pipeline that transports oil from Prudhoe Bay south to Hickel Highway, across the Yukon and to Livengood and Fairbanks. It then crossed the Alaska Range at Isabel Pass and the Chugach mountains at Thompson Pass before dropping into the port of Valdez through the Keystone Canyon (Borneman 2003).

EuroAmerican Expansion

In 1812, the Russian hold on Alaska was becoming weak, as American hunters and trappers were encroaching on Russian territory. The settlement that gave Americans the right to trade fur only below the 55°N latitude was generally ignored, making the Russian position in Alaska even weaker. Eventually, the Russian American Company entered an agreement with the Hudson's Bay Company to allow British sailors passage through Russian territory. Russia

decided to sell its lands to North America, and in 1867, William H. Seward, the US Secretary of State, secured the purchase of Alaska from the Russians. Alaska became a state in 1959 (Borneman 2003).

Railroads. The Copper River and Northwestern Railroad, which was originally constructed to bring ore from the Wrangell Mountains to the Guggenheim smelter in Tacoma, Washington, constructed in 1911 (Borneman 2003). The railroad went through Kennecott, Bennett, and other cities that underwent a major growth spurt and a “boom” as they served the copper mines, miners, and served as railroad stops. The Great Depression and the fall in prices of copper, the railroad shut down and was no longer in use. The line was in use for only twenty-seven years (Borneman 2003).

The Alaska Railroad was established in April 1915. The line was to extend from Seward to Fairbanks, a seventy-two mile stretch. Completed in 1922, the rail line brought freight and passenger traffic to Alaska and serviced some of the most populated cities in Alaska, such as Seward, Anchorage, and Fairbanks. The line was instrumental in transporting military and civilian supplies and materials during World War II. The line has been upgraded several times and continues to be a transportation link (Alaska Railroad 2008).

Alaska Marine Highway. The period after World War II was a period of expansion for Alaska. One example is the Alaska Marine Highway. By 1963, three ships in the southeast region went into service, creating the Alaska Marine Highway, which ran regularly scheduled trips to the major towns along the Inside Passage (Borneman 2003).

Trails

Iditarod Trail. The Iditarod trail was a path originally used by Native American hunters and Russian explorers. In the twentieth century, gold seekers used the trail to reach the mines, and the trail was improved. Several towns such as Seward, Iditarod, and Nome grew up around the mining districts, where miners would buy supplies from local stores and markets and stay overnight in tents prior to going off to the mines. The trail begins in two places, at Seward and at Nome, and eventually met at the Iditarod Mining District. It was officially surveyed by the U.S. Army’s Alaska Road Commission in 1908. It was heavily used until 1924, but its use diminished as the use of airplanes became more common. In the 1960s, interest in dog sledding and use of the trail was revived and the first Iditarod race took place in 1967 (Bureau of Land Management 2007). The trail is now part of the National Trails Service of the National Parks System.

NORTHWEST COAST

The Northwest Coast culture region covers areas between the crest of the Cascades and the ocean from the Copper River delta and Yakutat Bay in Alaska south to the Winchuck River and Cape Mendocino in California (Figure 3-19).

The region does include parts of Canada, but since this part of the Pacific coast is not included in the project area, it is not discussed here. The region is highly varied and is divided into three subareas for purposes of discussion: North, South, and Central (Neusius and Gross 2007; Suttles 1990a). The project area encompasses part of the Northern subarea and all of the South and Central subareas.

USFS regions included in the Northwest Coast region include portions of Regions 5, 6, and 10. BLM District Offices included in the region include all or portions of the Medford, Coos Bay, Roseburg, Eugene, Salem, Spokane, and Anchorage offices.

Table I-2 identifies the Northwest Coast culture region languages and tribes that have been documented within the project area. Culturally, the Northwest Coast culture region is bordered by the Arctic to the north, the Plateau to the east, California to the south, and the Subarctic to the north and east.

Table I-2
Languages and Tribes of the Northwest Culture Region in the Project Area

| Languages (Linguistic Phylum; Culture Region) | Tribes |
|--|---|
| Athapaskan (Na-Dene) | Kwalhioqua, Clatskanie, Umpqua |
| Tlingit (Na-Dene) | Tlingit |
| Chinookian (Penutian) | Chinookans |
| Kalapuyan (Penutian) | Kalapuya |
| Kusan (Penutian) | Coosans |
| Takelman (Penutian) | Takelma |
| Yakonan (Penutian) | Alesa, Siuslaw |
| Wakashan (Undetermined linguistic phylum) | Makah |
| Salishan (Undetermined linguistic phylum) | Southwestern Coast Salish, Central Coast Salish, Southern Coast Salish, Tillamook |
| Chimakuan (Undetermined linguistic phylum) | Quilete, Chemakum |

Source: Suttles 1990b; Neusius & Gross 2007; Waldman 2000

A general chronology of the Northwest Coast has been developed based on developments in lithic technology and social organization (Neusius and Gross 2007). Similar to California and other coastal regions, the early prehistory of the Northwest Coast has been dramatically affected by post-glacial sea level rise, resulting in inundation of the coastline and altering coastal environments. The entirety of the Northwest Coast was ice-free as of 12,000 years ago (Neusius and Gross 2007; Suttles 1990a), although lands immediately adjacent to the Pacific Ocean were never glaciated. The region though is unique in that

its moist nature has led to excellent preservation in many saturated sites. Although a few sites and surface finds have been attributed to Paleoindian occupations, these are not definitive points of evidence for an early occupation of the Northwest Coast. The following outlines the general chronology of Northwest Coast (Neusius and Gross 2007).

- Paleoindian: pre-10,000 BP
- Archaic: 10,000 – 6400 BP
- Pacific: 6400 – 175 BP
- Early Pacific: 6400 – 3800 BP
- Middle Pacific: 3800 – 1800/1500 BP
- Late Pacific: 1800/1500 – 175 BP
- The Historic period then follows the Late Pacific Period.

CULTURAL HISTORY

Prehistoric

Paleoindian: Due to the above mentioned effects of deglaciation, much of the critical coastal areas where one would expect the earliest sites representing migration through the Northwest Coast into North America are under water (Neusius and Gross 2007). However, in general, sites older than 5000 BP are not considered abundant (Carlson 1990). Some Clovis points have been found in the region, but these are typically isolated surface finds, which makes their association with other artifacts questionable. The nearest accepted evidence of Paleoindian activity is a cache of points in the Plateau region on the opposite side of the Cascade Range (Neusius and Gross 2007). As in California, the scarcity of such artifacts in the Northwest Coast may be due to the rise of sea level and subsequent submersion of the coastline.

Archaic: Archaeological evidence suggests that Northwest Coast peoples of the Archaic Period existed in small, mobile populations with large territories. This results in primarily ephemeral sites for this period. Both terrestrial and marine resources, including salmon a basis of later diets, were exploited (Neusius and Gross 2007).

Four major technological complexes characterize the Archaic Period in the Northwest Coast culture region. These complexes occur concurrently in different areas as well as successively in the same area. These are: the Fluted and Stemmed Point Traditions, which spread between 10,950 – 9950 BP toward the coast along the Columbia River from interior North America, and the Pebble Tool and Microblade Traditions which spread southward along the coast and inland up river valleys, first appearing in the Northwest Coast between 9950 and 8950 BP (Neusius and Gross 2007; Carlson 1990).

The Fluted Point Tradition is poorly represented in this culture region, and as it is in other culture regions, is mostly documented via isolated and surface finds of fluted points. Unlike other regions, they are rarely associated with faunal remains or other artifacts. Given the relative lack of evidence for this tradition, it would appear that it did not last for very long in the Northwest Coast culture region. It is most likely derived from the Great Basin and transferred or migrated down the Columbia River and its tributaries (Carlson 1990).

The earliest sites in the Tlingit and Haida regions of northern Northwest Coast have Microblade Tradition components (Carlson 1990). Ground Hog Bay 2 and Hidden Falls are two sites within the project area in the Northwest Coast that are attributed to this tradition, the former, on the Chilkat Peninsula, being the oldest concurred upon site of the Microblade Tradition. It is thought that these two sites represent the spread of microblade technology from interior Alaska south (Neusius and Gross 2007). The technology continued to move southward through the Archaic and subsequent Pacific Period (Carlson 1990). Some sites in the region however may represent spread in the opposite direction, from the south to the north. The Microblade Tradition is characterized by microblades, microblade cores, pebble tools, and flakes, with bifaces being rarities (Neusius and Gross 2007). Sites with components representing this tradition are typically located where access and survival demanded developed water transport technologies and use of marine resources. Additionally, the inclusion of other point types and technologies in tool kits of some sites suggest influence from the Plateau to the east (Carlson 1990).

In the project area the Pebble Tool Tradition is present in archaeological sites from the Puget Sound south to the lower reaches of coastal rivers, however in totality the tradition reaches further north into Canada near the Queen Charlotte Islands. This tradition also has various local expressions that are referred to by other names (Carlson 1990). Bifaces, particularly stemmed leaf-shaped points, accompanied by pebble tools characterize this tradition (Carlson 1990; Neusius and Gross 2007). Additionally a bone and antler industry is present while microblades are absent. Some sites indicate an interface between the Pebble Tool and the Stemmed Point Traditions (Carlson 1990). Overall however, the Pebble Tool Tradition is more similar to assemblages found in the Plateau, Great Basin, California, and Southwest regions. One of the most important archaeological sites of this tradition is within the project area in The Dalles, Oregon along the Columbia River. This is a fishing site that spans the Archaic and all subsequent periods, into modern times, indicating the significant time depth of fishing in this area (Neusius and Gross 2007). The Pebble Tool Tradition began as a marine-adapted culture that spread upriver and into the mountains and interior of the Northwest Coast, most likely following salmon runs. Sites are typically situated along rivers where fishing, particularly of salmon, and terrestrial mammal hunting would have provided the major forms of subsistence resources, supplemented by marine resources. In general,

occupations of the Pebble Tool Tradition suggest a fishing and sea mammal hunting culture with sufficient technology to construct and use watercraft early on (Carlson 1990).

The Stemmed Point Tradition is primarily situated along the Columbia River and emanating from interior North America. In fact, there are several early Archaic Period sites along the eastern Northwest Coast boundary with the Plateau culture region. Representation of the technological tradition along the coast is rare. It is characterized by chipped stone crescents and long stemmed points. A focus on hunting typifies the associated cultural activities (Carlson 1990).

Several of the above patterns persisted into historic times. The disparate technologies suggest different cultural traditions with their own technologies existed within the cultural region of the Northwest Coast. However, between the time of their initial appearance in the region and 4950 BP (Early Pacific Period) the differences among the cultures using these early traditions were being homogenized as people adapted to the environment, populations grew, and relationships between groups expanded (Carlson 1990).

Pacific: During the Pacific Period the Northwest Coast region developed a variety of characteristics that distinguish it from neighboring culture areas and several of the Archaic technological traditions continue (Carlson 1990; Neusius and Gross 2007). This includes increases in populations leading to increased sedentism with cyclical rounds of permanent village sites with pithouses and later the characteristic wooden plank house. Economies were focused on aquatic resources particularly salmon in some areas. Storage of resources became important and the notable woodworking and art styles of the region developed during this period. All these developments point to an increasing social complexity of Northwest Coast tribes during the Pacific Period.

The Early Pacific Period is characterized by a lack of microblade cores seen during the Archaic, and use of bone and antler tools. Groundstone tools were replaced by chipped stone tools in many areas. Midden sites are larger in size and are denser in their assemblages compared to the earlier ephemeral Archaic sites. Economies were diverse, but a focus on seafood is apparent when looking at faunal assemblages and isotopic analyses of human bone from burials, which are commonly found for this period. Other evidence points to a developing emphasis on riverine resources as well. Burials and grave goods also provide evidence of achieved status of elites in populations. Other burial data suggest violence and conflict between groups, which is supported by the location of some sites in the northern subarea on bluff tops and other such defensible locations (Neusius and Gross 2007).

During the Middle Pacific Period, certain activities were intensified, especially fishing with the extensive use of nets and large fish weirs. Wooden storage boxes are first seen during this period signaling the importance of food storage

as populations continued to expand substantially. The characteristic wooden plank house makes its first appearance too during this time. Planks could be removed and re-established in other areas allowing some form of residential mobility. Incidence of violence continued to increase in the northern subarea of the region, while it appears to have been much less common in the southern areas. Social hierarchies developed throughout the region on individual and village levels and was now based on ascribed status, rather than achieved. There are even possible indications of slavery during this time. Art is rare during this time, but those examples that have been found foreshadow the characteristic styles recorded for the region (Neusius and Gross 2007).

If the Middle Pacific Period saw the early beginnings of historically recorded lifestyles of the Northwest Coast, the Late Pacific Period saw their full development and a peak in population numbers, represented by a high number of sites. Flaked stone tools are entirely replaced by bone, antler, and groundstone tools. Subsistence economies continued to become intensified, but not all were focused on salmon fishing. Groups appear to have focused on what was locally important to them. Throughout however, storage continued to be a mainstay of economies with continued use of wooden boxes and also baskets. There was greater use of nearshore and offshore resources as indicated by an array of fishing implements and tools for sea mammal hunting, including nets, weirs, traps, tackle with hooks, weights, lines, and toggling harpoons. Tools for woodworking are also prominent in archaeological assemblages, presumably a result of the focus on house construction, although they would have also been used for construction of bentwood storage boxes and canoes. Remains of plank houses are more common during this period as well, including whole ones at the Meier site near Portland, Oregon within the project area. Evidence for individual social stratification is not as apparent as previous periods based on the lack of in-site burials along the coast. Instead evidence for village hierarchies is based on the presence or lack of village-associated burial mounds, such as those in the Fraser River and Willamette Valley areas. It should be noted however, that there is evidence for social ranking within houses. Burials and village locations in defensive areas, such as bluff tops and built fortifications, provide evidence of increased violence throughout the Northwest Coast region. The distinctive Northwest Coast art style was fully developed in the Late Pacific Period, although there are fewer art objects found (Neusius and Gross 2007).

Historic

Early explorers were the first non-Native contacts in the Northwest Coast culture region. In particular, the fur trade brought much interaction between Europeans and native Northwest Coast populations. Trading posts were established in the region to facilitate such trade between the Native Americans, Russians, and other Europeans. A variety of artifacts are found in archaeological sites that were received as part of the fur trade. However, relations between the tribes and the new settlers were often hostile (Neusius and Gross 2007).

Euro American Contact

Spain and England sent explorers to the northwest coast region, during the 1770s. Russia also led expeditions to the region in 1741. Captain James Cook, a British sailor, landed in Northwest Coast region, and attracted fur traders and trappers with news of fur resources in area (Schwantes 1989; Hayes 1999). Fur traders and trappers from the America and Canada also found new overland routes to the Northwest Coast region from the east and north through various trails.

Trade

Fur. The discovery of sea otters during the explorations of the Northwest Coast region spurred a period of fur trading for export to Asian and European markets that lasted until 1850 (Neusius and Gross 2007). Permanent trading posts were established in 1799, first by the Russians at Tlingit, and then by the Americans, who established a post on the lower Columbia in 1811. Many fur trappers and traders from the United States and Canada found new routes to the region.

Mining. The discovery of gold in the Coast Range of Oregon and Washington in the 1850s brought settlers and gold miners to the area. In addition to gold, mined resources in the northwest included silver, copper, sand, salt, gravel, phosphate, and coal (Schwantes 1989). There was a significant coal mining industry east of the Seattle and Tacoma area and west of Ellensburg during the 1870s and 1880s. This coal mining industry in Pierce and King Counties, in the foothills of Mount Rainiere, had a typical boom and bust cycle that most other mining settlements of the time shared (Washington 2008).

Fishing, Timber, and Agriculture. The economic foundation of the Northwest Coast region came from the fishing, timber and agricultural industries. Commercial fishing became popular during the late-nineteenth century, with salmon being the most desired fish product. Canneries and salteries were established along the Columbia River.

The vast forests of the region were attractive to the timber industry. California mines, cities, and ships required huge amounts of lumber, and the deep waters and forested shorelines of Pacific Northwest offered the most convenient place to get these commodities. The availability of cheap river and ocean transportation allowed entrepreneurs access to world and domestic markets through Portland, Seattle and other ports. Docks and sawmills appeared to deliver wood products to the ships that sailed away to San Francisco and other Pacific ports. Farm products from the Willamette Valley, minerals from Idaho, and wheat from around Walla Walla all traveled to market via riverboats to the port cities.

Western Expansion

Trails

Oregon Trail. The Oregon Trail was a major route for trappers, traders and settlers traveling to the Pacific Northwest from the east. The Trail began as an unconnected series of trails used by the Native Americans. Fur traders expanded the route to bring pelts to trading posts in the early 1800s. The route extends roughly 2,000 miles west from Missouri toward the Rocky Mountains to the Willamette Valley. A trail to California digressed from the route in Idaho (Bureau of Land Management 2007). Several groups followed the route over time including large populations of settlers, moving from the eastern portion of the US to settle the west between 1800 and 1880s. (Bureau of Land Management 2007).

Missionaries used the trail during the 1830s, traveling along the Platte and Snake Rivers to settle churches in the Northwest. Mormons, headed toward Salt Lake in Utah, used the trail beginning in 1847, and the discovery of gold in California caused many gold miners to use the trail in 1849. It is estimated that four thousand emigrants followed the trail west in 1847 (Schwantes 1989), many in small caravans of wagons. Military posts and spur roads were established off the Oregon Trail. It was used as a cattle driving trail eastward for a brief time as well. The construction of the Central Pacific Railroad, connecting California to the rest of the continent in 1869, decreased use of the Oregon Trail and by the early 20th century, the trail was no longer used as a major transportation corridor, as railroad lines paralleled the trail (Bureau of Land Management 2007, Schwantes 1989).

Applegate Trail. This trail was used originally to link the Northwest Coastal area to Oregon. It crosses the Black Rock Desert, the High Rock Canyon, and into the Warner Mountains to Central California. The trail ends in Oregon (Bureau of Land Management 2007). This southern route of the Oregon Trail, established in 1846 by the Applegate brothers was considered a safer route to Oregon as it bypassed and avoided the obstacles of the Burnt River Canyon, the Blue Mountains, and the Columbia River (Webtrail 2007).

Cowlitz Trail. This trail is not on BLM or Forest Service land and has not been designated as a National Historic trail. It was used in 1839, to connect the Willamette Valley with the Puget Sound Basin. The trail was a muddy footpath in 1845, used to connect Fort Vancouver to South Puget Sound. Hudson's Bay Company traders used it as had Native Americans before them. The trail has disappeared throughout the years with the construction of roads over it (City of Tumwater, Washington 2005)

Lewis and Clark. This trail runs along the explorations of Meriwether Lewis and William Clark. The trail follows the Missouri River upstream, eventually reaching the Pacific Ocean at the mouth of the Columbia River. The route goes through Idaho and western Montana (USDA Forest Service 2003).

Railroads

The Northern Pacific Railroad was constructed in 1873, and by 1883, it was connected to Minnesota and the remainder of the eastern portion of the U.S. This rail line increased settlement and immigration to the area, as well as enabled railroad communities to be established. The railroad enabled the lumber and agriculture industries as raw materials could be transported from the Northwest Coast to more easterly regions of the United States.

Rivers and Ports

Large rivers and port towns of the northwest provided a crucial link between these remote territories and the outside world. The access provided by the Columbia River and its tributaries enabled shipment of goods to and from inland settlements. In the 1850s, timber mill towns began to develop in the Puget Sound area because of the deepwater anchorage that protected ships from Pacific storms (Schwantes 1989). These waterways enabled the industries of the northwest to supply the California coastal cities until the railroad boom of the 1880s.

Plateau

The Plateau culture region comprises the area drained by the Columbia and Fraser Rivers, with the exception of some areas within the Great Basin (Figure 3-20). In general, the area covers parts of British Columbia, eastern Washington, western and northern Oregon, the Idaho panhandle, and western Montana.

USFS regions included in the Plateau region include portions of Regions 1, 4, 5, and 6. BLM Offices included in the region include all or portions of the Spokane, Vale and Prinevale District Offices and Coeur d'Alene, Cottonwood, Missoula, Dillon and Butte Field Offices.

Table I-3 identifies the Plateau culture region languages and tribes that have been documented within the project area. Generally, Salish speakers are associated with the Northern Plateau, Sahaptin speakers with the south, Chinookan speakers with the west, Klamath-Modoc speakers with the southwest, and the Cayuse and Molala speakers with isolated areas of the region (Neusius and Gross 2007). Culturally, the Plateau culture region is bordered by the Northwest Coast on the west, the Plains on the east, the Great Basin on the south, and the Subarctic on the north. The Southern and Eastern Plateau subareas are within the U.S., while the Northern area is primarily in Canada.

The Plateau region has typically experienced cool climates since glaciers cleared from the area around 11,000 BP. However, the area has witnessed a period of warming since 2800 BP (Neusius and Gross 2007). Human occupation of the Plateau culture region began around the time of glacial retreat. A cultural chronology consisting of Early, Middle, and Late Periods, the Middle and Late

**Table I-3
Languages and Tribes of the Plateau Culture Region in the Project Area**

| Language (Linguistic Phylum) | Tribes |
|---|--|
| Salish (Undetermined linguistic phylum) | Coeur d'Alene, Flathead and Pend d'Oreille, Kalispel, Middle Columbia River Salishans, Northern Okanagan, Lakes, and Colville, Spokane, Thompson |
| Sahaptian (Penutian) | Umatilla, Walla Walla, Nez Perce, Palouse, Western Columbia River Sahaptins, Yakima and Neighboring Groups |
| Chinookan (Penutian) | Wasco, Wishram, Cascades |
| Klamath-Modoc isolate (Penutian) | Klamath, Modoc |
| Molalla isolate (Penutian) | Molala |
| Cayuse isolate (Penutian) | Cayuse |
| Kutenai isolate (Macro-Algonquian) | Kootenai |

Source: Neusius and Gross 2007; Waldman 2000; Walker, Jr. 1998a

Periods being divided into subperiods, has been developed based on archaeological and ethnographic research (Chatters and Pokotylo 1998; Neusius and Gross 2007).

- Early Period: 11,500 – 8000 BP
- Middle Period: 8000 – 4000 BP
- Early Middle Period: 8000 – 5300 BP
- Late Middle Period: 5300 – 4000 BP
- Late Period: 4000– 230 BP
- Early Late Period: 4000 – 2500 BP
- Middle Late Period: 2500 – 1500/1000 BP
- Late Late Period: 1500/1000 – 230 BP

Area-specific culture chronologies for the Southern Plateau include Period I (11,500 – 6950/5950 BP), Period II (6950/5950 – 3850 BP), and Period III (3850 – 230 BP) (Ames, et al 1998). Within the Eastern Plateau, prehistory has been divided into a three-phased chronology including Early Prehistoric Period (pre-9950 – 6950 BP), Middle Prehistoric Period (6950 – 1450 BP), and Late Prehistoric Period (1450 – 230 BP) (Roll and Hackenberger 1998). It should be noted that areas within these subregions exemplify their own characteristics during these periods and researchers have developed additional subperiods and phases.

Archaeological research has uncovered specific common cultural patterns in this region including (Neusius and Gross 2007; Waldman 2000; and Walker, Jr. 1998b):

- Linear settlement patterns along rivers;
- Diverse subsistence base of fish, game, and roots;
- Complex fishing technology;
- Inter-marriage and cooperative use of subsistence resources among groups;
- Institutionalized trading throughout the area;
- Village and band levels of social organization; and
- Relatively uniform mythology, art styles, and religious practices.

CULTURAL HISTORY

Prehistoric

Early Period: There is little archaeological evidence for very early human occupation of the Plateau culture region compared to subsequent time periods. In fact, only one extensive Paleoindian Clovis (11,500 – 10,800 BP) archaeological site has been found. All other archaeological evidence of human occupation during this period is found in surface scatters of artifacts and single, isolated artifacts (Chatters and Pokotylo 1998; Neusius and Gross 2007).

Post-Clovis Early Period inhabitants of the Plateau region appear to have lived in small, mobile hunter-gatherer groups (Chatters and Pokotylo 1998; Neusius and Gross 2007). Groups were organized into semi-permanent villages with temporary subsistence camps at higher elevations. Winter villages were typically located along main rivers, while summer villages were established at the higher elevations (Chatters and Pokotylo 1998; Waldman 2000; Walker, Jr. 1998b). A wide variety of subsistence resources were used including riverine resources and large game. Within most sites located along rivers, fishing is demonstrated by artifact assemblages to be the most important subsistence activities. The majority of sites from the Early Period are open sites where large game and hunting implements dominate the artifact assemblage. However, fish bones are still quite common in these assemblages (Neusius and Gross 2007).

Projectile points are also very common artifacts within the region. Specific styles can provide excellent temporal markers for Plateau archaeological sites and they vary spatially (Neusius and Gross 2007). Other artifacts that are common to Plateau region Early Period archaeological sites include a variety of stone tools (cobbles, bifaces, scrapers, graters, burins, and bola stones), bone tools (points, awls, and needles), beads, and antler wedges. Sometimes

millingstones, anvil stones, abraders, and antler flakers are also found (Neusius and Gross 2007).

There is spatial variation of settlement and artifacts patterns within the Early Period. Typically, sites in the northern portion of the Plateau region have limited assemblages that include microblades and flake tools. Meanwhile southern Plateau region sites appear to be short-term occupations with small, low-density artifact assemblages lacking microblades. Towards the end of the Early Period, a pattern of increased numbers of expedient tools emerges (Chatters and Pokotylo 1998; Neusius and Gross 2007).

Middle Period: Settlement patterns during the Middle Period are mostly within low-elevations. However, near the end of the period there is evidence in the eastern Plateau of limited collecting activities in higher elevations (Neusius and Gross 2007).

The Early Middle Subperiod is largely a continuation of Early Period cultural patterns with some distinct variations (Chatters and Pokotylo 1998; Neusius and Gross 2007). In the northern Plateau people practiced a foraging strategy hunting for deer, elk, and other game, as well as fish and birds. Given this dominant subsistence pattern, it is no surprise that pithouses are absent from northern Plateau sites of this age. There is also evidence in the northern Plateau of local populations being replaced by Salishan speakers from the coast, possibly a result of these coastal populations following salmon upstream (Neusius and Gross 2007). Meanwhile, in the southern Plateau region tool technology became more simplistic and expedient (Chatters and Pokotylo 1998; Neusius and Gross 2007). Subsistence remains from sites indicate use of an optimal foraging strategy, where more productive foods are obtained over less productive ones (Neusius and Gross 2007). Throughout the region a new burial pattern, the Western Idaho burial complex, appears between 6000 and 4000 BP. The pattern incorporates multiple interments in a single burial, and sometimes includes cremations. The burials are located away from habitation sites and include a wide variety of grave goods that appear to indicate long-distance trade (Neusius and Gross 2007).

The mobile hunter-gatherers of the Early Middle Subperiod became more sedentary during the subsequent Late Middle Subperiod (Chatters and Pokotylo 1998; Neusius and Gross 2007). Artifact assemblages and other patterns of the Early Middle Subperiod are generally the same during this later subperiod. The occurrence of pithouses at Middle Period sites and their location in areas where a majority of resources can be collected are considered indicative of sedentism. Most often the pithouses will be found close to the steppe-forest margins of the lowlands (Chatters and Pokotylo 1998; Neusius and Gross 2007). A drop in sites with pithouses occurs however near the end of the Late Middle Subperiod, possibly indicating a drop in the population, particularly in the southern Plateau region. Throughout the period though there is an increase faunal diversity,

riverine resources, and trade goods compared to the Early Middle Subperiod. In fact, salmon storage begins to appear in the northern Plateau, indicating a very high reliance on riverine resources (Neusius and Gross 2007).

Late Period: The ethnographically recorded traits of Plateau tribes formed during the Late Period. The period also witnessed the introduction of the horse to the region.

Once again, sedentism in the Plateau region increases during the Early Late Subperiod, signified by the presence of food storage at permanent camps with pithouses and intensive use of resources such as salmon (Chatters and Pokotylo 1998; Neusius and Gross 2007). In the southern Plateau region, this was the first reappearance of pithouses after several centuries (Chatters and Pokotylo 1998). Studies of human skeletons from this time period have shown that more than half the protein in individual's diets came from marine resources (Neusius and Gross 2007). This change in subsistence patterns may partially be due to a changed environment during this subperiod. With cooler, moister climate at this time, salmon availability increased as well as forest cover, which led to less large game populations. It should be noted that the people of the Eastern Plateau remained somewhat mobile (Neusius and Gross 2007). Reliance on trade may have decreased during this time, as indicated by an increase in stone tools of locally available materials and the development of local regional styles of projectile points (Chatters and Pokotylo 1998; Neusius and Gross 2007).

Sedentism continued to increase during the following Middle Late Subperiod. Also occurring during this time was the development of a hierarchical social organization. Traded exotic items are found in concentrations in some elaborate burials of this time, indicating the developing social hierarchy, along with other luxury items, distinct variations in house size, and incidents of violence. Large pithouse villages are most common in the lower reaches of large rivers (Neusius and Gross 2007). Although salmon fishing remained a staple of people's diets, the importance of root crops increased during the Middle Late Subperiod and people expanded their collection activities into the uplands (Chatters and Pokotylo 1998; Neusius and Gross 2007). A boom in bison populations in the Columbia Basin may have attracted Plateau peoples to this arid part of the region where large bison kill sites are found (Neusius and Gross 2007). The bow and arrow was adopted during this subperiod between 2400 and 2100 BP in the south and around 1500 BP in the north (Chatters and Pokotylo 1998; Neusius and Gross 2007).

Many of the Middle Late Subperiod archaeological characteristics continue into the Late Late Subperiod of the Plateau region. However, evidence points to a decline in population, with the exception of the Upper Columbia River, and perhaps an evening out of the social hierarchy (Chatters and Pokotylo 1998, Neusius and Gross 2007). Use of the uplands appears to have diminished during this time as well (Chatters and Pokotylo 1998). There is also evidence of

population migrations within the region during this late time, establishing the historically recorded tribal territories. Such movements are most often indicated by changes in house form and artifacts (Chatters and Pokotylo 1998; Neusius and Gross 2007).

Historic

Euroamerican influences began to have a major effect on the native cultures in the Plateau region between 1600 and 1750 AD. Explorers and traders brought disease, new trade goods, market economies, introduction of the horse, and missionization. Epidemics appear to have infiltrated the Plateau from the Northwest Coast as explorers moved inland. Trade and kin relations between the regions and within the Plateau only encouraged the spread of the diseases. Burial patterns were altered in response to these widespread deaths, including cremation, canoe burials, and burials in cedar cists, fenced enclosures, and log enclosures (Neusius and Gross 2007; Walker, Jr. 1998b).

Native trade became more long range during the historic period, mostly due to the introduction of the horse. Plateau peoples even traded with non-Native Americans in New Mexico, along the Upper Missouri River, and in the California Central Valley. Trading within the Plateau culture region typically took place at major trading locales, like The Dalles and Kettle Falls, where trade was important prehistorically (Neusius and Gross 2007). The horse also led to increased warfare among tribes and culture regions as mounted warriors had a distinct advantage over those on foot. Warfare was most common along the boundary between the Plateau and the Plains culture regions where war chiefs and warrior societies developed (Neusius and Gross 2007).

Euro American Contact

European contact with Native Americans in the Plateau region may have occurred as early as the sixteenth century with Russian and Spanish explorers. An early documented contact between the Euro-American and Native Americans was the expedition of Lewis and Clark in 1805 (Walker and Sprague 1998). Missionaries were also among the early non-Native settlers to the region. The first permanent missionaries established in the Oregon area were Presbyterian, who converted the Nez Perce tribe from 1836 to 1847. Jesuit missionaries arrived in 1838, and Mormon missionaries in Idaho by spring 1860. Catholic missionaries also set up churches in the region, beginning in 1838, and by 1855, there were Mormon missions in the Plateau region (University of Washington 2007).

Trade

The Fur Trade. Fur trading attracted Euro-American settlers to the region from the 1790s until 1846. (Schwantes 1989). The fur trade began as maritime fur trading and then land-based fur trade reached the region by the mid-1890s (University of Washington 2007). The fur trade played an important role in the history of the region as it facilitated contact between Russian, French and British

traders and Native Americans. Native Americans participated in this industry by selling or bartering pelts to the European traders who then resold them in other markets, such as China (University of Washington 2007).

One of the oldest and most best known fur trading companies in the area was the British Hudson's Bay Company, established as early as 1670 which controlled the fur trade throughout much of North America. The most popularly traded fur was the beaver and sea otter. Fur trading companies such as the Hudson's Bay Company established forts and posts and devised interior routes of travel which had lasting impacts for settlers to the region. Fur traders also used local natural resources such as timber, fish, and farmland which showed future settlers how the area could be used for sustenance. The Hudson's Bay Company guided the policies of the area, and most native American plateau peoples were under the administration of the company until that time, although the region did not have many Euro-American settlers until 1846 (Walker 1998). Thousands of settlers came to the region by 1846.

Competing fur trading companies established themselves in the area in the 1780s (Schwantes 1989). For example, the North West Company had a fort where the Columbia and Walla Walla Rivers met in 1818, sending fur trappers into the Snake River region until 1821 (Schwantes 1989). The company successfully opened the interior of Oregon but was eventually absorbed by the Hudson's Bay Company (Schwantes 1989).

Mining. Mining has been a part of the Plateau region history since the 1850s when gold was discovered in several locations in Southern Oregon (Schwantes 1989). Discoveries of gold in Idaho and Montana in the 1860s gave way to a large flow of settlers to the region. Gold was discovered in the Plateau region on Gold Creek, a tributary of the Clark Fork River in Montana in 1860 (US Forest Service 2007). The discovery of gold triggered an influx of miners into the Plateau region in large numbers, mining for not only gold but silver, lead, iron, copper, salt, sulphur, mica, marble and sandstone in areas such as present-day Idaho, Washington, and Montana (Idaho State Historical Society 2007).

Agriculture and Fishing. Farming, fishing, logging, and ranching were other economic mainstays in the Plateau region. Hudson's Bay Company was among the first to develop the region's agriculture, timber and marine resources (Schwantes 1989). Logging became an economic mainstay. Thousands of acres were dedicated to orchards producing prunes, walnuts, filberts, and other fruit and nut crops.

Salmon was the primary product for fisheries in the region, although oysters, clams, shrimp and halibut were also caught and sold commercially (Schwantes 1989). During the 1820s through the 1860s, numerous fisheries and canneries were established along the Columbia River. Eventually, the salmon population was depleted because of over-fishing. In the twentieth century, the salmon

population was further inhibited by the construction of the Grand Coulee Dam in 1941, which was constructed without fish ladders, and the Bonneville Dam, constructed in the 1930s, which altered the fisheries and opened new areas to agriculture and ranching through irrigation and flood control (Schwantes 1989). Although conservation measures were put into place in later years, the salmon population was not fully restored because of overfishing, agricultural diversion and hydroelectric (damming) activities (Schwantes 1989).

Agricultural production of wheat and ranching of cattle were other economic activities in the region. Crops such as wheat, nuts, fruit, and hops were among those grown in the area, beginning in the mid-1800s. Western Oregon saw the planting of a wider range of crops such as hops for beer brewing, flax for making linen, and hemp for rope and paper. Irrigation and transportation improvements allowed expansion of agriculture and the development of large-scale fruit orchards between 1905 and 1915 (Oregon Secretary of State 2007). Logging was also an economic mainstay, and with the advent of the railroad, lumber could be hauled to steam-operated mills along the railways. The region was shipping large portions of its timber by railroad to a quickly growing U.S. population by the late 1800s (Oregon Secretary of State 2007). The flat farmlands of the region were also used for cattle and sheep raising, and cattle were run from California, through the Willamette Valley and over the Oregon Trail (Schwantes 1989). Cattle were raised in eastern Oregon to provide meat to feed gold miners in the 1860s (Oregon Secretary of State 2007).

Western Expansion

Originally Spain, Great Britain, Russia, and the United States each claimed the land encompassing the Plateau and northwest coast regions. Claims were settled by treaties and diplomacy over the course of 30 years in the first half of the 19th century. A continuous flow of American settlers to the region led to the establishment of the Oregon Territory in 1848. This was followed by the Washington Territory in 1853, Idaho Territory in 1863 and Montana Territory in 1864 (Schwantes 1989). These territories secured American position in the region. Military presence increased in the Plateau region with the establishment of several forts including: Fort Dalles (1850), Fort Cascades (1853), Fort Walla Walla (1856) and Fort Klamath (1863) (Beckham 1998). The Plateau region was further settled after 1859 when treaties opened the area east of the Cascade Mountains for settlement.

Oregon Trail. The Oregon Trail was used by settlers traveling to the Plateau Region or to pass through the area on their way to more westerly points. The Trail began as an unconnected series of trails used by the Native Americans. Fur traders expanded the route to bring pelts to trading posts in the early 1800s. The route extends roughly 2,000 miles west from Missouri toward the Rocky Mountains to the Willamette Valley. A trail to California digressed from the route in Idaho (Bureau of Land Management 2007). Several groups followed the route over time including large populations of settlers, moving from the

eastern portion of the US to settle the west between 1800 and 1880s (Bureau of Land Management 2007).

Missionaries used the trail during the 1830s, traveling along the Platte and Snake Rivers to settle churches in the Northwest. Mormons, headed toward Salt Lake in Utah, used the trail beginning in 1847, and the discovery of gold in California caused many gold miners to use the trail in 1849. It is estimated that four thousand emigrants followed the trail west in 1847 (Schwantes 1989), many in small caravans of wagons. Military posts and spur roads were established off the Oregon Trail. The trail was the major connection between the east and western portions of the US. It was used as a cattle driving trail eastward for a brief time as well. The construction of the Central Pacific Railroad, connecting California to the rest of the continent in 1869, decreased use of the Oregon Trail and by the early 20th century, the trail was no longer used as a major transportation corridor, as railroad lines paralleled the trail (Bureau of Land Management 2007; Schwantes 1989).

Railroads. The completion of the Northern Railroad in 1883 furthered population growth and economic development of the Plateau region. The farming and agriculture industries benefited from the construction of the railroad because it allowed for transportation of crops to eastern states, and farming equipment manufactured in the eastern states were shipped to the Plateau territories. The construction of the railroad supported the logging industry as well because steam engines were used to export lumber to mills and logging could be done in rugged areas that were inaccessible prior to the railroad (Oregon Secretary of State 2007).

GREAT BASIN

The cultural region of the Great Basin is based on the hydrographic region of the same name, but is extended to include the area between the Sierra Nevada and the Rocky Mountains (Figure 3-17). In general, the area covers most of Nevada and Utah, parts of Oregon and Idaho, eastern California, western Colorado, and western Wyoming. Like other culture regions, the Great Basin is varied in landform and climate with high peaks overlooking deep valleys with broad and arid floors. These different environments within the region require a variety of adaptations that have resulted in diverse cultural traditions (Neusius and Gross 2007).

USFS regions included in the Great Basin region include portions of Regions 1 through 6. BLM Offices in the region include all or portions of the Elko, Ely, Battle Mountain, Carson City, Winnemucca, Las Vegas, Vale, Burns, Lakeview and Pringle District Offices as well as Salt Lake, Filmore, Cedar City, Eagle Lake, Surprise, Bishop, Jarbidge, Owhhee, Bruneau, Burley, Pocatello, Shoshone, Challis and Upper Snake Field Offices.

All ethnographically recorded Great Basin culture region tribes spoke languages of the Uto-Aztecan family (Aztec-Tanoan Phylum) (D'Azevedo 1986a; Waldman 2000). The one exception are the Washo of northern Nevada and northeastern California whose language is often classified as Hokan (Neusius and Gross 2007), but bears no strong relation with any other language. Numic is the branch of the Uto-Aztecan language family that includes many of the languages spoken by Native American peoples traditionally living in the Great Basin, Colorado River basin, and southern Great Plains. Culturally, the Great Basin culture region is bordered by the Plateau to the north, California to the west, Southwest to the south, and the Great Plains to the east.

A general chronology of the Great Basin has been developed, however the region exemplifies an Archaic stage for nearly all of prehistory. The following outlines a general chronology of the Great Basin culture region (Neusius and Gross 2007).

- Pre-Archaic: pre-9000 BP
- Archaic: 9000 – 500 BP
- Early Archaic: 9000 – 4000 BP
- Middle Archaic: 4000 – 1500 BP
- Late Archaic: 1500 – 500 BP
- The Protohistoric and Historic period then follows the Late Archaic.

CULTURAL HISTORY

Prehistoric

Pre-Archaic: As in other culture regions, evidence is sparse and scattered for early occupations prior to the Archaic in the Great Basin culture region. Such data are found primarily in the form of isolated fluted points, similar in form to Paleoindian evidence in the Great Plains, on the ground surface, particularly in Utah and the western Great Basin (Jennings 1986; Neusius and Gross 2007). Only one big game kill site has been confidently identified and attributed to this period and that was in Idaho (Jennings 1986). Several important, pre-Archaic sites representing other activities have been found in caves of the region. Other forms of data are less credible and comprised of the bones of extinct animals without direct association to man-made artifacts. The accepted forms of evidence suggest that sheep hunting in the Great Basin culture region has a time depth at least as far back as the pre-Archaic. Additionally, lithic sourcing of tools from this period suggest that mobility and foraging patterns were established at this early time, although they did change throughout time with changes in resource distributions (Neusius and Gross 2007).

Archaic: Much of the early work on Archaic Great Basin occupation focused on cave sites and led to a biased inventory and understanding of the region's prehistory. Once researchers began to focus on other topographic areas, new patterns of distributions and typologies began to surface. Surveys in Surprise Valley of northeast California for instance, demonstrated that semi-subterranean pithouses in substantial base camps were situated in valleys while temporary camps were found in varying settings from lakeshores to mountains.

The Western Pluvial Lakes Tradition developed in during the later years of the pre-Archaic and into the Early Archaic of the western Great Basin between 12,000 and 7000 BP. Sites of this tradition are typically located along pluvial lake margins, such as Lake Mohave in southern California and Lake Lahontan in northern Nevada. However, points associated with this tradition have been found in other environmental settings, suggesting the suitability of their use in other areas. Some researchers believe that the Western Pluvial Lakes Tradition represents adaptations suited to acquiring lakeside or riverine resources left over from the Pleistocene, before the lakes and associated rivers of the culture region dried. Others believe the tradition is a more focused hunting way of life (Neusius and Gross 2007).

In the southwestern Great Basin, the Pinto Period of the Early Archaic developed between 7000 and 4000 BP, immediately following the drying of the region's pluvial lakes. Although generally being seen as subsequent to the Western Pluvial Lakes Tradition, some artifacts of the Pinto Period resemble the form of those attributed to the earlier tradition. This suggests at least some continuity in the region. It should be noted however that several artifact types were added to Pinto site assemblages. The Lahontan Basin includes many Early Archaic sites of this kind. Many are cave sites that were used when water was available in Lahontan Lake. Very few are believed to be residential sites; most were used for burials and caches. Food caches such as these served as forms of storage, eliminated the need for transport, and helped to even out the availability of food across the desert landscape (Neusius and Gross 2007).

The Early Archaic of the eastern Great Basin is divided into three subperiods: Bonneville (11,000 – 9500 BP), Wendover (9500 – 6000 BP), and Black Rock (6000 – 1500 BP). Only a few sites have been found to have been occupied during the Bonneville subperiod. However, what evidence has been found seems to point to a connection to the Western Pluvial Lakes Tradition to the west. Some researchers have suggested that Bonneville sites may represent a transition period between big-game hunting and more plant-oriented subsistence strategies.

More sites have been found and attributed to the Wendover subperiod. Sites are found in a wide variety of environments, indicating a very mobile settlement pattern at this time, likely changing locations with the seasons and using a greater variety of plants. Cave sites from this period include well-preserved

plant remains and evidence of the continued use of large game, killed using the *atlatl*.

There was an increase in the number of sites during the Black Rock subperiod corresponding with an increasingly arid environment. There was also a shift in site locations to upland areas that were previously less frequently occupied. It is thought that the changes exhibited during this period can be attributed to the change in climatic conditions of the eastern Great Basin. The Black Rock subperiod extends into and through the subsequent Middle Archaic (Neusius and Gross 2007).

During the Middle Archaic, an increase in the amount of local obsidian in archaeological sites is thought to indicate a decrease in mobility during this period. In southwestern Great Basin the Gypsum Period developed in a climate that was moister, leading to the filling of some desert lakes and extensive marshlands. This was a time of intensive occupation in the Mojave Desert and diversification of subsistence activities. The area east of Barstow in the Mojave Desert has yielded important archaeological sites that have provided data leading to greater understanding of this period. Split-twig figurines are an interesting artifact found in northern Arizona, Nevada, Utah, and California. Made of split twigs, the figurines are of stylized quadrupeds thought to be used in hunting rituals. Rock art depicting quadrupeds and found in the same regions are also thought to be a part of such rituals. The Coso Range is well known for such depictions (Neusius and Gross 2007).

As noted above, the Black Rock subperiod continued from the Early Archaic through the Late Archaic in eastern Great basin. The bow and arrow was introduced in this region during the Middle Archaic years of this period. By the end of this period the region had returned to more moist conditions (Neusius and Gross 2007).

Once the Late Archaic commenced the climate had returned to more arid conditions. In southwestern Great Basin the Saratoga Springs (1500 – 800 BP) and Shoshonean Periods (800 BP – contact) developed. The Saratoga Springs Period is similar to the earlier Gypsum Period, but with smaller projectile points. This is thought to indicate the introduction of the bow and arrow in the region. Various parts of the southwestern Great Basin exhibit influences from their neighboring culture regions during this time. One of the more notable interactions occurred in southern Nevada and southeastern California with the Southwestern Anasazi. Influence of the Anasazi is seen in pottery of the Mojave Desert. Evidence of their physical presence in the region between 1300 and 1100 BP has been found at the turquoise mines of Halloran Spring which were then used by the Hakataya of the Southwest and then the Southern Paiute of the Great Basin (Neusius and Gross 2007).

The Shoshonean Period is marked by the introduction of Desert Side Notched points and brownware pottery. This would be concurrent with the end of the Anasazi occupation of southern Nevada. Trade with coastal people becomes evident. Many Antelope Valley and upper Mojave River village sites appear to have been positioned along trade routes and played a major role in the movement of goods. The Shoshonean Period also marks the spread of Numic speakers out of the southwestern Great Basin. However, there is debate as to whether the Late Archaic Shoshoneans are the same as the Numic-speakers that occupied almost all of the Great Basin at the time of European contact. This is because of a noted discontinuity between ethnographically recorded Numic speakers and the archaeological sites of the Shoshoneans (Neusius and Gross 2007).

In northwestern Great Basin, Rose Springs and Eastgate points, indicating adoption of the bow and arrow, are seen as markers of the Late Archaic. Lithic technology also changed to focus on expedient production of simple flake tools made from local materials. Subsistence activities became more diversified here during this time as more ecological zones and resources were exploited. Additionally, smaller game became increasingly important (Neusius and Gross 2007).

The Late Archaic of the eastern Great Basin is attributed to what is called the Fremont Period. Although Fremont patterns are first seen in the last 100 years of the Middle Archaic the majority of the time it covers (1600 – 700 BP) is in the Late Archaic. Sites attributed to this cultural period are found in the area between southern Idaho in the north, the Colorado River in the south, northwestern Colorado in the east, and eastern Nevada in the west. Generally sites of this area during the Fremont include growth of maize, sometimes associated with irrigation ditches, plain grey ceramics, small-sized projectile points, one-rod-and-bundle coiled basketry, Utah metates, broad-shouldered anthropomorphic figures found as clay figurines or in rock art, and moccasins. Village sites are often comprised of pithouses and adobe architecture and caves were also used for habitation and storage. For some sites, hunting and gathering continued to be a primary source of subsistence rather than concentrating on maize cultivation. It is thought that the people of the Fremont region and period may have combined with the later Numic speakers of the Great Basin, but there is significant evidence that would suggest the Fremont peoples moved into the Great Plains as Numic speakers expanded into the Great Basin (Neusius and Gross 2007).

Influence from both the Southwest and the Great Plains culture regions are often seen in the area of the Fremont. Five regional variants have been identified for the Fremont Period: Uinta, San Rafael, Parowan, Sevier, and Great Salt Lake. The Uinta variant of the Uinta Basin on the Colorado Plateau of northeastern Utah appeared between 1350 and 1050 BP. Sites of this region are characterized by pithouses with isolated storage rooms built on rock ledges

being the only aboveground structures. Subsistence focused on hunting small and large game and collecting plants. Uinta Fremont sites are typically located on knolls, buttes, and creek slopes (Neusius and Gross 2007).

The San Rafael Fremont variant is situated on the Colorado Plateau just south of the Uinta variant and east of the Wasatch Range. Sites are typically small, but with the same habitation and storage features, often made of stone, as seen in the Uinta region. Small caves and rockshelters are also sometimes used for storage or habitation. It appears maize occupied a more prominent place in the San Rafael Fremont subsistence spectrum, but wild foods were also important (Neusius and Gross 2007).

To the west of the San Rafael region is the Parowan Fremont in southwestern Utah. Settlements are large and consist also of pithouses and storage features, but here made of adobe. Such sites are typically found on valley floors of the region where water is available. Instead, projectile point styles and several types of bone artifacts distinguish the variant from its neighbors. Like the San Rafael, maize cultivation with irrigation appears to have been central to subsistence practices, but supported with hunting and wild plant gathering (Neusius and Gross 2007).

The Sevier Fremont regional variant is north of the Parowan variant and east of the Uinta variant, in central western Utah and adjacent parts of Nevada. Sites on the eastern edge of the region are thought to have been permanent settlements near marshes while sites in the western portion of the region are thought to have been seasonal sites or camps. The sites in the region of Sevier Fremont are typically small and comprised of a few pithouses with adobe surface rooms. However, architecture and artifact styles are variable throughout the region (Neusius and Gross 2007).

North of the Sevier region is the Great Salt Lake Fremont variant around the Great Salt Lake and north into southern Idaho. Artifact types of this variant differ from those found in other Fremont sites. Most sites of the Great Salt Lake variant were seasonal and lacked masonry. Caves were often used as campsites. Wild crops instead of maize were emphasized along with hunting (Neusius and Gross 2007).

The spread of the Numic speakers into the eastern Great Basin is marked by distinctive brownware pottery and utilization of a variety of wild seeds. Environmental modifications by humans have also been documented, including making bow staves by scoring juniper trees, which would then leave a scar on the tree, and creating controlled burns to promote production of seed plants. Many researchers believe this spread was rapid and began as recently as 950 BP. It would have originated in the southwestern Great Basin culture region in the vicinity of southeastern California, but did not expand into the eastern areas

until after Fremont characteristics disappeared. However, the why and how of this spread is not well understood by archaeologists (Neusius and Gross 2007).

Historic

The Great Basin region was one of the last areas to experience contact between Native American populations and Spanish and European explorers. Euroamerican populations were comparatively small following contact so that Native American lifeways were able to continue relatively uninfluenced. The introduction of the horse however brought about some of the most notable changes, similar to other culture regions. The horse allowed for more efficient transportation across the region and into neighboring regions. However, in areas where vegetation was too sparse to support grazing horses, the animals were instead seen as a source of food. European contact did increase somewhat as the fur trade and migrants headed west entered the region. Conflicts were sometimes violent, but often the more important impacts of these contacts were on the productive habitats and traditional subsistence practices of the region (Neusius and Gross 2007).

Euro American Contact

The Great Basin region remained largely unexplored by Europeans until 1776 and 1777 when Spanish priests, Fathers Dominguez and Escalante, explored Utah and the Colorado Plateau. The area was not explored in any major way again until the 1840s, after a long period of nominal Spanish and Mexican rule. The vast arid expanse and lack of conspicuous resources inhibited interest in settlement and development. However, large numbers of settlers and travelers passed through the Great Basin on their way to California or Oregon, especially after gold was discovered in the 1848. The migration of Mormon settlers to Utah beginning in 1846 brought the first large numbers of American settlers to the Great Basin region (Neusius and Gross 2007).

Trade

Mining. The discovery of gold during the historic period first occurred in the Great Basin area in 1859 at the Comstock Lode near Virginia City in Nevada. Silver was discovered in the Humboldt Mountains in 1860 (Neusius and Gross 2007). Mining opportunities of gold, silver, copper, coal, and tungsten spurred immigration to the Great Basin as well as travel through the area on the way to California.

Ranching and farming. Ranching and farming has historically been a strong economic staple to the Great Basin region. Extensive ranching and farming began as an economic alternative to mining. Several legislative acts such as the Homestead Act of 1862, Desert Land Act of 1877, and the Taylor Grazing Act of 1934 attracted settlers with the promise of inexpensive land. The Homestead Act alone transferred more than 270 million acres of land from Federal to private ownership (National Park Service 2006). In 1877, the Desert Land Act was passed by Congress to encourage and promote the economic development

of the arid and semiarid public lands of the Western United States. Through the Act, individuals could apply for a desert-land entry to reclaim, irrigate, and cultivate arid and semiarid public lands (Bureau of Land Management 2004). The Taylor Grazing Act of 1934 assisted farmers and ranchers in acquiring land or increasing their land holdings through the ability to graze on public lands by way of permit. The Taylor Grazing Act was more favorable to beef ranchers than sheep raisers and cattle ranching became dominant in the region. Ranching continues to be an important economic activity in the region, with public land grazing permits often passed down through families (National Parks Service 2006).

Western Expansion

Treaty of Guadalupe Hidalgo 1848. This treaty was signed in 1848 after the Mexican-American War. The treaty required that Mexico cede 55% of its territory (present-day Arizona, California, New Mexico, and parts of Colorado, Nevada and Utah) in exchange for fifteen million dollars as compensation for war-related damage to Mexican property (Library of Congress 2005).

Boom Towns. When gold miners came to an area in the hope of striking it rich in the mid and late 1880s, many small towns and mining communities sprang up near the mines to service and support the miners. Rapidly built towns consisting of retail stores, hotels, and saloons were established and some were later abandoned as the mines of the Great Basin were either depleted or gold ran scarce. Remnants of some of these ghost towns of the west still exist as either tourist attractions or state parks (Neusius and Gross 2007).

Railroads. In 1862, President Lincoln signed the Pacific Railroad Act, which allowed construction of a railroad line from Sacramento east, built by Central Pacific Railroad and from Omaha West along the Missouri River, built by Union Pacific Railroad. The rail lines met in Promontory, Utah in 1869, completing the first Pacific Railroad (California State Railroad Museum Foundation 2007; Library of Congress 2006). The majority of the Union Pacific track was built by Irish laborers, civil war veterans, and Mormons who wished to see the railroad pass through Ogden and Salt Lake City, Utah. The Central Pacific track was mostly built using Chinese immigrant laborers. The completion of the railroad meant that agricultural produce, lumber, and gold could be shipped to eastern parts of the US, while settlers were able to emigrate from the east to live in the west. The railroad had a large impact on California immigration, which continued through the 20th century.

Trails

Mormon Trail. One of the major forces of settlement in the West was Mormon emigration. Thousands of Mormons (1,600) left Illinois in February 1846, crossing into Iowa, in an attempt to escape religious persecution (Forest Service 2007). Their leader, Brigham Young, opted not to follow the Oregon Trail, but instead forged a new route just north of the Platte River because the

route was better suited to wagon travel and because he wished to avoid other travelers from Missouri who frequented the Oregon Trail (Billington 1963). The Mormons crossed Mississippi and established temporary headquarters there, then went on to Missouri, through the Great Plains, where they spent an icy winter and lost 600 people from their party (Billington 1963). They reached the Valley of the Great Salt Lake, where they settled, in June 1847.

Old Spanish Trail. This trail was first established by a Mexican trader, Antonio Armijo, in 1829. He traveled from New Mexico to Los Angeles on a commercial caravan, carrying Mexican woolen goods and planning to bring horses back from California (National Park Service 2007). Prior to the Old Spanish Trail, an established overland southern route to California from New Mexico did not exist although portions of the trail had been used by Native Americans and early traders. The trail runs through present-day Colorado, Utah, Arizona, Nevada, and California (Cultures and Histories of the American Southwest 2007).

California Trail. The trail was used by over 250,000 farmers and gold miners from Missouri during the 1840 and 1850s. The route starts along the Missouri River, and then converges on the Great Platte River Road, overlaps with the Oregon Trail and to the Rocky Mountains. After the crossing the Rockies, many routes were used to get to and cross the Sierra Nevada Mountains. The total system of trails and alternate routes that make-up the California Trail is approximately 5,664 miles (National Park Service 2007).

Nez Perce. This trail extends from Wallowa Lake in Oregon to Bear Paw Mountain in Montana. It is named for the Nez Perce tribe of Native Americans who fled their lands when the US Army pursued them in 1877. Approximately 750 Nez Perce men, women, and children traveled over 1,170 miles through the mountains, on a trip that lasted from June to October of 1877 (US Forest Service 2007). The trails extends from Wallowa Lake, Oregon, through the Snake River at Dug Bar, entering Idaho at Lewiston and then over to north central Idaho, entering Idaho at Bannock Pass and traveling back to east Montana at Targhee Pass to cross the Continental Divide. It bisects Yellowstone National Park in Wyoming, and then follows the Clark Fork River out of Wyoming into Montana. The trail then heads north into Bear's Paw Mountains and ends forty miles from the Canadian Border (US Forest Service 2007). This trail crosses 90 miles of BLM land and 221 miles of USFS land within the project area.

GREAT PLAINS

The area between the Saskatchewan River in the north, the Rio Grande in the south, the foothills of the Rocky Mountains in the west, and the upper Mississippi River valley in the east makes up the Great Plains culture region (Figure 3-18). In general, the area covers parts of southern Alberta, Saskatchewan, and Manitoba in Canada and in the US, parts of Montana,

Wyoming, Colorado, Texas, Oklahoma, Missouri, Iowa, and Minnesota, far eastern New Mexico, and all of North Dakota, South Dakota, Nebraska, and Kansas. The majority of this culture region is east of the planning area (DeMallie 2001; Neusius and Gross 2007); planning area states within the Great Plains culture region include eastern areas of Montana, Wyoming, and Colorado (the easternmost planning area in New Mexico is included in the Southwest culture area). These areas are considered to be a part of the Northwestern and Western Periphery/western Central subunits of the Great Plains region (Gunnerson 2001; Frison 2001; Neusius and Gross 2007). The cultures of the Great Plains region are quite varied, primarily due to the diverse environs it covers. Different environments require unique adaptations by the occupants. However, all cultures of the Great Plains regions have at least one trait in common and that is bison hunting

USFS regions included in the Great Plains region include portions of Regions 1 and 2. BLM Field Offices included in the region include all or portions of Miles City, Billings, Malta, Glasgow, Lewistown, Havre, Butte, Casper, Buffalo, Newcastle, Rawlins, and Royal George offices.

Table I-4 identifies the Great Plains culture region languages and tribes that have been documented within the project area. Culturally, the Great Plains culture region is bordered by the Plateau, Great Basin, and Southwest regions on the west and the Northeast and Southeast on the east.

Table I-4
Languages and Tribes of the Great Plains Culture Region in the Project Area

| Language (Linguistic Phylum) | Tribes |
|------------------------------|--------------------------------|
| Siouan (Macro-Siouan) | Assinibone, Crow |
| Algonquin (Macro-Algonquian) | Cheyenne, Gros Ventre, Arapaho |
| Uto-Aztecan (Aztec-Tanoan) | Comanche |

Source: DeMallie 2001; Goddard 2001; Waldman 2000

A general chronology of the Great Plains has been developed based on developments in lithic technology with some regional variations and intermediate lithic forms between traditions (Neusius and Gross 2007). The earliest evidence of occupation of the Great Plains may represent the pre-Clovis period, however evidence is scant. The most definitive evidence for early occupation occurs during the Paleoindian Period, comprised of the Clovis and Folsom Periods. The following outlines a general chronology of the Northwest and Western Periphery/western Central subregions of the Great Plains (Neusius and Gross 2007).

- Pre-Clovis: pre-11,500 BP

- Paleoindian: 11,500 – 8500 BP
- Archaic: 8500 – 1500 BP
- Early Archaic: 8500 – 5000 BP
- Middle Archaic: 5000 – 3500 BP
- Late Archaic: 3500 – 1500 BP
- Late Prehistoric: 1500 – 500 BP
- The Protohistoric and Historic periods then follow the Late Prehistoric.

CULTURAL HISTORY

Prehistoric

Pre-Clovis: As stated above, there is very scant evidence for human occupation of the Plains prior to 11,500 BP. Primarily, this evidence is in the form of bone breakage patterns and a few tools. Even these are sometimes questionable in their linkage to humans. Although there are a number of mammoth bone sites it is difficult to attribute these to human activities. The patterns of breaks in the bones and their distributions suggest an association with humans, but the sites either have few or no stone tools. As such, a pre-Clovis occupation of the Great Plains is not well established at this time (Neusius and Gross 2007).

Paleoindian: There is considerable more evidence of Clovis and later Paleoindian occupations of the Great Plains region. In fact, it is in the Great Plains that archaeologists first encountered evidence of a Paleoindian occupation of the US. There are two definitive subperiods of this time based upon distinct forms of projectile points that are assumed to represent temporally and possibly spatially distinct populations. These are Clovis (11,500 – 10,900 BP) and Folsom (10,900 – 10,200 BP). The style of Clovis points is found in strata below those of Folsom points throughout the region. There are several point styles found in specific sub-areas that are viewed to be area-specific transitional styles that occurred between the periods of Clovis and Folsom points. The style of Plano points, comprised of unfluted lanceolate, stemmed, and unstemmed projectile points, represent lithic technologies of the Late Paleoindian period. Again, there is regional variation of lanceolate point styles. Between 9000 and 8500 BP a larger variety of lanceolate points is found, denoting a transition to the Archaic period and perhaps could be called a Terminal Late Paleoindian Period (Neusius and Gross 2007).

Combined with other tools in the Paleoindian toolkit, these projectile points suggest an emphasis on hunting and the use of high-quality raw materials suggest the importance of quality and reliability in the tools (Neusius and Gross 2007). In the foothill-mountain groups of the northwestern subregion, materials were typically extracted from local sources. Additionally, projectile points were not

as important as in other subregions, possibly reflecting the use of different procurement strategies adapted specifically to this area (Frison 2001). Caches of blades and bifaces found in the region, such as the Anzick Cache in Montana, do indicate an overall importance placed on lithics. Some of these are even associated with burials (Neusius and Gross 2007).

However, the majority of Great Plains Paleoindian sites are large game kill sites. Clovis points are most often associated with mammoth kill sites, although other large game is also found. Bison hunting appears to have begun with Folsom points, probably due to the environmental conditions of the time creating stable grasslands for the bison to roam in. Bison hunting strategies were carried out by individuals as well as small and large groups. Ambushes conducted at springs and playa lakes appear to have been the most common during the Folsom period based on archaeological evidence. Later bison drive, trap, and jump sites, such as the Jones-Miller site in east Colorado, became more common (Neusius and Gross 2007). It should be noted however that bison was not the only meat package used by the Great Plains Paleoindians as some sites contain a diverse faunal assemblage (Frison 2001).

Overall, archaeological evidence indicates that the Great Plains Paleoindians existed in small, mobile bands that ranged between the mountains and high plains. There is debate however as to whether these were specialized or general hunter-gatherers. Additionally, the archaeological record is biased toward large kill sites, such as those described above (Neusius and Gross 2007). Very few non-kill sites are represented in the record resulting in a gap in our knowledge of the region during this period. Similarly, the adaptations of the foothill-mountain groups of the northwest subregion are not as well known as other Great Plains groups. Further study of sites in the northwest would provide a better understanding of the niche adaptations that occurred here (Frison 2001).

Archaic Period: Subsistence and settlement patterns are basically the same during the Archaic Period of the Great Plains as they were during the Paleoindian Period. The period is denoted by a change in lithic technology, namely a replacement of lanceolate points by notched points across the Great Plains (Neusius and Gross 2007). The most notable change indicating the Archaic is the development of horticulture, also called “Woodland,” around 2500 BP. This occurred primarily in the eastern portions of the Great Plains region while the west and northwest remained mostly reliant on large game hunting. In the Northwestern as well as in the western Central Great Plains, however, there is a continuation of mobile hunting and gathering cultures (Frison 2001), hence the term “Hunting and Gathering Tradition” alternatively used to refer to this period. Groups established a seasonal settlement pattern that adjusted to conditions. They also established a flexible social organization to allow for aggregation of bands during hunts (Neusius and Gross 2007).

The Early Archaic is represented by more cave and rockshelter sites than open sites, presumably due to unusual environmental conditions during this time (Frison 2001). Grinding implements such as manos and metates were developed during this period of Great Plains occupation as well as earthen fire pits. These developments reflect an increased emphasis on vegetal foods (Frison 2001; Neusius and Gross 2007). This is also when horticulture developed in the river valleys and the Eastern Great Plains, although not in the Northwest and western Central Great Plains. In this area, faunal remains are scarce; however there are still a few bison kill sites in limited areas as well as evidence of communal hunting (Frison 2001). Throughout the Archaic, such sites are typically associated with arroyos, sand dunes, steep bluffs, or artificial corrals (Neusius and Gross 2007), remains of which may still be present. The large side-notched projectile point is the typical diagnostic marker for the Early Archaic in Northwest Great Plains (Frison 2001; Neusius and Gross 2007). However, in the western Central Great Plains, corner-notched points are prevalent (Frison 2001). The evolution from Paleoindian lanceolate points to notched points may indicate the new use of the *atlatl* by hunters (Neusius and Gross 2007) or it could represent the local development, transmission of outside ideas and technology, or population movements (Frison 2001). In either case, caching of lithic tools such as these does appear to continue on from the Paleoindian period (Frison 2001).

Although there is definitive evidence of housepits at Early Archaic sites, often associated with storage pits (Neusius and Gross 2007), there are not a significant number of sizable occupations in Northwest and western Central Great Plains, with the exception of caves and rockshelters (Frison 2001). However, there is no doubt that Early Archaic peoples existed here given the common surface finds of diagnostic artifacts. The apparent lack of large cultural occupations should not be attributed to a lack of human population, but may be related to site preservation and population mobility (Frison 2001). Similarly, the higher incidence of sites in caves and rockshelters may simply be due to their excellent preservation conditions.

The Middle Archaic saw many of the Early Archaic characteristics carry on, including grinding tools, fire pits, and numerous occupations of caves and rockshelters, especially along the Bighorn and Absaroka Mountains of Wyoming and Montana, respectively. Many of these sites have little to no stratigraphic separation between deposits of the two subperiods, indicating continuous occupations. Alterations in projectile point styles are the most notable Middle Archaic diagnostics. McKean and Mallory type projectile points are the diagnostic styles that occur throughout the Northwest Great Plains; McKean points also occurring in the western Central Great Plains.

Bison remains become more frequent and bison jumps are still present, but vegetal foods also continued to be consistently represented in people's diets. Overall, the subsistence base during the period of McKean points would indicate

a strategy adapted to ecotones that provided the most variety of resources (Frison 2001).

Changes in point form, particularly the appearance of the Pelican Lake corner-notched projectile point, indicate Late Archaic sites in the Northwest Great Plains (Frison 2001). It is thought that some Late Archaic points are small enough to have functioned as arrow points (Neusius and Gross 2007), the bow and arrow becoming prevalent in the subsequent Late Prehistoric Period. Little in subsistence strategies changes between the Middle and Late Archaic periods. Caves and rockshelters of the Big Horn Mountains and northern Wyoming still yield Archaic archaeological sites of this time period, including perishable materials such as basketry (Frison 2001).

Late Archaic peoples expanded further into the intermontane basin interiors as well as the foothills and mountains of the western Great Plains during the Late Archaic. This is indicated by fire pits, which at some sites can cover hectares and at others just a single pit will be found. The pits, often characterized by perimeters of red oxidized clay due to heat exposure or stone linings, are associated with other features and artifacts such as boiling pits, grinding stones, and flake tools. Although some of these were most certainly used for cooking, some were also probably used for a source of heat within structures. Prehistoric lakeshores created by retreating glaciers were often used for Archaic occupations. Many of these have been affected by modern efforts for water storage. These Archaic lifeways in the Northwestern and western Central Great Plains regions, concentrating on vegetal resources, continued into the Late Prehistoric period, while in other more “plainslike” environments economies were oriented more toward bison hunting (Frison 2001).

Stone rings, one of the most characteristic artifacts of the Late Prehistoric period on the Northwest Great Plains, first began to occur in large quantities during the Late Archaic. Raised topographic features in the interior basins and plains as well as in the foothills are the most sensitive for these kinds of sites, including butte tops, barren ridges, minor topographic rises, and stream terraces, particularly cobble-filled terraces. The rings occur singly or in clusters and vary in diameter. Association with cultural refuse is rare, making dating difficult in some cases (Frison 2001). Functions attributed to these rings range from structure bases, such as tepee rings, to ceremonial, such as medicine wheels (Frison 2001; Neusius and Gross 2007). Other features attributed to the Late Archaic, but are also difficult to date include petroglyphs, pictographs, and stone cairns and lines (Frison 2001).

Late Prehistoric Period: Dependence upon bison hunting, pottery making, and use of the bow and arrow combine to characterize the Late Prehistoric Period. In general, however the adaptive strategies of previous times continued into the Late Prehistoric. This period occurred concurrently with the Great Plains Woodland and Great Plains Village Periods of the majority of the Great Plains

cultural region to the east of the project area. Some of the historically documented Great Plains tribes can be documented by the archaeology of the region during this time (Neusius and Gross 2007).

Historic

Initial European contact with Great Plains tribes occurred first in the Southern and Central Great Plains. The Great Plains regions of the project area continued to support mobile bison hunters while further east several migrations and relocations occurred creating a tangled history of movement in those areas. Such movements represent the fluidity of the Great Plains Native American cultural geography during the Historic Period (Neusius and Gross 2007).

Three other factors contribute to the historic character of Native Americans in the Great Plains: introduction of the horse, trade in European goods, and disease. The horse allowed extended trade through the increased mobility that it brought, impacting economies and intergroup relations. Social structures were also impacted as individuals sought to gain more of these luxury items. The increased mobility brought by the horse also impacted political tribal relations as groups traveled farther into neighboring territories, often resulting in increased violence and raiding. Trade in European goods, guns in particular, also contributed to the increased violence. Europeans also brought Native Americans into their trades, including the fur trade. European diseases, however, decreased Native American populations, forced migrations and created changes in settlement patterns, as well as political breakdowns and unions (Neusius and Gross 2007).

Euro-American Contact

The first European explorers to explore the Great Plains came from Spain and France by way of three routes: the Spanish came to the Southern Plains and were explored by Alvar Nunez Vaz de Vaca from 1528 to 1536 across Texas. The Central Plains was explored by Francisco Vasquez de Coronado, who came to the Great Plains region (present day Texas and Kansas) in approximately 1540-1542. Coronado explored present-day Arkansas, New Mexico, Colorado, Kansas, and Nebraska. The Northern Plains was explored by Pierre Esprit Radisson and Medard Chouart, from France in 1659. Alvar Nunez de Vaca crossed Texas and parts of northern Mexico from 1528 to 1536 (Swagerty 2001). The French also explored area between 1742-1743, passing through North Dakota, Wyoming and Montana.

Euro-Americans began taking more of an interest in the Great Plains area after the Louisiana Purchase in 1803. The Lewis and Clark Expedition of 1804-1806 included present-day Missouri, South Dakota, North Dakota, Montana and other areas in the west. Fur and hide trading was one of the results of exploration of the area, and was the reason thousands of Europeans came to the Great Plains (Scott 1952). The Great Plains region continued to support mobile Native bison hunters while further east several migrations and

relocations occurred creating a tangled history of movement in those areas (Neusius and Gross 2007).

Trade

Fur Trade. The fur trade was an attractive economic pull for settlers to the Great Plains area. Trappers and traders from France, Spain, Russia, Britain and US came to the region to trade furs and hides. Native American tribes acted as middlemen and indirectly traded with other tribes and societies (Neusius and Gross 2007). After Lewis and Clark's exploration of the area, Americans also established trading posts within the Great Plains. Much of the trade industry began in the northern portion of the Great Plains with Hudson's Bay Company and the American Fur Trading Company. The French established trading posts there as well (Swagerty 2001). The Hudson's Bay Company controlled most of the trade in areas that drained into the Hudson Bay, including North Dakota and Minnesota as well as the Canadian portion of the Northern Plains. The French traded on the tributaries of the Mississippi, or west from the Great Lakes, where they established posts along the rivers (Neusius and Gross 2007). This prosperous trade lasted from 1806 to 1850, and included trappers from France, Spain Brittan, Russia and the United States. Construction of trading posts lasted from 1822 until 1850, when supply and demand for beaver fur ended.

Ranching. Ranching on the Great Plains developed initially using the open range lands where cattle were free to roam without fences or barriers. In most areas land was not surveyed, settled or fenced. The lack of forests and trees also made it difficult to build fences to control livestock. The commercial development of barbed wire in 1870 was instrumental in providing fencing material for cattle, which enabled ranchers to separate their cattle and control grazing (International Information Programs 2007 and Webb 1931). The use of open ranges continued in some places into the 20th century.

After the Civil War, railroads were used to transport cattle to eastern and northern markets. Cattle were driven hundreds of miles along established routes overland to railroad towns like Abilene, Kansas. The industry grew steadily as Native populations were displaced, more land became available for settlement, and more rail transportation was developed. The last brief boom in the ranching economy occurred in the early 1880s when there was a large influx of ranchers that settled in the region (Webb 1931). Soon after drought, harsh winters, overgrazing, and competition resulted in disastrous setbacks for the ranching industry, which began to collapse in the mid-1880s (Webb 1931). Ranching continues to be an important economic mainstay in many parts of the Great Plains region.

Mining. Gold, silver, and copper mining were important resources within the Rocky Mountain States of the Great Plains in the nineteenth century. Energy

resources such as petroleum, natural gas and coal are currently important resources in the Plains (USDS 2008).

Western Expansion

Hide hunters and trappers were first attracted to the region because of the large numbers of bison in the area. A prosperous fur trade took place in the early decades of the nineteenth century, which led to the eventual depletion of the bison population. Early American emigrants came to the Great Plains region in larger numbers beginning in 1840, many passing through on their way further west. Gold discovered in Colorado, Montana and California greatly increasing overland travel. In 1850 alone, 100,000 emigrants crossed the Great Plains, many bound for the gold fields of California (Swagerty 2001). Permanent settlement in the Great Plains was avoided because of the lack of trees, water sources, and difficulty in producing crops (USDS 2008). Many crops failed in the Great Plains largely due to rainfall fluctuation in the region, and the marginal quality of farming lands. Early settlers often bypassed the Great Plains region in order to settle in areas more hospitable to farming (USDS 2008). Those that did settle in the region had more success with ranching, an alternative to farming.

In 1854, Congress passed the Kansas-Nebraska Act, which created the Kansas and Nebraska Territories. The acquisition of lands originally held by Native Americans expanded the boundaries of the United States west of the Mississippi. The Homestead Act of 1862 attracted settlers, many of whom were recent immigrants from Europe. The Homestead Act transferred more than 270 million acres of land from Federal to private ownership. Large numbers of homesteaders settled in the Great Plains, especially the western portion. Many of these new settlers tried to establish farms and homesteads that failed due to the poor suitability of the land for agriculture. Extensive irrigation in the area eventually led to productive crop growing, and livestock raising was consistently part of the area's economy (National Park Service 2006).

Trails

Oregon Trail. The Oregon Trail was used by settlers traveling to the Great Plains region or to pass through the area on their way to more westerly points. The Trail began as an unconnected series of trails used by the Native Americans. Fur traders expanded the route to bring pelts to trading posts in the early 1800s (Bureau of Land Management 2007). The route extends roughly 2,000 miles west from Missouri toward the Rocky Mountains to the Willamette Valley. A trail to California digressed from the route in Idaho (Bureau of Land Management 2007).

Several groups followed the route to settle the west between 1800 and 1880s. Missionaries used the trail during the 1830s, traveling along the Platte and Snake Rivers to settle churches in the Northwest. Mormons, headed toward Salt Lake in Utah, used the trail beginning in 1847, and the discovery of gold in California caused many gold miners to use the trail in 1849. Military posts and spur

roads were established along the Oregon Trail. Fort Laramie in Wyoming was established in 1849 as the base for protecting a long stretch of the Oregon Trail (National Park Service no date). The trail was used for driving cattle driving trail eastward for a brief time as well. The construction of the Central Pacific Railroad, connecting California to the rest of the continent in 1869, decreased use of the Oregon Trail. By the early 20th century, the trail was no longer a major transportation corridor, as railroad lines paralleled the original route in many places (Bureau of Land Management 2007, Schwantes 1989).

Mormon Pioneer Trail. One of the major forces of settlement in the West was Mormon emigration. A large colony of Mormons left Illinois in February 1846 and crossing into Iowa, in an attempt to escape religious persecution (Forest Service 2007). Their leader, Brigham Young, opted not to follow the Oregon Trail, but instead forged a new route just north of the Platte River because the route was better suited to wagon travel and because he wished to avoid other travelers from Missouri who frequented the Oregon Trail (Billington 1963). The Mormons crossed Mississippi and established temporary headquarters there, then went on to Missouri, through the Great Plains, where they spent an icy winter and lost 600 people from their party (Billington 1960). They reached the Valley of the Great Salt Lake, where they settled, in June 1847. The trail is approximately 1,300 miles long (American West 2007).

Nez Perce. This trail extends from Wallowa Lake in Oregon to Bear Paw Mountain in Montana. It is named for the Nez Perce tribe of Native Americans who fled their lands when the US Army pursued them in 1877. Approximately 750 Nez Perce men, women, and children traveled over 1,170 miles through the mountains, on a trip that lasted from June to October of 1877 (US Forest Service 2007). The trails extends from Wallowa Lake, Oregon, through the Snake River at Dug Bar, entering Idaho at Lewiston and then over to north central Idaho, entering Idaho at Bannock Pass and traveling back to east Montana at Targhee Pass to cross the Continental Divide. It bisects Yellowstone National Park in Wyoming, and then follows the Clark Fork River out of Wyoming into Montana. The trail then heads north into Bear's Paw Mountains and ends forty miles from the Canadian Border (US Forest Service 2007). This trail crosses 90 miles of BLM land and 221 miles of USFS land within the project area.

Railroads

The construction of the Union Pacific and Central Pacific Railroad, linking Missouri to California was completed in 1869. These completed railroad lines increased settlement in the Great Plains area from emigrants from the eastern US. The rail lines not only transported people, but was also used to transport hides and cattle to markets in the east (National Park Service 2007). Many of these lines were constructed in an east-west direction instead of a north-south direction because early travelers were merely passing through the region, not settling there (Webb 1931). An important exception was the Kansas Pacific

Railroad from Abilene to Chicago which established in 1867 a gateway for cattle from the southern plains to reach eastern consumer markets through the stockyards of Chicago.

The construction of the railroads often required temporarily quarters for the construction crews to inhabit while they built stretches of railroad. These towns would consist of large tents that held dance floors, gambling areas, dance floors and bars. Many of the rural “boom towns” eventually became ghost-towns due to a loss of population and because much of the agricultural land was unsustainable (Billington 1963). However, many towns and cities within the Great Plains region have their origins in the small boom towns associated with railroads line. Some of these cities continue to be important to the economy of the Great Plains (USDS 2008).

CALIFORNIA

The California culture region resembles the modern state, however it excludes parts of the northwest and northeast corners of the state (Northwest Coast and Plateau culture regions, respectively), as well as the Mojave Desert and areas east of the Sierra Nevada (Great Basin culture region) (Figure 3-16). The region does extend south into Mexico and Baja California, but since these areas are not included in the project area, it is not discussed here. Although the region is not consistently split into subregions, the terms Southern California, Central Coast, and Northern California are used here (the Central Valley is not discussed because it is mostly excluded from the potential development area). Southern California is considered to include the area south of Santa Barbara; the Central Coast is covers primarily Santa Barbara, San Luis Obispo, and Monterey Counties; and Northern California is considered to be the area from the San Francisco region north.

USFS regions included in the California region include all of Region 5 and a small southern portion of Region 6 in Oregon. BLM Field Offices included in the region include all or portions of the El Centro, Palm Springs/South Coast, Barstow, Needles, Ridgecrest, Bakersfield, Hollister, Folsom, Ukiah, Eagle Lake, Redding, Arcata, Alturas, Surprise and Lakeview offices.

Table I-5 identifies the California culture region languages and tribes that have been documented within the project area. Culturally, the California culture region is bordered by the Southwest and Great Basin culture regions to the east and the Plateau and Northwest Coast culture regions to the north.

A general chronology of California has been developed based on developments in social organization and bead forms (Neusius and Gross 2007). The early prehistory of California has been dramatically affected by post-glacial sea level

Table I-5
Languages and Tribes of the California Culture Region in the
Project Area

| Language (Linguistic Phylum) | Tribes |
|---|---|
| Athapascan (Na-Dene) | Tolowa, Hupa, Chilula, Whilkut, Mattole, Nongatl, Sinyone, Lassik, Wailaki, Cahto |
| Algonquian (Macro-Algonquian) | Yurok, Wiyot |
| Uto-Aztecan (Aztec-Tanoan) | Tubatulabal, Tataviam, Gabrielino, Luiseño, Kitanemuk, Serrano, Cahuilla, Cupeño |
| Karok (Hokan) | Karok |
| Chimariko (Hokan) | Chimariko |
| Shastan (Hokan) | Shasta |
| Palaihnihan (Hokan) | Achumawi, Atsugewi |
| Pomo (Hokan) | Western Pomo, Northeastern Pomo, Eastern Pomo, Southeastern Pomo |
| Yanan (Hokan) | Yana |
| Esselen (Hokan) | Esselen |
| Salinan (Hokan) | Salinan |
| Chumashan (Hokan) | Eastern Coastal Chumash, Obispeño Chumash, Purisimeño Chumash, Interior Chumash |
| Yuman (Hokan) | Tipai and Ipai |
| Miwok-Costanoan (Penutian) | Lake Miwok, Eastern Miwok, Coast Miwok, Costanoan |
| Wintun (Penutian) | Wintu, Nomlaki, Patwin |
| Maidu (Penutian) | Maidu, Nisenan, Konkow |
| Yokutsan (Penutian) | Monache, Southern Valley Yokuts, Northern Valley Yokuts, Foothill Yokuts |
| Yukian (Undetermined linguistic phylum) | Yuki, Coast Yuki, Huchnom, Wappo |

Source: Heizer 1978a; Shipley 1978; Neusius & Gross 2007; Waldman 2000

rise, resulting in inundation of the coastline and altering coastal environments. Although a few sites have been attributed to Pre-Clovis occupations, many archaeologists do not agree these are true representations of a very early occupation of California. Rather, the earliest agreed upon evidence is for a Clovis-like occupation. The following outlines the general chronology of California (Neusius and Gross 2007). It should be noted that this chronology is not based on the summary regional chronology given in the standard *Handbook of North American Indians* (Heizer 1978b), but is instead based on more recent archaeological data.

- Paleoindian: pre-11,000 BP

- Archaic: 11,000 – 4000 BP
- Early Archaic: 11,000 – 8000 BP
- Middle Archaic: 8000 – 6000 BP
- Late Archaic: 6000 – 4000 BP
- Pacific: 4000 – 500 BP
- Early Pacific: 4000 – 2500 BP
- Middle Pacific: 2500 – 1500 BP
- Late Pacific: 1500 – 500 BP
- The Historic period then follows the Late Pacific Period.

CULTURAL HISTORY

Prehistoric

Paleoindian: The most accepted evidence of first cultures in California is comprised of Clovis-like fluted points found primarily as surface scatters. As in other regions however, such finds are rare (Neusius and Gross 2007). Their scarcity may be due to the rise of sea level at the end of the Pleistocene. Consequently any sites formed during the Paleoindian period along the now submerged coastline, would also be submerged.

Evidence from one archaeological site, Borax Lake, in the North Coast Range of northern California supports a notion that early inhabitants of the northern region were generalized foragers, opposed to the big-game hunters of other regions. Other sites in the southern California region include lithic hunting and cutting tools, and lack millingsstones, indicating an emphasis on large game hunting. A series of Paleoindian sites are located along the California coast and are associated with coastal rivers, lagoons, and estuaries. These sites indicate a possible early maritime adaption that is separate from the Clovis-like occupations. Fluted points are not found at these sites. Also indicated is a use of watercraft suitable for ocean crossings, given the location of some sites on the Channel Islands of the Santa Barbara region (Neusius and Gross 2007).

Archaic: The Archaic period witnessed warmer and drier conditions that required adaptations by prehistoric populations in the California culture region. However, Early Archaic sites were most certainly affected by rising sea levels, becoming inundated by rising sea levels or eroded from cliffs by wave action. The period saw a slow, but necessary evolution of subsistence activities, beginning with hunting, followed by an emphasis on seed collection, followed by a variety of specializations adapted to the range of environments in the region (Wallace 1978).

Archaic adaptations included the incorporation of seeds into the diet, requiring development of millingstones. Along the coast in southern California, many Archaic sites incorporate numerous amounts of shell with simple flake and cobble tools as well as manos and metates. However, many inland southern California sites include many more flaked stone tools and often not made from cobbles, like those along the coast, and they lack shell. Along the Central Coast in the Santa Barbara region some pithouses have been attributed to the Archaic and mortars and pestles appear rather than metates. In the San Francisco Bay region the earliest times of the Archaic period are poorly represented, probably due to sea level rise creating for the Bay for the first time (Neusius and Gross 2007). As such, the area may not have been resource-rich prior to sea level rise. In the same thought, any sites that would have been in the Bay would now be underwater. Archaic sites that are present in the San Francisco Bay region exhibit the same millingstone tool kit as other areas, as well as mortars and pestles and simple shell beads. Along the coast north of San Francisco Bay the Borax Lake tradition is prominent. This tradition is based on the presence of a distinctive projectile point with a square stem, millingstones, mortars, pestles, simple lithic tools, knives and bifaces (Neusius and Gross 2007). Additionally, charmstones, presumably of ceremonial significance, are found throughout the culture region during this period.

Patterns of settlement during the Archaic period are best known from the archaeological record of Southern California. During the earliest period of the Archaic prior to sea level rise, sites were situated along the coast on higher ground, such as bluffs and marine terraces. As sea levels rose, the sites became concentrated on such topographic features near the forming lagoons and estuaries. However, it is unknown if these are true cultural patterns or if it is a biased pattern formed as a result of site inundation along the coast (Neusius and Gross 2007). As sea levels continued to rise during the Archaic, sediments carried down streams and rivers to the ocean began to fill the lagoons and estuaries that had formed at their mouths. The result for some was the formation of mudflats while others were entirely cut off from the ocean, depleting their original productivity. Late Archaic populations adapted to these changes by moving to the open coast and permanent bays and wetlands. In Southern California, sites along the coast acted as seasonal base camps while inland sites were occupied only for parts of the year. Such a pattern indicates small, highly mobile groups. Alternatively, along the Central Coast there are large base camp sites along the coast accompanied by a variety of smaller, seasonal camps more inland. This pattern indicates a semi-sedentary lifestyle (Neusius and Gross 2007).

The earliest Archaic peoples made great use of the varied environments of California in their diets. Along the coast shellfish were favored and supplemented by seeds and land mammals, but surprisingly fish is not as common in archaeological sites as would be expected. Millingstones appeared in earnest along the coast around 8000 – 9000 BP, indicating intense use of

seeds. Meanwhile in more inland areas large game and seeds were the staples of diets there. In the Middle Archaic, hunting became increasingly more important throughout the culture region. There is also an increase in incidence of mortars and pestles during the early part of Late Archaic, indicating increased use of acorns (Neusius and Gross 2007).

Pacific: The Pacific Period is similar to other post-Archaic patterns in North America. Stable food supplies were adopted and economies developed that were based on those supplies. Populations grew and developed social hierarchies as a reaction to the imbalance of the population and available resources. An increased importance on trade in specialized and luxury items helped to maintain the developing hierarchy. In coastal and southern California cultural time periods during the Pacific are based primarily on changes in shell bead and ornament typologies (Neusius and Gross 2007).

A variety of sites characterize the Pacific Period, namely permanent villages, seasonal camps, specialized resource procurement sites (such as quarries) that replaced the more generalized camp sites of the Archaic, rock art sites, and trading sites. Populations were sedentary primarily in the Santa Barbara region, while in other parts of the project area they were semi-sedentary with permanent villages and seasonal base camps. For instance, along the northern coast semi-sedentary villages were established in the lowlands and camps in the uplands, the latter occupied by a portion of the village population. Often, bedrock milling features (such as bedrock mortars and grinding slicks) are associated with many of the sites of the Pacific Period (Neusius and Gross 2007), further indicating the importance of seeds and other vegetal foods.

Along the coast shellfish remained an important part of the prehistoric diet and the importance of fishing apparently increased. Along the Central Coast hunting of marine and land mammals supplemented this diet, while in the south acorns and seeds were more common supplements (Neusius and Gross 2007). The increase in fishing may have been supported by new technologies in watercraft, such as the *tomol*, or plank canoe. It should be noted that ocean going watercraft apparently were in use during the Early Archaic given the location of sites on the Channel Islands.

With the intensification of stable resources such as acorns, hard seeds, fish, and marine resources, the development of storage became a requirement. Acorn granaries are in fact a prominent feature of most California sites. In the desert areas of Southern California, acorns were often replaced with honey and screwbean mesquite. In the areas farthest south ceramic vessels were commonly used for storage rather than granaries (Neusius and Gross 2007).

Later in the Pacific Period artifacts begin to be elaborated with engraving and shell ornamentation along the coast. The numbers of groundstone artifacts such as millingstones, mortars, and pestles, increases there is extensive use of marine

resources. Additionally small arrowheads are found in sites. Along the south coast and in the southern foothills and mountains sites have a more diverse assemblage, including ceramics, triangular and side-notched arrowheads, mortars, metates, and manos. Evidence of cremation is also present at sites, whereas during the Archaic individuals were commonly buried. The practice of cremation along with similarities in artifact styles seem to indicate interaction between this southern portion of the California culture region and parts of the Southwest region. Likewise, along the northern coast of California, similarities are seen in the settlement patterns of the northern California coast and the adjoining Northwest Coast region, likely indicating interactions between the two areas (Neusius and Gross 2007).

The use of the plank canoe not only allowed people of the Pacific Period to venture farther out for fishing, but also allowed interdependent economic systems to develop between the mainland and islands. This, along with the increased population indicated by larger sites (Neusius and Gross 2007), only further developed the social hierarchies of settlements. Those with resource surpluses could afford to have canoes built and could therefore exercise control of trade along the California coast, continuing to attain and control luxury and specialized items, such as the *Olivella* shell beads used for money and made using lithic materials available only on Santa Cruz Island in the Santa Barbara Channel.

Historic

Contact with a variety of European ethnicities brought exotic goods such as glass beads, china, and iron to the California region, as well as the diseases that were brought in the same way to other cultural regions. The decrease in California populations as a result of European diseases most certainly affected the social organization and subsistence activities of the people (Neusius and Gross 2007).

As the Spanish established missions, pueblos, and presidios across the region, missionaries sought to convert the Native Americans to Christianity and settle them at the missions. Missions were established in areas with large Native American populations and where water and other resources were readily available (Neusius and Gross 2007). Some Native Americans did move to the missions, assisting with the construction of the missions and their systems (such as irrigation), others did not. Uprisings of Mission Indians are recorded as some realized that they did not want to stay at the missions. The Mission life was much different than what native groups were used to, however studies have shown that female activities continued relatively unchanged, while male activities resembled more Spanish-derived pursuits (Neusius and Gross 2007).

After Mexico gained independence from Spain, much of the land of California was transferred to private ownership in the form of ranchos and haciendas; however, the Spanish pueblos also grew. The presence of Native Americans at these locations varies across the state. At some, there is no evidence of their

presence, while at others there is evidence of their use as laborers (Neusius and Gross 2007).

Euro American Exploration

The first known Europeans to explore the area that became California were the Spanish, British, and Russians.

Spanish exploration of the California region began in the sixteenth century. Francisco Coronado and Hernando de Alarcon, along with Melchor Diaz led expeditions in 1540. Juan Rodriguez Cabrillo, from Spain, led an expedition to the region in 1542 (Castillo 1978). By the end of the century, the Spanish authorities in Mexico hoped to secure the California coast and find ports and expand its thriving Pacific trade. Manila galleons, heavy sailing ships with many decks for cargo, brought silks, jewels, spices, and fine china to western Mexico from the Philippines, returning with cargoes of gold and silver from the mines of New Spain. Cabrillo explored the coast along present day San Diego, Catalina Island, San Pedro, and the Channel Islands area (Castillo 1978).

Sir Francis Drake, a British explorer, landed on the California coast in 1579. He explored the present-day Bodega Bay or Drake's Bay area, and claimed it as Britain's territory (Castillo 1978). Two hundred years later, Captain James Cook explored and mapped the coast of California and Alaska all the way to the Bering Strait.

The Russians are not known to have entered California in the sixteenth century, but beginning in 1742 they began exploring the Aleutian Islands and the west coast of Alaska seeking furs. They established a permanent settlement on Kodiak Island in 1784. Soon thereafter, native Alaskan hunters working for the Russians traveled south to hunt sea otters along the coast of California.

The Spanish were eager to establish a settlement in California because of the fear that British and Russian would continue to expand control and begin to settle along the California coast (Castillo 1978). In 1769, the Spanish organized an expedition led by Captain Gaspar de Portola and Father Junipero Serra. The expedition also resulted in the establishment of the first of twenty-one missions along the California coast, in San Diego, named San Diego de Alcala (Castillo 1978; Library of Congress 2006). The missions functioned both as economic and religious outposts of the Spanish empire.

The expedition to California also resulted in the founding of the first presidios, and by 1800 there were three presidios established along the coast. Presidios were military forts the Spanish used to obtain control of an area and to defend coastal harbors against attack. During the next fifty years, the Spanish continued to explore the coast of California, establishing missions, presidios and pueblos (civilian towns) from San Diego to Sonoma (Neusius and Gross 2007).

Western Expansion

Mexico including California became independent from Spain in 1821. This led to the secularization of missions and the removal of Native Americans from missions (Castillo 1978). Independence meant a shift of power from church to private landowners. Governors of Mexico were able to secure land grants in the form of ranchos, large pieces of lands, to individuals. The ranchos often contained buildings made from adobe, including large residences. During the Mexican period, cattle-raising, and the marketing of beef and hides became an economic staple in California (Library of Congress 2006). Fur traders and trappers settled in California during this period, and many visitors came through California on their way to Oregon.

The Mexican American War was won by the US in January, 1847, ending the Mexican Period. The population of California at that time was 150,000 Native Americans and 14,000 Mexican and European descendants (Library of Congress 2006). This was soon followed by the discovery of gold in the Sierra Nevada Mountains. The discovery of gold meant new settlers to the region, many of whom did not respect the property rights of rancho owners and squatted on their lands.

Chinese were among the largest emigrants to California during the gold rush. They were not welcome by the Anglo-miners, and the Chinese often set up camps and small enclaves which were entirely populated by Chinese (California Historical Society 2000).

California was admitted to the union as a free state in late 1850. The population and economy of the state grew rapidly in the 19th and 20th centuries. Agriculture became an important part of the economy and other industries developed, such as the oil and entertainment industries (California Historical Society 2006).

Major Industries

Mining. The discovery of gold in 1848 in Coloma, California marked a huge transition. Thousands of miners and gold-seekers came from other parts of the United States and other countries and continents. Many who came traveled by routes through seas and came through the port of San Francisco (California Historical Society 2000). Mining became a thriving industry during the 1880s, and technical advances in mining equipment, such as hydraulic mining, became a thriving industry (Library of Congress 2006).

Settlers who came to California for the gold rush found business and farming lucrative and settled in the region. Ports, such as San Francisco (then Yerba Buena) experienced growth in exports and businesses catering to the mining community thrived during the 1880s into the early 1900s. Other mining towns, called “boomtowns” were established during this period, to service the miners who traveled distances to work in the mine fields. The biggest boomtowns in near the gold fields were Sacramento and Stockton.

Agriculture, Ranching

Commercial agriculture and ranching in California had its roots in the missions and pueblos. The Spanish introduced a wide variety of Old World and Asian cereal and fruit crops and domesticated livestock to California. They also brought in irrigation systems, metal tools and crop processing methods. The missions were not only expected to be self sustaining, but they also needed to support the Presidios and provide goods to be traded. Livestock was raised for meat, but also for wool, leather, and tallow, and for cultivating the land.

After secularization there was a decline in agricultural production. With the discovery of gold, the needs of the miners and the growing cities caused a rapid increase in both crops and ranching. . Wheat became a strong agricultural product in California by 1850 (Library of Congress 2006) and cattle ranching peaked in the 1860s. Direct access to the eastern markets through the railroad in 1869 and later through refrigerated train cars allowed expansion of agriculture through the 19th century. A later transformation was the change from dryland agriculture to intensive-irrigated agriculture at the turn of the last century. California has historically produced a variety of crops including vegetables, fruit, nuts, dairy, livestock, poultry, and flowers for export to other regions in the U.S. as well as to other countries. While much of the current agricultural activity is located inland, there is crop production along the coastal valleys of northern and southern California (Johnston 1994). Field crops continue to be the mainstay of the agricultural economy of California.

Railroads. Shortly after California became a state in 1850, rail lines were constructed. In 1862, President Lincoln signed the Pacific Railroad Act, which allowed construction of a railroad line from Sacramento east, built by Central Pacific Railroad and from Omaha West along the Missouri River, built by Union Pacific Railroad. The rail lines met in Promontory, Utah in 1869, completing the first Pacific Railroad (California State Railroad Museum Foundation 2001; Library of Congress 2006). The completion of the railroad meant that agricultural produce, lumber, and gold could be shipped to eastern parts of the US, while settlers were able to emigrate from the east to live in the west. . The railroad had a large impact on California immigration, which continued through the 20th century.

Trails

Juan Bautista de Anza. This trail was used by a party of 300 Spanish colonists, led by Colonel San Juan Bautista, from Mexico to California in 1775. The party intended to establish a mission and presidio in present-day San Francisco in order to secure the area from Russians and British. The party contained thirty families, a dozen soldiers, cattle, mules, and horses. It took three months to follow the trail through the southwest desert before reaching the California Coast. The trail is over 1,200 miles long. It took another three months to travel from the southern coast up to the northern coast to present-day San Francisco (USDA Forest Service 2007). This was the first overland

route established to connect New Spain with San Francisco (National Park Service 2007).

Old Spanish Trail. This trail was first established by a Mexican trader, Antonio Armijo, in 1829. He traveled from New Mexico to Los Angeles on a commercial caravan, carrying Mexican woolen goods and planning to bring horses back from California (National Park Service 2007). Prior to the Old Spanish Trail, an overland southern route to California from New Mexico did not exist. The route was used often by traders and also traded with Native Americans along the route. This combination of footpaths of Native Americans, early trade explorations, and horse and mule routes make up the Old Spanish Trail. The trail was 1,200 miles long and extends from two trailheads. The trail ran through present-day Colorado, Utah, Arizona, Nevada, and California (Cultures and Histories of the American Southwest 2007).

California Trail. The trail was used by over 250,000 farmers and gold miners from Missouri during the 1840 and 1850s. The route starts along the Missouri River, and then converges on the Great Platte River Road, overlaps with the Oregon Trail and to the Rocky Mountains. After the crossing the Rockies, many routes were used to get to and cross the Sierra Nevada Mountains. The total system of trails that make-up the California Trail is approximately 5,664 miles (National Park Service 2007).

Pony Express National Historic Trail. This trail began in 1860 as a mail route connecting the eastern US with California. It was privately financed and was used only for eighteen months before the telegraph system was constructed and replaced the Pony Express. Riders on horseback transported mail from Missouri to California in ten days, traveling over 1,800 miles. The transcontinental railroad later followed much of this route (National Park Service 2007).

SOUTHWEST

The Southwest culture region covers all of Arizona, the western majority of New Mexico, the southern tip of Nevada, southern Utah, extreme southern and western Texas, and parts of southwest Colorado (Figure 3-21). Important Ancestral Puebloan occupations in Southwestern Colorado are found outside of the tribal ranges depicted at the time of contact for the Southwest region. The region does include parts of northern Mexico, but since this part of the region is not included in the project area, it is not discussed here. This is a highly varied region culturally that is rich in cultural resources and it should be noted that many of the tribes and pueblos within the cultural region may have more in common with neighboring cultural regions because of their shared environmental contexts. As a whole though, the Southwest culture region is demanding of its inhabitants and requires extensive adaptations to its environments for survival. This is recognized in the development of agriculture, domestication, stone and masonry architecture, and irrigation systems as well as

the mysterious abandonments in some areas. A wide array of other traditions, some having been adopted from Mesoamerican cultures, also characterizes the cultures of the region. However, because of the diversity of the environments these adaptations vary among the subregions of the area (Neusius and Gross 2007; Ortiz 1979a; Woodbury 1979).

USFS regions included in the Southwest region include portions of Regions 2 and 4 and all of Region 3. BLM Field Offices in the region include all or portions of all field offices in New Mexico and Nevada with the exception if the Arizona Strip Office. In addition the cultural region covers a portion of the Royal Gorge Field office. In addition, the southwestern cultural region includes portions of field offices in southern Colorado.

Table I-6 identifies the Southwest culture region languages and tribes that have been documented within the project area. Culturally, the Southwest culture region is bordered by the California to the west, Great Basin to the west and north, Plains to the north and east, and Southeast to the east.

Table I-6
Languages and Tribes of the Southwest Culture Region in the Project Area

| Language (Linguistic Phylum) | Tribes |
|--|--|
| Yuman (Hokan) | Walapai, Havasupai, Yavapai, Mohave, Halchidhoma, Quechan, Cocopa, Maricopa |
| Uto-Aztecan (Aztec-Tanoan) | Papago and Upper Pima, Hopi, Jocomo and Jano, Tewa, North Tiwa, South Tiwa, Jemez, Pecos, Tano |
| Athapascan (Na-Dene) | Navajo, Western Apache, Chiricahua Apache, Mescalero Apache, Jicarilla Apache |
| Zunian (Penutian) | Zuni |
| Keresan (Undetermined linguistic phylum) | Rio Grande Keresans, Acoma, Laguna |
| Kiowa-Tanoan (Aztec-Tanoan) | Piro, Tompiro |

Source: Ortiz 1979b; Neusius & Gross 2007; Waldman 2000

No single framework of Southwest cultural chronology is entirely appropriate for the whole culture region given the high degree of variability across it. However, there is enough similarity in the development of the major characteristics of the culture region for researchers to have established a very general chronology while limiting the amount of subareas discussed for each period (Neusius and Gross 2007; Ortiz 1979a; Woodbury 1979). Throughout the region the evidence for a Pre-Clovis occupation is rare, but there is definite evidence of a Clovis and post-Clovis Paleoindian occupation. The following outlines the general chronology of the Southwest culture region. Unlike other

regions, the more recent cultural and technological patterns of the Southwest do not allow for an overall chronology after the Archaic Period and more localized patterns must be used (Neusius and Gross 2007).

- Paleoindian: pre-8000 BP
- Archaic: 8000 – 1750 BP
- Early Archaic: 8000 – 3500 BP
- Late Archaic: 3500 – 1750 BP
- Fully Developed Regional Traditions: 1750 – 400 BP

The Historic period then follows the localized regional traditions in the Southwest.

CULTURAL HISTORY

Prehistoric

Paleoindian: Southwest populations of the Paleoindian Period were organized into small, mobile groups of hunter-gatherers and resembled the Great Plains in many ways (Irwin-Williams 1979; Neusius and Gross 2007). Evidence for Pre-Clovis (pre-11,500 BP) people in the region is scant and what does exist is not very reliable. Evidence for Clovis hunters is much more accepted and found across the Southwest culture region, if not still in small numbers. In fact, Clovis points are named after the town in New Mexico, where examples were found in 1929. Such evidence comes from mammoth and bison kill and butchering sites where bones of the large game are associated with Clovis points as well as surface finds of Clovis points throughout the Southwest culture region (Neusius and Gross 2007). Paleoindian lifeways in general in the Southwest were intimately tied to the changing environmental and climatic context, technological innovations and adaptations, changing population sizes, and changing social organization (Irwin-Williams 1979; Neusius and Gross 2007).

Following the early Paleoindian Period, distinct patterns developed in the east and west portions of the Southwest, marked by the Arizona and New Mexico state line. In the east, a definite Folsom lithic technology with large game hunting is seen beginning around 11,000 BP. In the western Southwest, post-Clovis evidence is rare and what evidence has been found does not seem to indicate a reliance on big game hunting. This pattern continued throughout the rest of the Paleoindian Period, however late Paleoindian sites of the eastern Southwest, which tend to be situated in the foothill and mountain areas, appear to lack the diagnostic Folsom points (Neusius and Gross 2007).

Archaic: Unlike other culture regions, there is less distinction between the subperiods of the Archaic in the Southwest culture region (Neusius and Gross 2007). Additionally, Paleoindian similarities between the region and the Great

Plains disappear (Irwin-Williams 1979). As a whole however, sites of this age are typically ephemeral because they were used for comparatively short periods of time, although simple houses first occur in the region during the first half of this period. The Archaic Period brings the first indication of regional variation among groups in the Southwest culture region (Neusius and Gross 2007).

The Early Archaic corresponds with a climatic interval called the Altithermal when moisture levels varied locally and temperatures were unusually warm. Pleistocene large game disappeared presumably due to this environmental shift. These factors combined to require new adaptations by Southwest culture region populations. The largest difference is in technology. Groundstone occurs much more frequently in sites, including millstones which indicate an increased reliance on seeds in the diet. Projectile points become smaller and their form changed from Folsom-type fluted and stemmed points to side- and corner-notched points with new hafting techniques. A variety of other stone tools are also included in the Archaic toolkit. The foragers of this time likely followed blooming and ripe plants. In the southern portion of the Southwest, this likely drew people to the valleys of permanent rivers. Caves and rockshelters of these kinds of areas were frequently used (Neusius and Gross 2007).

Four Archaic regional variants developed during the Early and continued into the Late Archaic Periods, incorporating the above adaptations as necessary: San Dieguito-Pinto in the west, Oshara in the north, Cochise in the southwest, and Chihuahua in the southeast. Pinto sites are often found as surface sites in dry lake basins and along drainages. Oshara sites develop into seasonal fall or winter camps. The Cochise concept is under debate, but later sites attributed to it tend to include simple houses. Chihuahua sites are similar to Oshara and Pinto sites, but are not well understood incorporating their own distinct artifacts and patterns. Although each of these areas and traditions have their own expressions, the Late Archaic Southwest populations practiced a broad-spectrum subsistence method, based on hunting large game and supported by trapping small game and gathering and storing seeds (Irwin-Williams 1979; Neusius and Gross 2007).

The Late Archaic saw the onset of modern, moister conditions. This change once again demanded additional adaptations by populations in the above traditions, most notably with the planting of crops. The skill of plant cultivation spread to the Southwest culture region from Mesoamerica (Woodbury and Zubrow 1979; Neusius and Gross 2007). It should be noted that not all cultigens of Mesoamerica transferred to North America. Crops grown in the Southwest included maize, cotton, squash, and the common bean and bottle gourd. Foragers of the Southwest did not immediately give up their mobile lifeways following the adoption of crop planting. Early crops were likely “casual” with people providing minimal tending so a lost crop would not have represented a total loss of effort (Neusius and Gross 2007). However,

sedentism eventually did take place and populations increased (Irwin-Williams 1979; Neusius and Gross 2007). This was likely due to a symbiotic relationship between agriculture and population size. The better people got at agriculture, the larger the population grew. Increased populations become more dependent upon agriculture since the naturally occurring resources cannot support the higher numbers manipulated plants can. The increased dependence of a population on crops would have required people to restrict their mobility in order to consistently tend to the crops and ensure their productivity. The extreme investment made in crop productivity and populations' dependence on crops is evident in the irrigation systems developed at some sites of the Late Archaic (Neusius and Gross 2007).

Regional Traditions: Beginning and continuing on since the Archaic agriculture became widespread throughout the Southwest culture region. Subsistence became dependent upon crops, especially maize, beans, and squash. Other crops were eventually grown in the more southern areas of the Southwest where extensive irrigation systems of canals and wells were dug (Woodbury and Zubrow 1979; Neusius and Gross 2007). This is not to say that agriculture was the only means of subsistence. Hunting and seed collecting continued to play a part in obtaining food. Additionally turkeys and dogs began to be domesticated. As all of these resources became increasingly more reliable for groups, people became more sedentary and healthy. More productive areas attracted more people. So settlements in the Southwest culture region began to grow through increased births and in-migration. Architecture began to become elaborated with development of pueblos and features that were conducive to community integration, such as the multi-family pueblo dwellings (Neusius and Gross 2007).

Although these general patterns were experienced across the culture region the varying environmental conditions across the region demanded some different adaptations for survival. The settled village dwellers of the Southwest culture region are generally divided into five groups based on their unique regional traditions: the Anasazi in the Plateau country of the northern Southwest culture region, the Hohokam in the low deserts of Arizona, the Mogollan in the area from southern New Mexico west to Arizona's Verde River and south in northern Mexico, the Patayan in the Colorado River Valley and adjacent lands, and the Sinagua in the area from Flagstaff to Phoenix in Arizona. The Anasazi culture is recognized by its coil-and-scrape red and white ceramic pottery with black paint, the early construction of pithouses and masonry surface rooms that later developed into large pueblos, kivas, and cliff dwellings, likely due to population aggregation and political and social integration, and the practice of dry farming although some simple irrigation canals were developed later. The Anasazi subregion was abandoned sometime between 950 and 850 BP, likely due to environmental conditions, but was re-populated again later. The Hohokam culture is recognized by its paddle-and-anvil red or buff pottery with red paint, irrigated farming along rivers as well as flood farming in arroyo mouths, and clusters of houses built in pits developing into groups of clusters

with associated integrative facilities (i.e. ball courts, plazas, and platform mounds). The culture was centered on the Gila and Salt River basins near Phoenix, Arizona. The Mongollon culture is characterized by coil-and-scrape red- and brownwares early on with red- and black-on-white pots later and Mimbres pottery even later, pithouses that developed into surface pueblos, and dry farming supported with hunting. Early Mongollon sites tend to be walled, suggesting defense, and situated on hilltops and mesas. Site location then shifted to along rivers and on river terraces. The Patayan culture includes paddle-and-anvil pottery with buffware in the lowlands of the subregion and brown pottery in the uplands, dry masonry rock features, including walls and earth ovens, and flood agriculture along the Colorado River and rainfall farming elsewhere in the subregion supported with hunting and gathering. Settlements during the growing season were situated along rivers, where flooding and modern development have had destructive effects, and in the uplands at other times where pit and surface structures were constructed as well as making use of rockshelters. The Sinagua culture is the most poorly known of these groups. What is known is that the culture is characterized by farming, pueblo-style communities, and paddle-and-anvil red- and brownware pottery tempered with cinders or crushed volcanic rock. Many settlements have been buried by volcanic eruptions that began in 866 BP, the ash of which may have made the soils of the region more productive for agriculture attracting more people, but the northern part of the subregion was eventually abandoned around 650 BP (Neusius and Gross 2007).

As noted above, a number of abandonments occurred throughout the Southwest culture region, including Virgin Anasazi area of southeast Arizona, the Kayenta Anasazi of northern Arizona, the Mesa Verde region of southwest Colorado, most of the Sinagua region, and some parts of the Mogollan area highlands. Groups appear to have relocated and aggregated into large settlements in several localities, making them more sensitive for cultural resources of this time period. Such areas include the Rio Grande valley, west central and eastern New Mexico, and eastern Arizona. It is believed that a drought in the northern parts of the Southwest culture region, which was abandoned by 650 BP, caused these population movements. Other theories involve warfare and violence forced the movements and cooperation between some groups. However, a clear line of descendency between prehistoric populations and modern Native American populations in the Southwest culture region is apparent in the continuity of lifeways (Neusius and Gross 2007).

Historic

Spanish explorers in the Southwest were the first to have contact with the Native Americans of the culture region (Neusius and Gross 2007; Ortiz 1979a). As Spanish towns, presidios, and missions were established contact increased, particularly at missions where the intent was to introduce Christianity to native populations and were thus built near existing population centers. Although some populations rejected Christianity and Spanish governmental institutions,

they still adopted some useful items including metal plows and hoes and expanded their crops to include items like apples, peaches, and apricots. As in other areas, Native Americans participated in trade relations with the Spanish and other Europeans. Some Spanish pueblos traded with tribes of other regions, such as the Plains. Of course relations were not always so mutually beneficial though and in fact some tribes were often the adversaries of US soldiers later in time as the US continued to expand and explore westward (Neusius and Gross 2007).

Euro American Contact

The Spanish explored the region beginning in 1540s by following the Rio Grande north from Mexico. Vasquez de Coronado and his men traveled through much of the southwestern United States, ventured deep into the plains of Kansas, descended the walls of the Grand Canyon, and visited all the major Indian villages in the region. Although the gold Coronado was seeking was not found, the Spanish started settling the area soon thereafter and established a colony with the capital at Santa Fe (Neusius 2007). Other cities and towns were established primarily in river valleys and associated with existing Native American communities. Missions, military outposts and towns were founded, primarily in New Mexico, but also in Arizona and Texas to convert natives, protect settlers and solidify colonial rule. Santa Fe was founded in 1610, Albuquerque in 1706, Las Trampas in 1751, and Taos between 1780 and 1800 (Neusius 2007; National Park Service 2007). In Northern New Mexico, the Pueblo people revolted and drove out the Spanish in 1680, but the Spanish were able to return by 1692. In Arizona, Father Eusebio Kino, a Jesuit, founded the missions of Guevavi (1692) and Tumacacori (1696), near Nogales, and San Xavier del Bac (1700), near Tucson. The Spanish Empire, however, expelled the Jesuits in 1767, and those in Arizona subsequently lost their control over the indigenous people.

Mexico obtained control over the Southwest region in 1821 following the Mexican war of independence from Spain. With independence came commercial freedom and expansion of trade between Mexico and the United States. The U.S. gained control over the region during the Mexican- American War (1846-1848). Under the Treaty of Guadalupe Hidalgo parts of Colorado, Arizona, New Mexico, and Wyoming, as well as the whole of California, Nevada, and Utah were ceded to the U.S. The remaining parts of what are today the states of Arizona and New Mexico were later ceded under the 1853 Gadsden Purchase. Although military posts, stage routes, ranches, mines and American settlements were established, the region retained many of the well-established Spanish and Mexican traditions (Reeves 1905).

Trade

Missions. The Spanish colonial system was based on rights that the Pope had reserved to the monarchy which granted them newly discovered lands in the New World on the condition that they evangelize the native inhabitants. The

missions of New Spain were economic outposts in addition to opportunities to save souls. The Spanish introduced new crops, animals, industries and forms of agriculture from Europe, but also established a trusteeship labor system over the indigenous people they conquered. They had the authority to tax the people under their care and to require them to perform labor. In return, the Spanish were expected to maintain order and to provide teachings in Catholicism. Because in practice there was little respect for native populations and their traditions, they were exploited. Many of the original missions were destroyed in the Pueblo Revolt. When the Spanish returned, the economic importance of the missions waned and trade and commerce in the towns became less dependent on native labor.

Mining. Turquoise had been mined in the Ortiz Mountains south of Santa Fe and traded throughout the Southwest and Mexico long before the Spanish arrived. Other minerals were mined for use in pottery production. The search for mineral wealth was a major reason for the initial interest in the Southwest by the Spanish. Silver was discovered in the 1730s, and was much more abundant than gold (Statistical Research, Inc. 2000). After the Mexican-American War and the Gadsden Purchase, the population of the southwest grew as miners from America rushed in. Mining districts were abundant by the 1860s (Statistical Research, Inc. 2000). Gold was found in the Ortiz Mountains in 1828 (New Mexico Economic Development 2007). Copper was also a prominent mineral in southern New Mexico and Arizona, especially after the decline of the silver market in the late 1880s. Mining was originally done by placer and vein mining, but changed to open pit mining after World War II (Statistical Research, Inc. 2000). The copper industry continues to be a force in the economy. After World War II uranium became an important mineral resource in the Navajo Nation in northern Arizona and New Mexico, as did coal. Towns, made up of commercial centers, saloons, and hotels, were established in close proximity to mines in order support the miners. Many of these towns followed a boom/bust cycle and were abandoned when the mines were depleted.

Ranching. Ranching continues to be important part of the Southwest region's economy. The Spanish brought sheep, goats, cattle and horses, which became the mainstay of livestock raised in the area. Spanish land grants and Indian lands were often broken up or acquired through legal maneuvering. The Homestead Act of 1862 and the Desert Land Act of 1877 further encouraged and promoted the economic development of the arid and semiarid public lands of the Southwest. These laws opened inexpensive land to farmers and attracted settlers. The construction of rail lines was responsible for the growth of cattle ranching, because cattle could be transported via rail to markets in the eastern portions of the US. (New Mexico Economic Development 2007). Homesteading continued into the twentieth century through the end of World War I.

Western Expansion

New Mexico was recognized as a territory of the United States in 1850, Nevada became a territory in 1861, and Arizona Territory was formed in 1864. The Gadsden Purchase of 1854 added roughly 30,000 square miles of to the New Mexico Territory. More ranches and farms were established during this period, and mining was a booming part of the economy. Several towns and cities sprang up around the mines and were later abandoned as the mining industry waned and mineral deposits were depleted (Neusius 2007).

Trails

Juan Bautista de Anza. This trail was used by a party of 300 Spanish colonists, led by Colonel San Juan Bautista, from Mexico to California in 1775. The party intended to establish a mission and presidio in present-day San Francisco in order to secure the area from Russians and British colonization. The party contained thirty families, a dozen soldiers, cattle, mules, and horses. It took three months to follow the trail through the southwest desert before reaching the coast of California. It took another three months to travel from the southern coast up to the northern coast to present-day San Francisco. The trail is over 1,200 miles long (USDA Forest Service 2007). This was the first overland route established to connect New Spain with San Francisco (National Park Service 2007).

El Camino Real de Tierra Adentro. This trail dates dating back to the Spanish Colonial era during the 16th to 19th centuries, when it was the primary route between Mexico City, the Spanish capital, and other Spanish provincial towns (Bureau of Land Management 2008). From Mexico, the trail crosses briefly into West Texas at El Paso and north through New Mexico, primarily in the Rio Grande corridor to Santa Fe. The trail was also used for trade and interaction between Europeans, Spaniards, Mexicans, and Native Americans and affected settlement and development within the southwest (National Park Service 2006).

Old Spanish. This trail was first established by a Mexican trader, Antonio Armijo, in 1829. He traveled from New Mexico to Los Angeles on a commercial caravan, carrying Mexican woolen goods and planning to bring horses back from California (National Park Service 2007). Prior to the Old Spanish Trail, an overland southern route to California from New Mexico did not exist. The route was used often by traders and also traded with Native Americans along the route. The trail has been used as a Native American footpath, an early trade route, and a horse and mule trail. The trail runs through present-day Colorado, Utah, Arizona, Nevada, and California (Cultures and Histories of the American Southwest 2007).

Santa Fe Trail. The Santa Fe Trail was used for trade and commerce between Missouri and Santa Fe, New Mexico from 1821 and 1880 (National Park Service 2008). Near Cimarron, Kansas the Trail branches into two routes: the

Mountain Route through Colorado and the Cimarron Route through the Oklahoma panhandle to New Mexico (Santa Fe 2008). Except for a short hiatus during the Mexican-American War between 1846 and 1848, the trail provided international passage of goods and travelers. The trail was important in changing over time the culture of the Southwest from the Spanish and Mexican to American. Both during and after the war, the Santa Fe Trail was used heavily for freighting of military supplies to forts in the southwest. Once the railroad extended into the southwest territory, the trail was no longer used.

Railroads. Mineral wealth in the area attracted Americans living in the east to the southwest region and an efficient mode of transportation was needed (US Department of State 2007). The Gadsden Purchase allowed the development of a southern route across the continent. The Atchison, Topeka, and Santa Fe rail lines were constructed in New Mexico by the late 1800s. The Southern Pacific Railroad went through Arizona from the west and into New Mexico. There, it met the Atchison, Topeka, and Santa Fe rail lines in Deming in 1881 (New Mexico Economic Development 2007). The development of this railroad network served the primary purpose of exporting mineral resources out of the southwest. However, as the Southern Pacific Railroad developed westward, and the Atchison, Topeka, and Santa Fe lines linking it to the north, Albuquerque quickly became an important hub of commerce and travel. The Southern Pacific line provided a link to the east coast, which fostered the “Americanization” of the southwestern states, bringing settlers, goods, industry, and missionaries. The Atchison, Topeka, and Santa Fe lines provided a north-south movement of the same. Albuquerque was advertised as a premiere destination for emigrants traveling from the east (Dreesen 1980).

CULTURAL RESOURCES REFERENCES

Alaska History and Cultural Studies

2007 *Modern Alaska: Oil Discovery and Development in Alaska*. Internet Web site: www.akhistorycourse.org/articles.

Alaska Railroad

2008 *The Alaska Railroad-History*. Internet Web site: <http://www.akrr.com>

American West 2007. The Mormon Pioneer Trail.

Website: <http://www.americanwest.com/trails/pages/mormtrl.htm>.

Ames, Kenneth M., Don E. Dumond, Jerry R. Galm, and Rick Minor

1998 "Prehistory of the Southern Plateau." In *Handbook of North American Indians*, Volume 12 – Plateau. Deward E. Walker, Jr., Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Billington, Ray Allen

1963 *Westward Expansion: A History of the Western Frontier*. The Macmillan Company.

Borneman, Walter R

2003 *Alaska: Saga of a Bold Land*. Harper Collins Publishers, New York.

Bureau of Land Management (BLM)

2004 *Desert Land Entries*. Lands and Realty Publication. Internet Web site: <http://www.blm.gov/nhp/what/lands/realty/pubs/desert/>.

2007 *National Landscape Conservations System: National Scenic and Historic Trails*. Internet Web site: <http://www.blm.gov>.

2007 National Historic Oregon Trail Interpretive Center. Internet Web Site: www.blm.gov/or/oregontrail/history-basics.php.

California Historical Society

2000 California Historical Society. *California History Online*, Internet Web site: <http://www.californiahistory.net/goldFrame-rushed.htm>.

California State Railroad Museum Foundation

2001 "Rails to the Pacific." *California State Railroad Museum*. Internet Web Site: <http://www.csrmf.org/doc.asp?id=345>

Carlson, Roy L.

1990 "Cultural Antecedents." In *Handbook of North American Indians*, Volume 7 – Northwest Coast. Wayne Suttles, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Castillo, Edward D. 1978. The Impact of Euro-American Exploration and Settlement. In, *Handbook of North American Indians, California, Vol. 8*, R. F. Heizer, editor, pp. 99-127. Smithsonian Institution Press, Washington D.C.

Chatters, James C. and David L. Pokotylo

1998 "Prehistory: Introduction." In *Handbook of North American Indians*, Volume 12 – Plateau. Deward E. Walker, Jr., Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

City of Tumwater, Washington

2005 *The Oregon Trail*. Internet Web site: <http://www.ci.tumwater.wa.us/researchOTpg14.htm>.

Clark, Donald W.

1981 "Prehistory of the Western Subarctic." In *Handbook of North American Indians*, Volume 6 – Subarctic. June Helm, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Cultures and Histories of the American Southwest

2007 *The Old Spanish Trail*. Southwest Crossroads. Internet Web Site: <http://southwestcrossroads.org/record.php?num=717&hl=The::Old::Spanish::Trail>.

D'Azevedo, Warren L.

1986 Key to Tribal Territories. In *Handbook of North American Indians*, Volume 11 – Great Basin. Warren L. D'Azevedo, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Damas, David

1984a "Introduction." In *Handbook of North American Indians*, Volume 5 – Arctic. David Damas, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1984b Key to Tribal Territories. In *Handbook of North American Indians*, Volume 5 – Arctic. David Damas, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1984c *Handbook of North American Indians*, Volume 5 – Arctic. David Damas, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

DeMallie, Raymond J.

2001 Key to Tribal Territories. In *Handbook of North American Indians*, Volume 13, Part 1 – Great Plains. Raymond J. DeMallie, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Dreesen, Donald S., 1980. Glimpses of the Early History of Huning's Highland Addition. Photocopy of Typescript. Catalogue No. 2007.1.157.

Dumond, Don E. 1984 "Prehistory: Summary." In *Handbook of North American Indians*, Volume 5 – Arctic. David Damas, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Frison, George C.

2001 "Hunting and Gathering Tradition: Northwestern and Central Great Plains." In *Handbook of North American Indians*, Volume 13, Part 1 – Great Plains. Raymond J. DeMallie, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Giannini Foundation of Agricultural Economics

2007 *A Stylized History of California Agriculture from 1769 to 2000*, Volume 16: 1997-1999. University of California.

Goddard, Ives

2001 "The Languages of the Great Plains: Introduction." In *Handbook of North American Indians*, Volume 13, Part 1 – Great Plains. Raymond J. DeMallie, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Gunnerson, James H.

2001 "Great Plains Village Tradition: Western Periphery." In *Handbook of North American Indians*, Volume 13, Part 1 – Great Plains. Raymond J. DeMallie, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Hayes, Derek

1999 *Northwest Pacific Discovery Maps*. Sasquatch Books, Seattle.

Heizer, Robert F.

1978a *Key to Tribal Territories*. In *Handbook of North American Indians*, Volume 8 – California. Robert F. Heizer, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1978b *Handbook of North American Indians*, Volume 8 – California. Robert F. Heizer, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1978c "The Impact of Euro-American Exploration and Settlement." In *Handbook of North American Indians*, Volume 8 – California. Edward D. Castillo, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Helm, June

1981a "Introduction." In *Handbook of North American Indians*, Volume 6 – Subarctic. June Helm, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1981b Key to Tribal Territories. In *Handbook of North American Indians*, Volume 6 – Subarctic. June Helm, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1981c *Handbook of North American Indians*, Volume 6 – Subarctic. June Helm, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Irwin-Williams, Cynthia

1979 "Post-Pleistocene Archeology, 7000 – 2000 B.C." In *Handbook of North American Indians*, Volume 9 – Southwest. Alfonso Ortiz, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Library of Congress

2005 *The Treaty of Guadalupe Hidalgo*. Online Collections, Hispanic Reading Room. Internet Web site: <http://www.loc.gov/rr/hispanic/ghtreaty/>.

2006 *American Memory: California as I Saw It: First Person Narratives of California's Early Years 1849-1900*. Internet Web site: <http://memory.loc.gov/ammem/cbhtml/cbhome.html>.

Jennings, Jesse D

1986 "Prehistory: Introduction." In *Handbook of North American Indians*, Volume 11 – Great Basin. Warren D'Azevedo, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Johnston, B.

1994 *California Field Crops: Location and Trends in Acreage, Yields, and Production 1945-1991*. Giannini Foundation of Agricultural Economics, University of California.

2007 USDA Forest Service. *Recreational Activities: America's National Trails System* Internet web site: www.fs.fed.us/recreation/programs/trails/nat_trails.shtm.

Joseph, Alvin M., Jr.

1965 *The Nez Perce Indians and the Opening of the Northwest*. Yale University Press, New Haven, Connecticut.

National Park Service

2008 *History and Culture*. Internet Web site: <http://www.nps.gov/safe/historyculture/index.htm>.

2007 *Discover Our Shared Heritage: the American Southwest*. Internet Web site: <http://www.nps.gov/nr/travel/amsw/intro.htm>

2006 *The Homestead Act, in the Homestead National Monument of America*. Internet Web site: http://www.nps.gov/home/homestead_act.html.

2006 *El Camino Real de Tierra Adentro National Historic Trail*. Internet Web site: <http://www.nps.gov/elca/historyculture/index.html>.

2007 Fort Laramie. <http://www.nps.gov/archive/foia/laramie.htm>.

National Science Foundation

2007 *Traditional Whaling in the Western Arctic*. Office of Polar Programs. Internet Web site: http://www.uark.edu/misc/jcdixon/Historic_Whaling/index.htm.

Neusius, Sarah W. and G. Timothy Gross

2007 *Seeking Our Past: An Introduction to North American Archaeology*. Oxford University Press, NY.

2007 National Park Service, US Department of the Interior. Juan Bautista de Anza National Historic Trail. Internet Web site: www.nps.gov/juba.

New Mexico Economic Development

2007 *Quality of Life: New Mexico's Colorful History and Cultural Diversity*. www.eddstate.nm.us.

1979 "History of Pueblos since 1821." In *Handbook of North American Indians*, Volume 9 – Southwest. Alfonso Ortiz, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Oregon Secretary of State

2007 *Crafting the Oregon Constitution*. Oregon State Archives. Internet Web site: www.arcweb.sos.state.or.us.

Oregon State Office, Bureau of Land Management

2007 *National Historic Oregon Trail Interpretive Center*. Basic Facts about the Oregon Trail. Internet Web site: <http://www.blm.gov/or/oregontrail/history-basics.php>.

Ortiz, Alfonso

1979a "Introduction." In *Handbook of North American Indians*, Volume 9 – Southwest. Alfonso Ortiz, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1979b Key to Tribal Territories. In *Handbook of North American Indians*, Volume 9 – Southwest. Alfonso Ortiz, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Parks and Recreation in Sonoma County

2007 *History of the Russian Settlement of Fort Ross, California*. Internet Web site: <http://www.parks.sonoma.net/rosshist.html>.

Reeves, Jesse S. 1905. "The Treaty of Guadalupe Hidalgo", *The American Historical Review*, 10 (Jan. 1905), 309-324

Roll, Tom E. and Steven Hackenberger

1998 "Prehistory of the Eastern Plateau." In *Handbook of North American Indians*, Volume 12 – Plateau. Deward E. Walker, Jr., Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Santa Fe Trail Website (Santa Fe)

2008 Santa Fe Trail Association. Internet Web site: <http://www.santafetrail.org/states/new-mexico.htm>.

Schwantes, Carlos A.

1989 *Pacific Northwest: An Interpretive History*. University of Nebraska Press. Lincoln and London

Scott, W.D.

1952 *History of the United States in the American Peoples Encyclopedia*, Volume 19. F. Meine, Editor. Spencer Press, Chicago, Illinois.

Shiple, William F.

1978 "Native Languages of California." In *Handbook of North American Indians*, Volume 8 – California. Robert F. Heizer, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Statistical Research, Inc.

2001 Mack, Scott and Toupal, Rebecca. *Cultural Landscapes: History in Southern Arizona*.

Suttles, Wayne

1990a "Introduction." In *Handbook of North American Indians*, Volume 7 – Northwest Coast. Wayne Suttles, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1990b Key to Tribal Territories. In *Handbook of North American Indians*, Volume 7 – Northwest Coast. Wayne Suttles, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Swagerty, W.R.

2001 "History of the United States Plains until 1850." In *Handbook of North American Indians*, Volume 13 – Plains. J.J. DeMallie, Volume Editor. Smithsonian Institution, Washington, D.C.

The Mormon Trail

2003 American West. Frontier Trails. Internet Web site: www.americanwest.com/trail/pages/mormtril.htm

US Department of the Interior, Bureau of Land Management

2007 *Iditarod National Trail History*. Internet Web site:
www.blm.gov/ak/st/ed/prog/sa/Iditarod/history.html.

2007 *Applegate Lassen Emigrant Trail. Alturas Field Office* Bureau of Land Management. Internet Web site: <http://www.blm.gov/ca/st/en/fo/alturas/lass.html>.

US Department of State

2007 *Gadsden Purchase 1853-1854*. Internet Web Site:
<http://www.state.gov/r/pa/ho/time/dwe/87721.htm>

2008 *An Outline of American Geography. Chapter 11: The Great Plains and Prairies*. Website:
<http://usinfo.state.gov/products/pubs/geography/geog11.htm>

University of Washington

2007 *History of Washington and the Pacific Northwest*. Internet Web site:
www.washington.edu/uwired/outreach.

USDA Forest Service

2003 *Recreational Activities: America's National Trails System: Pacific Crest Trail*. Internet Web site: <http://www.fs.fed.us>

Waldman, Carl

2000 *Atlas of the North American Indian*, Revised edition. Checkmark Books, New York, NY.

Walker, Jr., Deward E.

1998a *Key to Tribal Territories*. In *Handbook of North American Indians*, Volume 12 – Plateau. Deward E. Walker, Jr., Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

1998b “Introduction.” In *Handbook of North American Indians*, Volume 12 – Plateau. Deward E. Walker, Jr., Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Wallace, William J.

1978 “Post-Pleistocene Archaeology, 9000 to 2000 B.C.” In *Handbook of North American Indians*, Volume 8 – California. Robert F. Heizer, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Washington State History Online Encyclopedia.

2008 Internet Web site: <http://www.historylink.org/results.cfm>.

Webb, Walter Prescott.

1931 *The Great Plains*. Ginn and Company, Boston.

Woodbury, Richard B.

1979 "Prehistory: Introduction." In *Handbook of North American Indians*, Volume 9 – Southwest. Alfonso Ortiz, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Woodbury, Richard B. and Ezra B. W. Zubrow

1979 "Agricultural Beginnings, 2000 B.C. – A.D. 500." In *Handbook of North American Indians*, Volume 9 – Southwest. Alfonso Ortiz, Volume Editor. William C. Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

This page intentionally left blank.