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**APPENDIX E**  
**CULTURAL BACKGROUND OF THE SALTON SEA AREA**

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# **APPENDIX E**

## **CULTURAL BACKGROUND OF THE SALTON SEA AREA**

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The following is a brief summary of the cultural background of the Salton Sea region. A more detailed presentation of this information is provided within the Salton Sea Cultural Resources Class 1 Survey Report (Smith et al. 1999).

### **E.1 PRE-CONTACT HISTORY**

The pre-contact history of the Salton Sea basin can be characterized into three general periods: the Paleoindian, the Archaic, and the Patayan. Brief summaries of these periods are presented here.

The Paleoindian Period lasted from approximately 10,000 to 7,000 years before present (BP), and represented a hunting-gathering lifestyle focusing on Pleistocene megafauna. This period is manifested in the Colorado Desert by the San Dieguito complex. This technological complex describes an assemblage of bifaces, choppers, scrapers, crescents, and other tools associated with a hunting-gathering economy. Three separate phases are represented in this complex, each reflecting a developmental sequence toward increasing technological complexity and diversity. Sites from this period are generally lithic scatters or rock features on the surface of deflated desert pavements, near major drainage areas, or along the shorelines of Pleistocene lakes (Apple et al. 1997).

The Archaic Period is characterized as a more diverse hunting-gathering tradition, which lasted from approximately 7,000 to 1,200 years BP. This period is poorly represented in the Colorado Desert region, and Hayden (1976) suggests that this area may have been largely abandoned due to warm and dry conditions characterizing the Middle Holocene. Sites dating from the Archaic also may have been eliminated by natural site formation processes or obscured by later settlements (M. Weide 1976). The ephemeral evidence currently suggests Archaic Period hunting-gathering populations with affinities to the Pinto Basin Complex (Moratto 1984). Excavated sites, in

combination with radiocarbon dates and a burial recovered in Truckhaven (Barker et al. 1973), provides some indication that this area was not completely abandoned during the Archaic Period. In rockshelter deposits, larger points indicative of the Archaic Period are gradually replaced by Cottonwood Triangular and Desert Side-notched points, which, along with the presence of pottery, are clear indications of the cultural transition to the Patayan Period.

The Patayan Period began after 1,200 years BP and lasted until the first Spanish explorers reached the area. Most archaeological sites identified near the Salton Sea have been from the Patayan Period, yet the Patayan are still considered one of the least understood Southwestern prehistoric cultures (Reid and Whittlesey 1997). The Patayan have been characterized as small dispersed groups who were exceptionally mobile. It is believed that pottery techniques and floodplain agriculture were adopted from Mexican groups who traveled or traded up the Colorado River (Rogers 1945). A shift in burial patterns from internments to cremations also is considered characteristic of this general cultural transition.

The Patayan Period has been separated into three phases that characterize changes in pottery types that coincide with the cyclic filling of Lake Cahuilla (Waters 1984). The Patayan I Phase (1,200 to 950 years BP) describes the beginning of a strong Patayan influence from western Arizona into the Colorado Desert (Waters 1982). This influence is evidenced by the occurrence of Buff and Brown pottery in common Patayan vessel forms, as well as the adoption of Cottonwood and Desert Side-notched projectile points (Moratto 1984).

The discontinuation of certain specific pottery traits and the subsequent adoption of new pottery characteristics mark the Patayan II Phase of the Colorado Desert, lasting from 950 to 450 years BP (Waters 1982). During this phase, Patayan pottery use expands rapidly to encompass the new shoreline of Lake Cahuilla, then filling much of the Salton Trough. Researchers have identified more than ten discrete pottery types from this phase. Subsistence patterns indicate a reliance on lacustrine (lake) resources to augment hunted game and gathered plant resources.

The Patayan III Phase of the Colorado Desert (450 years BP to European contact) is characterized by large population shifts triggered by the evaporation of Lake Cahuilla (Rogers 1945; Wilke 1978; Waters 1982). Colorado Buff becomes the principal pottery ware during this phase. Researchers have suggested that groups on the western side of Lake Cahuilla moved into the foothills and mountains of western California and Mexico (Waters 1982). Other groups may have moved to the Colorado River Valley and extended to the river delta (Rogers 1945). The Patayan Period ends with European contact and the accompanying post-contact cultural changes.

## **E.2 ETHNOHISTORY**

There are nine linguistically and culturally distinct Native American groups known to have occupied the California portion of the Salton Sea basin. These groups include the Cahuilla, Cocopah, Cupeño, Digueño (Tipai/Kumeyaay/Ipai), Kamia, Mohave,

Quechan, Serrano, and Southern Paiute (Chemehuevi). Several groups from Baja California also utilized resources from the study area including the Paipai, Kiliwa, and Nākipa. Each of these groups is briefly discussed below.

### **E.2.1 Cahuilla**

The Cahuilla territory was near the geographic center of southern California. The territory was bounded to the north by the San Bernardino Mountains, to the south by the Borrego Springs and the Chocolate Mountains, to the east by a portion of the Colorado Desert west of Orocopia Mountain, and to the west by the San Jacinto Plain near Riverside and the eastern slopes of Palomar Mountains. Cahuilla villages were near water sources in the canyons or on alluvial fans. The diversity of the territory provided the Cahuilla with a variety of foods, including acorns, mesquite, screw beans, piñon nuts, and various types of cacti. A marginal agricultural existence provided corn, beans, squashes, and melons. Rabbits and small animals were hunted to supplement the diet (Bean 1978). At the time of Spanish contact, the Cahuilla population numbered approximately 6,000. Their political and economic autonomy was maintained until 1877 when the federal government started to establish reservations in the area (Bean 1978).

### **E.2.2 Cocopah**

The Cocopah lived in portions of the southwestern United States and Mexico along the Colorado River and its delta. The region provided a natural habitat for flora and fauna. A wide variety of fish, game, and vegetal foods was available, and the Cocopah planted corn, squash, and beans on a seasonal basis. Population estimates for the Cocopah at the time of Spanish contact numbered at least 5,000 to 6,000. The Gadsden Purchase in 1853 established an international boundary through what was Cocopah territory. In 1917 the government granted the Cocopah three small areas designated as reservation land. In 1974, enrolled membership of the American Cocopah numbered 504. In 1976, a total of 205 Cocopah lived in Baja California and Sonora (DeWilliams 1983).

### **E.2.3 Cupeño**

The Cupeño occupied a small mountainous area approximately 10 miles in diameter, bordering the San Luis Rey River and Lake Henshaw. Approximately 750 people lived in two permanent villages within a broad open valley of San Jose de Valle. Each village maintained its own clan leader and was politically independent. The Cupeño diet included acorns, small seeds, berries, cactus fruit, deer, quail, rabbits, and other small animals (Bean and Smith 1978a). In the years following 1810, the Spanish began building *asistencias*, which were inland outposts of the coastal missions, and the settler's cattle grazed on Cupeño lands. Territorial conflicts over land and treatment of the clan members by the Europeans came to an end in the late 1800s when the Supreme Court ordered the Cupeños removed to Pala Reservation in Luiseño territory. It is estimated that the Cupeño population today numbers approximately 150 (Bean and Smith 1978a).

### **E.2.4 Diegueño (Tipai/Kumeyaay/Ipai)**

The Diegueño include three separate subgroups that are linguistically and culturally similar. Therefore, the three groups are discussed below under the category of Diegueño. The territory of the Diegueño extended north from Todos Santos Bay near

Ensenada, Mexico, to the mouth of the San Luis Rey River in the northern portion of San Diego County, and east to the Sand Hills bordering the Imperial Valley. The Tipai and Kumeyaay occupied the southern portion of the territory, while the Ipai inhabited the northern region. The primary source of subsistence was vegetal food. Seasonal travel followed the ripening of plants from the valley floor to higher elevations of the mountain slopes. Deer, rodents, and birds provided meat as a secondary source of sustenance. Families also gathered piñon nuts and acorns in the higher altitudes. Structures varied with the seasons, summer shelter consisted of a windbreak, trees, or a cave fronted with rocks. Winter dwellings had slightly sunken floors with dome-shaped structures made of brush thatch covered with grass and earth (Luomala 1978). In 1775, the seminomadic life was changed by the mission influence. Through successive Spanish, Mexican, and Anglo-American control, the Diegueño were forced to live a sedentary lifestyle, to adapt to agriculture, and to accept Christianity (Luomala 1978).

### **E.2.5 Kamia**

The Kamia also identified with the Diegueño groups that occupied nearly the entire southern portion of the present state of California and portions of Baja California. Kamia inhabited the back channels of the Colorado River in the Imperial Valley and some areas on the main river (Luomala 1978). According to Kroeber (1925), they also inhabited portions of the mountains from the Salton Sea to San Diego. Groups living in the Imperial Valley depended on agricultural products, and others living in the mountain areas hunted small game and foraged for wild plants (Luomala 1978). Cremation was practiced, and the ashes were placed in a pottery jar and buried or hidden in a cluster of rocks. Christianity and the establishment of the missions created hostility among the Kamia for many years. However, as their influence persisted the priests became successful in their efforts. It is estimated the Diegueño (including the Kamia) reached a population of 3,000 during the Mission Period (1769 to 1821). By the 1920s, it was between 700 and 800 (Kroeber 1925).

### **E.2.6 Mohave**

The Mohave was the northernmost and largest of the Yuman-speaking tribes along the lower Colorado River. The Mohave had little political organization and no true villages but lived in settlements or rural neighborhoods scattered throughout the valleys. Most of the year, open-sided shades (ramadas) provided shelter, while more substantial sand-covered houses were used in the winter. The Mohave primarily depended on farming in the lowlands along the river for subsistence, supplementing their diet with fishing and gathering wild plants. The principal crop was maize (corn). In times of drought, the Mohave relied more heavily on hunting, fishing, and gathering. At death, the body was cremated with personal possessions (Stewart 1983).

The first Spanish explorer reached the Mohave Valley in 1776 and estimated the Mohave population at 3,000. Apprehensive of the increasing numbers of settlers entering their territory, the Mohave attacked a wagon train in 1858. As a result, Fort Mohave was established, and soon the Mohave were defeated. Today, many of the Mohave people live on the Colorado River Reservation, with income from irrigated farms and leases of reservation land to nontribal residents (Stewart 1983).

**E.2.7 Quechan**

The Quechan territory was situated between the confluence of the Gila and Colorado rivers to the north and south and is divided between the present day states of California and Arizona. Plant gathering in addition to cultivation provided a balance to the Quechan diet. Planted fields produced maize, tepary (a type of bean), melons, watermelons, black-eyed beans, pumpkins, and muskmelons. Winter wheat was harvested prior to the spring floods. Hunting game was minimal due to the harsh desert terrain (Bee 1983). The Spanish, Mexicans, and Anglos found the confluence of the Colorado and Gila rivers of great importance for early migration. Shortly after 1776, the Spanish established two major settlements near the rivers. A period of unrest pursued as the settlers turned to the Quechan fields for food and Spanish authority persisted over the native people. Quechan resistance continued until the US Army built a small garrison in 1852. In 1884, a reservation was established for the Quechan on the west side of the Colorado River (Bee 1983).

**E.2.8 Serrano**

The Serrano occupied an area in the San Bernardino Mountains extending west to the Cajon Pass, north to Victorville, east as far as Twentynine Palms, and south to the Yucaipa Valley. The Serrano were mainly hunters and gatherers, and they occasionally fished. Hunted game included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetal staples consisted of acorn, piñon nuts, bulbs and tubers, shoots and roots, berries, mesquite, barrel cacti, and Joshua tree. Settlement locations were determined by water availability, and most Serranos lived in small villages near water sources. Houses and ramadas were round and constructed of poles covered with bark and tule mats. The Serrano practiced cremation up until Spanish contact. By 1834, most of the Serrano were relocated to Spanish missions and today live either on the Morongo or San Manuel reservations (Bean and Smith 1978b). In 1975, descendants of the Serrano numbered approximately 100.

**E.2.9 Southern Paiute (Chemehuevi)**

The Chemehuevi are one of 16 identified Southern Paiute groups. The main territory occupied by the Southern Paiute-Chemehuevi group was west of the Colorado River, extending approximately from present-day Blythe to just north of Needles and into California halfway to Twentynine Palms (Kelly and Fowler 1986; Earle 1997). Large game was hunted, but small game was the chief source of protein. Plant foods included piñon nuts, roots, agave, seeds, and berries. Some horticulture was being practiced at the time of Spanish contact in the 1770s (Earle 1997). Settlement was mobile and scattered, with recurrent residence in specific locations. Structures varied according to the season. During the winter, the Chemehuevi lived in earth-covered dwellings or caves (Kelly and Fowler 1986).

As early as the end of the 18th century, some Southern Paiute-Chemehuevi were being either enslaved or baptized in the Spanish settlements. In response, some Chemehuevi raided travelers along the Old Spanish Trail from the 1850s to the early 1870s. During that time, efforts were made to settle the Chemehuevi on the Colorado River

Reservation, but many did not agree to move there until the 20th century. In 1980, the Southern Paiute-Chemehuevi numbered approximately 124 (Kelly and Fowler 1986).

### **E.2.10 Baja California Groups**

In addition to the above-mentioned tribes, the Paipai, Kiliwa, and Ñakipa spoke languages similar to the California groups and may have seasonally frequented areas of the Salton Basin. While primarily residing in Mexico, these groups shared a pan-Yuman commonality of language, technology, and ceremonial practices (Massey 1992). Broken into patrilineal bands, these groups lived in semipermanent settlements or rancherias containing 50 to 200 people. Subsistence was based on hunting, gathering, and fishing, with seasonal migrations to food sources (Massey 1992). Following Spanish settlement of the region, populations were drastically diminished due to disease. The Ñakipa group eventually became extinct. The Kiliwa and Paipai are the only two Baja California groups with traditional ties to the Salton Sea basin that remain as culturally distinct entities.

## **E.3 POST-CONTACT HISTORY**

The history of the Salton Sea region since European contact can be divided into periods of exploration, transportation, irrigation and creation of the Salton Sea, mining, modern military, and recreation. A summary of these themes is provided below.

### **E.3.1 Exploration**

In 1769, the Spanish began to establish a series of missions in Alta California that stretched from San Diego to Sonoma. Transporting supplies, soldiers, and colonists by sea from Mexico to the new outposts was expensive, creating the need for a route across the Colorado Desert (Pourade 1971; Bannon 1974). In 1771, Father Francisco Garcés reached the southern end of the Imperial Valley and became the first European to see the Salton Sink region. In 1774, Captain Juan Bautista de Anza, accompanied by Garcés, reached San Gabriel Mission near Los Angeles from Arizona, having accomplished the first European crossing of the Colorado Desert and the Salton Sink (Hoyt 1948; Dowd 1960; Pourade 1971; Bannon 1974).

In November 1825 a Mexican Army expedition traveled through San Geronio Pass and along the eastern side of the Salton Sink, turning east and reaching the Colorado River near present-day Blythe. Because they reported that the route was not practical, this route was little used for the remainder of the Mexican period, which ended in 1848 (Hoyt 1948; Johnston 1977; Nordland 1977). In 1826, the southerly Yuma to San Diego route was named the official road from Sonora to Alta California. This route was used by US Lieutenant-Colonel W. H. Emory, who passed through the southern portion of the Imperial Valley and Salton Sink in 1846 and again the following year when he accompanied General Kearny's US Army expedition through the area. In 1848, the Mormon Battalion followed Kearny's route, establishing a wagon road (Cory 1915; Dowd 1960; Fitch 1961; Duke 1974; Morton 1977).

### **E.3.2 Transportation**

In 1853, the US government funded an expedition to survey a transcontinental railroad route. This group passed along what would become the eastern shore of the Salton Sea. The same year, another expedition built a wagon road through San Geronio Pass and across the Coachella Valley (Cory 1915; Hoyt 1948; Dowd 1960).

In 1862, when gold was discovered near the Colorado River in Arizona, a group of Los Angeles businessmen hired William D. Bradshaw to find a direct route east from the San Geronio Pass. Bradshaw's route left the old wagon road at Dos Palmas oasis, east of the present northeastern shore of the Salton Sea, and continued along Indian trails to the Colorado River just northeast of present-day Blythe. Cattlemen and merchants soon began using the Bradshaw Trail to supply the gold miners. Before the railroad was completed to Yuma in 1877, stage lines linked with the tracks at Dos Palmas Station and continued along the trail into Arizona (Fitch 1961; De Stanley 1966; Pepper 1973; Duke 1974; Johnston 1977; Nordland 1977; Ross 1992).

By 1876, the first Southern Pacific train had reached Indian Wells (Indio). In 1877, the tracks finally extended to Yuma, Arizona. A southern branch line from Niland to Calexico was built in 1904. That same year, a rail line was constructed to connect El Centro and Holtville. Lines from El Centro to Seely, Calipatria to Sandia, and Sandia to Holtville were completed between 1910 and 1930. A connection between El Centro and San Diego was completed in 1919 (Hoyt 1948; Fitch 1961; Lamb 1992).

### **E.3.3 Irrigation and the Creation of the Salton Sea**

In 1891, the Colorado River Irrigation Company was formed to provide irrigation for agriculture in the Imperial Valley, but it soon ran into financial difficulties. Engineer Charles R. Rockwood formed a new company in 1896 to pursue the goal of providing irrigation for the Imperial Valley (Cory 1915; Kennan 1917; Fitch 1961; Nordland 1977).

Work on the Imperial Canal was begun in 1900, with Pilot Knob, about one mile north of the international boundary, chosen as the diversion point on the Colorado River. New canal segments were constructed, and portions of the Alamo River were used. The Central Main Canal was built northward from Calexico, and in 1902 irrigation of the Imperial Valley began. Agricultural development of the sink exceeded expectations. The towns of Mexicali, Calexico, Heber, Imperial, and Brawley were founded. By 1905, more than 120,000 acres were under cultivation (Cory 1915; Kennan 1917; Dowd 1960; Fitch 1961).

In 1903, the US government tried to stop diversion of Colorado River water for use in the Imperial Valley. For that reason, and to bypass increased silting at the original intake, the California Development Company built a canal head in Mexico. A series of floods in 1905 destroyed a temporary dam and eroded the new canal intake. Water then rushed into the Imperial Canal-Alamo River system, allowing the entire discharge of the Colorado River to pour into the Salton Sink, creating the Salton Sea (Cory 1915; Kennan 1917; Fitch 1961; Duke 1974; Woerner 1989).

After the floods had subsided, work on a diversion dam began. This first attempt to control the river failed. A second attempt to control the flow consisted of a permanent concrete flow gate. In 1906, a flood choked the gate with silt and debris, and again water rushed back into the Imperial Canal toward the Salton Sea. Immense quantities of rock were then unloaded along two large wooden trestles built in a curve across the river. On February 10, 1907, the break was closed, and the flow into the Salton Sink ended after a two-year struggle (Cory 1915; Kennan 1917; Fitch 1961; Duke 1974; Woerner 1989).

Unstable political relations with Mexico led to a plan in 1919 to construct a canal on the US side of the border. The Coachella Valley County Water District, formed in 1918, cooperated with the Imperial Irrigation District, which had been established in 1911, to plan and promote the new canal. In December 1928 Congress passed the Boulder Canyon Project Act, which initiated the construction of Hoover and Imperial dams and the All American canal system. By February 1942 the canal was supplying the Imperial Valley with water. A branch was completed in 1948 to service the Coachella Valley (Dowd 1960; Fitch 1961; Nordland 1977, 1978). Today, the IID provides water for 6,471 square miles in the Imperial Valley (Imperial Irrigation District 1998). The Coachella Valley Water District services approximately 1,000 square miles (Coachella Valley Water District 1999).

#### **E.3.4 Mining**

Salt has been an important resource in this region, having accumulated for centuries at the bottom of the Salton Sink. The first European-American exploitation of the salt deposits was in 1884, when the New Liverpool Salt Company built a plant at the north end of the sink. Soon, a second salt enterprise began operations nearby, and a rivalry continued until 1905, when both were inundated by the rising Salton Sea. A number of salt mines and evaporation ponds operated on the shores of the Salton Sea and Mullet Island until the 1940s (Fitch 1961; De Stanley 1966).

Calcite was mined from the mountains west of the Salton Sea and was used in the manufacture of optical gun sites during World War II. Wells drilled at the southeastern end of the Salton Sea once tapped into carbon dioxide deposits that were used to produce dry ice. In the early 1950s, sea level rose and submerged the well heads, ending production. In the early 1920s, the Imperial Valley Gypsum and Oil Corporation began gypsum quarrying for cement production in the Fish Mountains and built a mill that is still operational 16 miles west of El Centro at Plaster City (Fitch 1961; Lamb 1992).

#### **E.3.5 Modern Military**

In 1942, the California-Arizona Maneuver Area and the Desert Training Center were established by General George S. Patton. The maneuver area stretched from western Arizona northwest to the eastern Mojave Desert of California, crossing the study area several miles east of the Salton Sea. Camp Young, headquarters of the Desert Training Center, was located near Chriaco Summit, approximately 17 miles northeast of the Salton Sea (Ross 1992).

In 1942, the US Navy constructed a sea plane base at the southwestern end of the Salton Sea. After World War II, this area was named the Salton Sea Test Base, and its focus turned to the testing of new weapons technology, including test drops of inert nuclear weapons (Apple et al. 1997). The base is now closed. The US Navy also maintains the extensive Chocolate Mountain Naval Aerial Gunnery Range, occupying most of the mountain range east of the Salton Sink. The Navy also reserves several smaller areas to the east and west of Brawley and El Centro for such activities as a parachute drop zone.

### **E.3.6 Recreation**

Recreational activities precipitated several major developments around the Salton Sea shore. The CDFG was stocking the Sea with numerous game species by the 1920s. Several federal and state wildlife refuges were established in 1952 and were opened to hunting for ducks and geese. Other recreational activities that take place in the Salton Sea area include swimming, boat racing, water skiing, birding, hiking, and mineral and fossil collecting. Several movies have been filmed at the Sea and in the nearby desert (Fitch 1961; De Stanley 1966).

In 1958, communities such as Salton City, Salton Beach Estates, Desert Shores, and North Shore Beach Estates were all established. These settlements offered marinas, restaurants, motels and hotels, golfing, and boat-launching facilities for visitors, as well as planned residential communities, schools, and yacht clubs for residents (De Stanley 1966). For various reasons, including distance from southern California population centers, increasing salinity, pollution of the Salton Sea, and fluctuating Sea surface levels, these resorts have not achieved the popularity their developers originally envisioned.