KERN COUNTY ARCHAEOLOGICAL SOCIETY, INC.
JOURNAL
Number Two

Chief Editor, Ruth M. Riles

Spring 1984

Kern County Archaeological Society, Inc.
Post Office Box 2719
Bakersfield, California 93303-2719

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THIS ISSUE OF THE KERN COUNTY ARCHAEOLOGICAL SOCIETY JOURNAL, NO. 2, is dedicated to Mr. and Mrs. Jerry McCarthy of Caliente, California. Mr. McCarthy was noted for his keen interest in the history and archaeology of the area.

THE McCARTHYS OF CALIENTE

Beverly J. Foster & Millie A. Wheeler

For the past three years, the Kern County Archaeological Society has had an ongoing archaeological research project near the town of Caliente in the Tehachapi Mountains. The site of the dig is the historic McCarthy Ranch.

In conjunction with the archaeological research we have interviewed various members of the McCarthy family as well as other Caliente citizens. The purpose of these interviews was to collect historical information on the site and its environs.

The oral history of Mrs. Phyllis McCarthy was taken at her home on August 21, 1982. Her daughter, Mary Vestal, was present during the interview. Unfortunately, Jerry McCarthy was not interviewed prior to his death at the age of eighty-one on April of 1982.

The McCarthy Ranch is located south of Caliente just west of the eastern boundary of the old Spanish Land Grant of El Tejon.

> *The Rancho El Tejon was the third grant in the South San Joaquin Valley. It was given to Jose Antonio Aguirre and Ignacio del Valle in 1843.* (Giffen 1942:7)

The Ranch came into the McCarthy hands about one hundred years ago when it was purchased by Jerry McCarthy I.

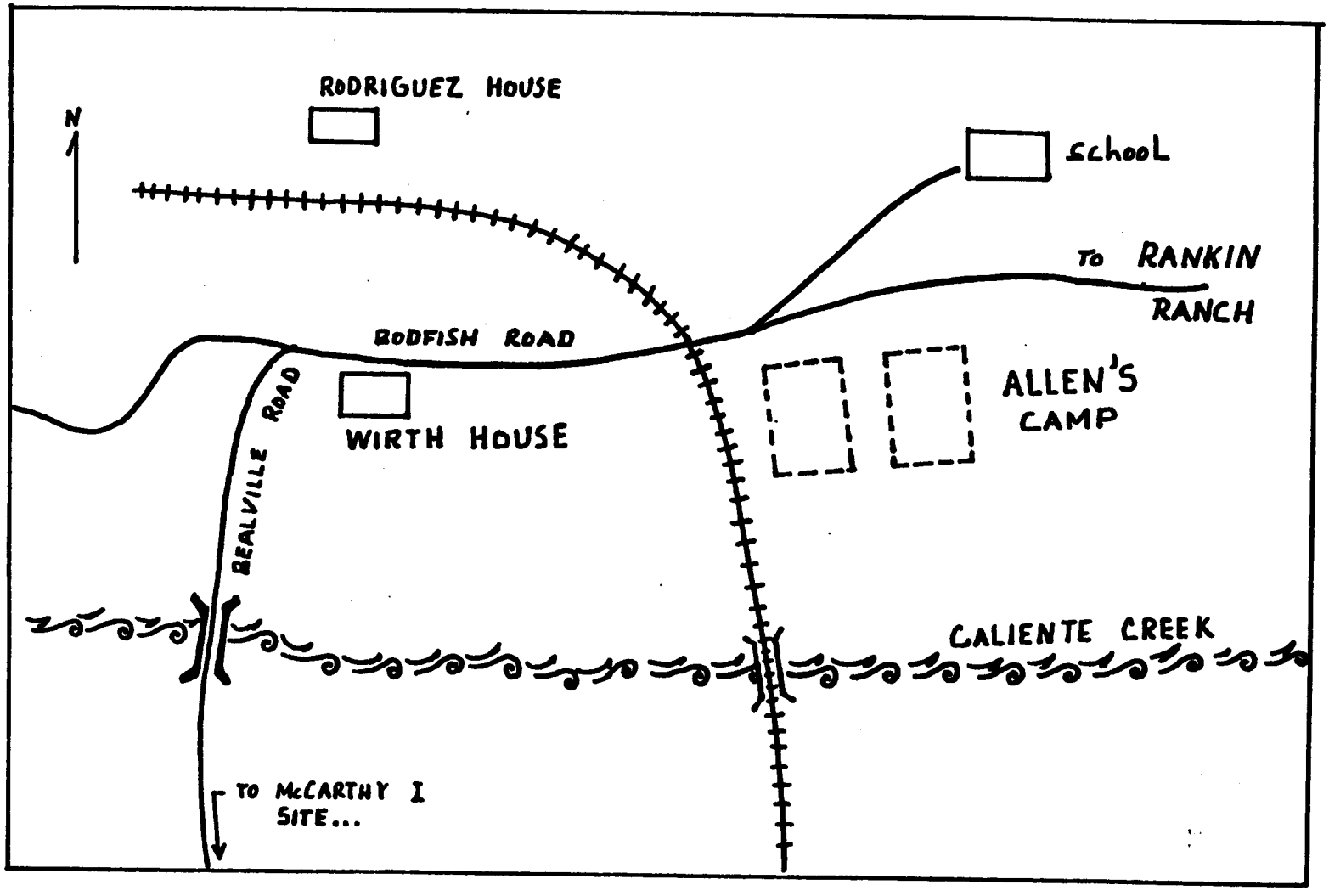
The Ranch consists of 1,000 acres and during Jerry McCarthy's lifetime the land was used as a cattle ranch and farm for the most part. Today the Ranch is used exclusively for cattle raising. It is operated principally by Mike McCarthy, eldest son of Jerry and Phyllis, who resides in nearby Tehachapi.

The Ranch house itself is a painted wood frame structure and is more than one hundred years old. It was originally built by the Southern Pacific Railroad in the late 1800's. Jerry's father was a section foreman for the railroad at that time.

Lining the north side of the driveway leading to the house are fruit and nut trees. Railroad tracks run east to west adjacent to the south side of the house. Nearby is a livestock corral for annual branding of cattle. The view from the front porch of the house extends to Bakersfield, about 25 miles to the west. Dominating the entrance to the house is a stone and masonry chimney. The large fireplace still serves as the principal source of heat during the winter months.

Historically, Caliente served as a railhead with an extensive camp for railroad workers as they laid track up through the Tehachapi Pass. Caliente also served as a supply station for the local miners and settlers. In later years it was used as a camp for the Edison Company and telephone company workmen. Supplies and material were shipped by rail from the east.

In the early days "Caliente owed its existance to the Southern Pacific, . . . a grading camp was established at this point, 27 miles from Bakersfield, where the first problem of mountaineering railroading was encountered in the conquest of the Tehachapi Pass." (Miller 1929:631)



General map of the Caliente area (Not to scale). Based on a sketch of Caliente and Allen's Camp by Mrs. Wirth.

The Southern Pacific railroad station was located at the former site of Allen's camp, about a mile below Caliente and to the north of Caliente Creek. According to Latta, Allen was an old settler who raised burros which were sold to the settlers and miners.

The book Inside Historic Kern states the name change from Allen's Camp to Caliente was made by the Southern Pacific Railroad. And, according to Boyd, the name change was bestowed when the Southern Pacific sold town lots there.

There is some confusion about the actual site of Allen's Camp. Phyllis McCarthy pointed out the remains of a stone and mortar building on lower McCarthy as connected to the camp. This building nearly disappeared as a result of the floods of Spring 1983. Fortunately, members of the Society had done some exploratory work on the building prior to the flood. Most probably this building was constructed by the railroad, but is was not part of the original Allen's Camp.

(We noted during the interviews that there was also confusion about portions of the ranch. Referrences had been made to a "meadow" by the senior McCarthys. We at first assumed this to be the site area. Later, we discovered that the meadow referred to the area surrounding the stone building while the site area was called the "flats".)

In 1875 Caliente was a roaring boom town boasting a population of about 7,000 inhabitants. There was talk at one time of making it the county seat. Phyllis recalls mention of not only a great many Chinese working for the railroad, but Greeks and Mexicans as well. There was no church, but as many as twenty-five saloons carried out a substantial business in the thirsty settlement, fast gaining a lawless reputation.

According to Boyd, "In lawlessness Caliente soon vied with the worst of the rowdy towns of the frontier west." (Inside Historic Kern:1982:220).

At one time Vascar and Chavez, outlaws in the area, roamed and operated here, hoping to emulate the Tiburcio Vasquez gang. In Morgan's book he states that the gang stole horses and saddles from Bakersfield and went to Caliente where they robbed the train depot. In the process this gang also shot up the town. They were stopped by a construction crew from the railroad (Morgan 1914:91). There is a report that Tiburcio Vasquez was in Panama (South of Bakersfield) one night while a posse from Bakersfield was scouring the hills near Caliente for the notorious outlaw (Morgan 1914:52).

Mary Vestal was familiar with the names, Vascar and Chavez, and stated that her grandfather McCarthy was so respected by them that "he was protected by them".

She also relayed the story told by her father of the robber who stole from the stage coach when $1,000,000 in gold was being shipped in gunny sacks. In the wild riding to escape, the sacks tore open and the gold spilled along the trail.

* * *

Jerry II and Phyllis McCarthy first met at a dance in Tehachapi in 1926.

Over the next two years they dated. They were married in 1928. Phyllis was 18, and Jerry was 28. During their lifetime together they had two sons -- Jeremiah Michael McCarthy, III, and Faryal Edward McCarthy; and a daughter, Margaret Mary McCarthy. Margaret Mary now resides on the Ranch with her mother.

Jerry II was born on the Ranch on November 27, 1900. Both of his parents had emigrated from Ireland. His father, Jerry McCarthy, born in County Cork, came to the United States as a young man. After arriving in New York, he worked at building railroads all over the United States. Prior to settling in Caliente he had worked on the railroad at nearby Keene. His marriage to Jerry II's mother was his second, his first wife having died near Visalia. (The old McCarthy Hotel in Delano attests to the family presence in the area).

Jerry's mother, Margaret Mary was born in Dublin, County Mayo, Ireland. She came to the United States as a bond servant. Initially she was bound to a New York doctor for two years of service as pay for her passage. However, she left his service prior to completing the two years. She had left two children in Ireland. When her sister Ann came to the United States, she brought these two children with her. Ann subsequently married a man who was a foreman on the railroad in Filmore. Margaret Mary met Jerry Michael McCarthy I and they were married in 1895.

Phyllis was born Phyllis Maud Chappell on October 31, 1910. When asked where she was born, she answered "Tehachapi" (14 miles southeast of Caliente), then wryly quipped "I didn't get very far, did I?"

Both her parents were native Californians. Her father, John Faryal Chappell, was born in Azusa and his family later moved to Tehachapi. Her mother, Dora Catharine (Purcell) Chappell was born in Bakersfield, and Dora's mother was born in Glennville, California. At the time of Phyllis's birth her father was thirty years old and he was employed as a teamster. It is interesting to note that the great-grandchildren of Jerry and Phyllis are sixth generation native Californians.

Phyllis recalls that when she first came to the Ranch there were still Indians in the area. They resided on the Paiute Mountain Indian Reservation 27 miles away. A Paiute Indian woman named Sally made a water basket and gave it to Phyllis during the 1930's.

"The Plateau Shoshoneans, often called 'Piutes' or 'Tehachapis' (Indian word meaning "Land of Acorns"), are technically known as Kawaiisu." (Miller 1929:51). The Tubatulabal, also of the Shoshonean group, lived near the Kawaiisu.

Mary Vestal recalled that her father had said the Indians didn't actually live at the site on the ranch, but in the Fall many came from different tribes to gather acorns all through the area. The acorns were then processed on the bedrock mortars.

> "...*Acorns comprized a very large part of the plant food obtained, followed by pinions and a variety of small seeds.*" (Porter 1981:71).

"The extra leisure time during the winter months was also used to go on trading trips. Steban Miranda told of making a trip to the Chumash villages near Ventura... The route they took lay through Walker's Basin to Caliente..."
(Porter 1981:92).

Mary Vestal McCarthy related that there were once petroglyphs and pictographs on the McCarthy Ranch. When she and her brothers were children, they were occasionally allowed to go to this area on picnics. Both Mary and Mike McCarthy recall that in addition to the rock art, there was also a large concentration of bedrock mortars nearby. The rock art was located between tunnels three and four of the Southern Pacific line. (When the Southern Pacific constructed the railroad through the Tehachapi Pass, a string of eight tunnels were included in the plan. Tunnels three and four lie immediately southeast of the ranch home, with tunnel three visible a short distance from the rear of the ranch house.)

During the 1953 earthquake, a huge mass of earth near tunnels three and four shifted and covered the entrance to tunnel three, railroad crews and equipment converged on the area to clear out the tunnel entrance and the immediate area surrounding the slide. In the process of reopening the tunnel, the rock art and mortars were completely covered over with tons of earth.

In researching the site, members of the Society contacted Dr. John Cawley of the American Rock Art Research Association. Dr. Cawley acknowledged the presence of rock art at the McCarthy Ranch. As far as he knows however, the rock art has never been recorded.

Mary Vestal recalls with obvious fond memories her childhood on the Ranch. She remembers the two work horses her father owned named "Tilly" and "Bubbles". In the Summer she and her brothers took shovels some distance from the house and slid down the dry grasses on the shovels - an activity for which they would have been punished had their parents known. The area has always been known for its extreme fire hazard during the dry months.

Mary recalls finding old Chinese coins on the surface of a hillock in Caliente. The area excavated by the Archaeological Society was known to the family as "Bee Hive Hill", so named after an old oak tree where Jerry and one of the boys would go to gather honey. The railroad bridge underpass on entering the town was known to the community as "Black Bridge". Mary remembers her teacher at the Caliente School telling the class that Kit Carson's youngest daughter was a resident of Havila when she died. And, Mary's great grandfather McCarthy hauled the first corpse in the area by wagon from Tehachapi to Mojave.

She stated also that in earlier years there was a great deal more water in the creek beds than there is today, and that the wildflowers were not only more abundant, but their stems were longer. Lupins and poppys can still be seen, but the Mariposa Lilly, in years past very prevalent, is now seldom found.

In addition to the interviews with the McCarthys, discussions with other long-time residents of Caliente

revealed some interesting information. Gloria Wirth came to Caliente in 1928 with her husband when she was 18 years of age. At this point, they opened the "Caliente Hotel." It is now the private residence of Gloria Wirth. Her father-in-law, Henry Wirth, Sr., leased and operated the old Onyx Store in Onyx. She remembers cooking for as many as 50 people every day at the hotel when she was 19 years old. Cost of the meals at the hotel was $1.00 a day and around $1.50 a day for a room. The menu varied little. Breakfast consisted of venison steak, hot biscuits, coffee, fried potatoes and gravy. Lunch was *al fresco*. The men took their lunch with them to work. Dinner consisted of meat, potatoes, and vegetables.

During the flooding of March, 1983, Gloria Wirth came very near to losing her home. The Tehachapi and Caliente Creeks swelled with recent rains, and came rushing through Caliente and through her home. At 7:00 a.m. on the morning of March 1st, Gloria decided it was time to leave. Water, mud, and debris flowed into her house through the back door. She left and spent the next eight months living with her neighbor Mrs. Stella Allen, while major repairs were made to her house. After flooding subsided her house was left with 4½ feet of mud inside. Almost all of her furnishings had washed down Caliente Creek. An avid collector of antiques, she lost "fifty four years of my life down that creek". She had been writing the story of her life and some of the papers and all of her old photographs were lost to the flood. During the cleaning and mud removal process it took fifty bulldozers working for three weeks to clear the road (still in disrepair as of this writing) and dredge the creek. Gloria Wirth, alone, spent $5,000 just to have the mud inside her home hand-shoveled out by a crew of seven men. The damage to her home and the attendant loss of possessions was both a tragic financial and deep personal loss. The damage inflicted by the raging waters of the two creeks is a prime example of the potentially powerful forces which exist in nature.

POSTSCRIPT

The membership of the Kern County Archaeological Society was saddened to learn of the untimely death of Mrs. Phyllis McCarthy on November 29 of 1983. In her memory, and that of her husband Jerry McCarthy, we humbly dedicate this journal.

* * *

McCARTHY I INTERIM REPORT

Ruth M. Riles

INTRODUCTION

In 1982, members of KCAS resumed investigations of the McCarthy I site. The site was originally reported by Manuel Rodriguez, a resident of Caliente and a student of Mr. Robert Schiffman at Bakersfield College. Schiffman and his classes carried out research at the site in 1975. At that time 10 pits were sunk. The site was reopened in April of 1978 by members of Dr. Jane Granskog's Senior Seminar at Cal State Bakersfield, and the KCAS. Research has included the collection of ethnohistorical information from local residents.

The McCarthy site is located southeast of the present village of Caliente and consists of several hundred yards of midden and associated bedrock mortars.

The lithic material preferred by the McCarthy I people was silicate. Obsidian was relatively rare and is represented by bird-points.

One of the most intriguing features of the McCarthy I site are the rock concentrations, found throughout the site and usually in association with cultural material.

There are no historic records of a settlement at the McCarthy I location, although ethnohistorical information suggests that the area was used in the fall for the processing of acorns. Archaeological evidence indicates that the site was abandoned as a settlement area sometime in the late prehistoric era.

Historically the area was claimed by the Kawaiisu, an offshoot of the Chemihuevi tribe. Materials recovered at McCarthy I support ethnographic accounts of Kawaiisu cultural ties with the Mojave desert.

The site is of historic importance, as the crews which built the railroads in 1875, including Chinese and Greek workers, were camped nearby. The site itself may have been disturbed by these crews.

Our recent efforts included research into the actual location of the Chinese incampment and of Allen's Camp, the supply station for miners which predated Caliente.

GEOLOGY AND ENVIRONMENT

McCarthy I lies on the western flank of the Sierra Nevada Range, a tilted fault block about 400 miles long and averaging 50 to 75 miles in width. The western flank is characterized by long, riverine canyons, many of which have been modified by the erosive actions of glaciers, and a gradual downslope. Short steep canyons, many of them also showing the effects of glaciation, characterize the steep eastern front of the range which is known as the Sierra Nevada fault scarp. The rocks of the Sierra Range are nearly all igneous (plutonic and volcanic) and metasedimentary in composition. In origin, the rocks are Paleozoic, Mesozoic and Cenozoic (Miller 1957:21).

To the west of the Sierra Nevada range lies the San Joaquin Valley.

To the east, and accessible to the McCarthy site from Walker and Tehachapi passes, is the Great Mojave Depression.

The biotic range of the McCarthy site is Upper Sonoran (Elsasser 1960). Principal vegetation zone is chapparal. The climate is: steppe and mesothermal (Russell 1926).

"Ethnographic reports indicate a wide range of plant and animal foods utilized in the Sierra Nevada province"(Elsasser 1960:6). There were five large mammalian species hunted by the historic Indians of the Sierras. They were the California mule deer, the mountain sheep, the pronghorn antelope, the grizzly bear and the black bear (4). Manipulation of the environment by California Indians included burning off of grass areas to improve seed yields.

GEOMORPHOLOGY OF THE SITE

The McCarthy I site occupies a saddleback between two creeks, Tehachapi Creek and Clear Creek. Tehachapi Creek, on the east, is fed by springs and contains water year around in most years.

Immediately south of the site the land rises sharply to the 2000 foot elevation. This rise posed interpretive problems. There was a concentration of lithic materials at the foot of this incline. In this area, natural processes such as wind, gravity, and erosion are assisted in their action by earth movement. Tremors have caused the site to be drastically altered in the historic period. No longer visible, for instance, are pictographs and rock mortars at the top of this incline. These features were effaced by crews clearing the rubble from the 1950 earthquakes which shook Tehachapi and surrounding vicinities. Earthquake activity may have contributed to the displacement of the lithic materials recovered at McCarthy I.

Marking the northern extremes of the meadow on which the site is located, is a second hill or knoll. This knoll rises some 60 feet higher than the level of the site and ends in a sheer bluff overlooking the confluence of the two creeks. The merged streams eventually join Caliente Creek some three miles below the McCarthy I site.

There is a second midden area, not yet excavated, which lies beyond Clear Creek on the west. When plowed, this area yields portable mortars and pestles. The site itself has not been plowed by the present owners. But, Schiffman gathered information which suggested that the site had been cultivated by the railroad crews in the 1800's. They are supposed to have cleared the meadow for a garden.

At present, the site is used for a cattle range. The present owners have occupied the area for three generations. Their house is located at the top of the rise to the south of the site.

HISTORY OF THE AREA

Historically, the region of the McCarthy Ranch was occupied by the Kawaiisu, related linguistically to the Western Mono and the Tubatulabel (Heizer & Whipple 1951). Estimates vary, but glottochronology suggests that the Kawaiisu language separated from the Ute-Chemihuevi stock 500 to 1000 years ago.

At about 1000 years ago, drought conditions prevailed in the desert areas of the Southwest (Hunt 1975). It may be that the Kawaiisu were encouraged by climate to spend more time in the lower foothills, thus abetting

linguistic divergence.

At the time of historic contact, the Kawaiisu village was located on the South Fork of Caliente Creek, approximately three miles north of the site. The site of the village is indicated by bedrock mortars overlooking Caliente Creek near a white bridge.

Ethnographic material concerning the Kawaiisu is limited, but, Kroeber states that they held Tehachapi Pass, Walker Basin and probably some southern confluents of the Kern River, and the eastward drier slopes of the Sierra Range (Kroeber 1925: 602). The extent of the territory on the Mojave side is uncertain. It appears to extend to the southern spurs of the Panamints (602). The cultural affinities of the Kawaiisu, thus, lie east and south of the Sierra Range (603).

The cultural materials found at McCarthy support the ethnographic reports of eastern affinities. The most plentiful materials collected are silicates. Obsidian comprises less than 10% of the material found and for the most part was represented by bird points and minute flakes. No obsidian cores or platforms were recovered indicating that the locals were supplied with preformed blanks. In comparison, large and plentiful chunks of silicaceous material are to be found. The bulk of the tools recovered are of jasper, chert and chalcedonized materials. These silicates are obtained east of the Sierra Range in the desert region. Major sources utilized by prehistoric peoples are to be found in San Bernardino County north of Pinto Basin and south of Death Valley (Heizer and Treganza 1972: 314). Brown (1955) lists other sources near Randsburg in the Mojave. The Kawaiisu were known to winter in the desert and were thought to have controled the areas where the silicates originated (Kroeber 1925: 602).

Obsidian was to be found in the Mono Lake region and near San Bernardino. It was traded by the Owen's Valley Paiute to the soutehrn Sierra tribes and probably to the southern valley Yokuts as well (Sample 1950:18). Refraction Indexes of obsidian taken from the site matches that taken of material from San Bernardino.

Further indications of trade east to west were objects made of steatite and shell. Both materials are found at the site on McCarthy Ranch. These materials probably originated on the coast.

Coastal materials were traded to the interior as far away as the Southwest region (Martin 1963:51). This contact is apparently of great antiquity and was well established by 200 A.D. (51). That the coast Indians were in contact with the Colorado River trives is documented by historic sources. The Spanish mission, for instance, heard reports of the movements of the Spanish soldiers miles to the interior through Indian informants. In 1776, Garces met two groups of Mojave Indians returning from the coast with shells and was told by them that they could cross the desert in four days (Sample 1950:5). Anza, in 1774, was told that the journey from Yuman country to the Hopi took twelve days (5).

Indications of trade with the Indians in the northeast were found by the Schiffman crews. They reported finding pottery sherds in some units. This was tentatively identified as Owen's Valley Brown

Ware (Elsasser 1960:31). Owen's Valley ware is relatively crude, unpainted, and unslipped. It is a coiled, scraped type of pottery that has been fired in an oxidizing atmosphere (31).

On the whole, the material found at McCarthy supports the east to west pattern of trade as reported ethnographically. The Tubatulabel, further up the Kern Canyon from McCarthy, were typical of the movement in the area. The Tubatulabel were known to travel as far east as Randsburg. They passed through the Tehachapi area on trading expeditions (Sample 1950:4).

Elsasser says of the movements, "The universal practice of all Sierran ethnographic groups of moving with the seasons, usually east and west, but in a specific territory, must indicate an optimum method of survival in the given environment, and one of long standing (Elsasser 1960:8)."

The first recorded contact of Indian with European in the area of Caliente came in 1772 when Cpt. Fages, chasing deserters, came through the Tejon Pass and into the valley.

During the Spanish occupation the McCarthy ranch was part of the Rancho El Tejon, conceded to Jose Antonio Aguirre and Ignacio del Valle in 1843.

There were sporadic visits by Americans and others throughout the Spanish era. One visitor, Zenas Leonard, visited the Walker Pass area in 1833 and in his notes he mentions that the Indians in parts of the valley and in Walker Basin, northeast of the site, had agriculture (Elsasser 1960:7). Elsasser speculates that the renegades from the Purissima Mission may have brought the knowledge of agriculture with them.

In 1844, members of the Fremont expedition made their way into the Caliente area. They attacked an Indian village in the vacinity of Walker Pass and caused many casualties.

In the 1850s discovery of gold caused an encroachment of whites into Indian territory. Mining camps and supply camps dotted the mountains which comprise the Nevada Range. Gold was taken from Havilah and upper Caliente Creek.

In order to supply the miners a sheepherder and packer named Allen established his headquarters on the floodplains north of Caliente Creek and to the east of present day Caliente (Engle 1969: 10).

Allen supplied goods to mines and camps along the Kern River and Clear Creek near Havilah (Engle 1969:12). As the railroad neared Allen's camp, a new town sprang up, called Caliente. By March of 1875, there were two restaurants, four saloons and a butcher shop in town. By April of 1875, Caliente had become a full-fledged rail head town.

Approximately twenty-five hundred Chinese workers and their overseers camped on a meadow east of town. The life of the town was a short duration and by May of 1876, the work crews had moved their tents further up the track and a new rail head was established at Wells Station 12 miles east of Caliente. Most of the buildings erected in Caliente were dismantled and moved to the new location (Engle 1969:12).

"In 1950, workmen digging the

foundations of the present school, unearthed a few bones and oriental trinkets. The school, standing on a plateau above the town, marks the site of Caliente's original Chinese cementery (Engle 1969:12)."

According to a local resident, Mrs. Gloria Wirth, the bodies buried in the Chinese cemetery were those of 1500 Chinese workers killed in a tunnel cave-in on the railroad line above Caliente. The remains of the workers were later exhumed and shipped back to China.

The Chinese were of interest to us as they were reportedly camped on lower McCarthy. We were informed by Mr. McCarthy and Mr. Shiffman, that the Chinese workers had cleared the meadow where the site is located, of boulders in preparation of gardening.

The hill just north of the site is lined on the eastern edges with a jumble of boulders, said to be the result of clearing the meadow. These rocks merge with a more indistinct line of boulders marking the eastern edge of the site. These two features were attributed to the Chinese by informants.

The second feature, that of the line of boulders, seems to be of natural origin. This ridge is probably the result of hydrological action, as just east of the line lies Tehachapi Creek channel. "Low indistinct ridges, called natural levees, border most river channels on floodplains. They are highest next to the stream bank, and slope outward away from the stream toward the edge of the floodplain (Gilluly 1959:207)."

Also pointing to different forces at work in the formation of the rock features, is the disposition of the rocks. The boulders along the edge of the creek are contained within a matrix of soil. The boulders at the bottom of the hill are not.

There was some doubt about the actual location of the Chinese tent city. Mrs. Gloria Wirth suggested that the confusion over the location derived from the fact that a second work crew camped out on McCarthy Ranch in the late 1800s. At that time, according to her, an Edison crew laid a pipeline from the spring on Tehachapi Creek to the town of Caliente.

We have not yet solved the problem of the rock features on the eastern and northern edges of the site; whether or not they were placed in position by a human agency. We have tentatively identified the location of the overseer's headquarters. The remains of a building, said to be the overseer's building, was pointed out to us by the McCarthy family. The building remains are on lower McCarthy next to Tehachapi Creek.

The building is approximately 10 by 15 feet in size and is constructed of undressed field stones and mortar. Portions of the walls remain standing. The roof has long since been destroyed, the remains of it are to be found in the materials covering the interior spaces. Rocks from the walls have fallen in upon the debris littering the interior. This fill is approximately 50 cms deep.

The exterior of the house is obscured at the lower levels by at least 50 cms of relatively sterile hardpan and sand, the result of alluvial action. (The building stands on a floodplain.)

An exploratory bore through the

interior fill revealed historic trash: bottle sherds, square nails, bits of metal and an occasional animal bone. At the bottom of the fill we uncovered a dressed stone floor grouted with mortar. For a temporary building someone went to a bit of trouble in constructing the place.

There was one unusual artifact uncovered by the sample bore in the overseer's residence. We encountered the remains of a metal object, the impression of which could be clearly seen in the wall of the cut. The object had been some kind of utensil. It was shaped somewhat like an old fashioned teapot with a narrow base and flairing straight sides. The spout extended several cm above the flat top. There seemed to be no handle, but perhaps the handle had been fashioned of wire. A thin wire handle would not have been preserved as well as the solid body of the pot. The object was approximately 35 cms wide at the top and about 25 cms tall. It had originally been situated on a rock hearth which was positioned on the surface of the rock floor. We concluded that the object at least dates to the destruction of the building. Hopefully, research will reveal the origin of the object.

Two bottle fragments recovered in the house may also be of use in dating the premises. One fragment was dark brown and contained the following legend embossed in the bottom:

A second fragment of a clear, uncolored glass bottle contained the following information on the front:

The square nails and the bottle fragments suggest that the building may date to the last century.

The age of the site is another problem we have sought to assess. The Schiffman crew has obtained a C_{14} date of 1650 from a hearth near the bedrock mortars in the center of the site. Certain of the artifacts also seem to indicate that the site is late prehistoric.

At the site we find: bedrock mortars, small triangular obsidian points, steatite beads (old style drilling), olivella beads (cupped), steatite arrow straighteners, pottery (?), and chert and basalt points and tools.

Some of these artifacts are time markers in the Sierra Range (Elsasser 1960). The dates of their appearances are as follows:

Bedrock mortars - 500 A.D.
Steatite arrow strainghteners - 1700 A.D.
Steatite disc beads (old style drilling) - 1200 A.D.
Owen's Valley Brown ware - (found by the Shiffman crew) 1300 A.D.
Desert side notches - 1300 A.D.

The presence of these objects at McCarthy 1 points to a late prehistoric occupation of the site.

The predominence of silicates, however, augers an earlier date. In other sites the sequence of preferred materials is silicate to obsidian, with obsidian being the more recent acquisition.

At McCarthy 1, silicate and basalt points are found from the surface down to 90 cms. Obsidian points were recovered from the surface to a depth of 60 cms. Only 1 obsidian point was recovered on the surface, whereas 4 chert points came from the surface.

The distribution on the surface is a problem. It is the reverse of what might be expected. There is evidence to the effect that the site is disturbed. If we take this into consideration and assess the material that is left the following pattern emerges. Silicate points appear at the lowest levels. They decrease in number as we approach the surface. The obsidian points do not appear in the lowest level. They increase in number as we approach the surface. With the exception of the surface, the obsidian points outnumber the chert in the upper levels of the site. This distribution is about what you would expect if there were a shift in preference of material for points.

Unfortunately, our sample is not large and other factors could cause a change in materials. Large points are associated with large game. The switch to the desert triangle, or bird-point may mean a change in types of game hunted. The size of the points may also be a factor in discarding. The chert point is larger and might be easier to spot in the case of accidental discarding. Perhaps the distribution of materials found reflects the factor of size.

The distribution of the material at McCarthy 1 may also be due to availability. If the Kawaiisu controlled the source of the silicates, as is reported ethnographically, then it makes good economic sense to have more silicate than obsidian material showing up in the units.

The site covers several hundred yards between Clear and Tehachapi Creeks. There is also a second occupation area to the west of the site. If this whole area were utilized in one time period, this would represent a very large settlement.

Two factors have been used in assessing the size of the prehistoric population; the depth of the midden and the number and disposition of the bedrock mortar holes.

A site with more than 20 mortar holes is considered to be a large village (Bennyhoff 1953:31). If the midden is deeper than 6 inches, this can also indicate a large village (Elsasser 1960:20).

McCarthy 1 midden is in excess of 60 cm. There are many more than 20 mortar holes. This argues for a very large settlement.

Of course, we have to take into account the time frame during which the mortar holes were formed. It could be that a small group over a long time could drill just as many holes as a large group in a short time.

At McCarthy 1 the mortar holes fall into two groupings (Vaters 1978). One group averages 20 to 29 cms in depth. The second group averages 3 to 4 cms in depth. This distribution might indicate that there were

modification such as would be caused by human activity. This added to the fact that rock concentrations are reported elsewhere, has led us to conclude that the bulk of the material must have something to do with the human occupations of the site.

Having decided this, the rocks may be of importance in understanding the temporal aspects of the site. The rocks, coupled with the clustering of the mortar hole depths, may support the hypothesis that two waves of occupations are represented at the McCarthy Site.

Supporting the multiple occupation hypothesis is the disposition of the rocks; they are not evenly dispersed throughout the levels. The rocks, modified and unmodified combined, begin in the first or second levels, depending on the area of the site, and increase in volume with the depth, peaking at about -50 cms. Rocks become rare from 60 to 75 cms, then at the -75 cm level there is another scattering of lithic materials. The second layer is not so dense or numerous as the -50 cm cluster. There seems to be a least two peaks in the rock volume.

If there are two layers, or peaks in the volume of lithic materials, this might indicate that there were two corresponding peaks in population size at McCarthv 1. This explanation would agree with the clustering of the depths of the mortar holes.

It does not appear, however, as if two different cultures occupied McCarthy 1. The lithic remains, regardless of material, show a similarity of form and style. Most of the points, for instance, fall into the triangular, basal notched or concave base category. (There were a few anomalous desert side-notched obsidian points.) The similarity of style, plus the site-wide appearance of desert derived lithic materials points to the use of the site by a single people.

Ethnographic sources indicate that the Kawaiisu wintered in the desert (Kroeber 1925:602). If so, we might expect the McCarthy site to be a summer camp. The data lends itself to this interpretation, but not exclusively so.

Certain features agree with the ethnographic information, that the site was used in summer and fall. There are, for instance, bedrock mortars, indicating that the processing of acorns occurred at McCarthy 1. This is a fall activity. Manos found at the site may indicate a reliance on seed which matures in late spring or early summer.

There was more going on at McCarthy than just food processing, however. We found tools which could have been used in wood working. Awls and needles were also found, these might have served in the processing of leather goods. We found a bead drilling platform, indicating that the manufacture of beads was part of the activities at McCarthy 1. Two steatite bowls, probably used in ceremonies, were found at the site. The various materials and tools point in the direction of a permanent village, rather than a temporary food processing camp.

Of possible bearing on the question of seasonality of the site is the physical location, it lies on a ridge which is several feet above the surrounding meadows. It is above any possible high water. Perhaps the residents of McCarthy 1 took

flooding into account when they situated the camp. Flooding occurs in the late winter and early spring.

The elevation of the site also seems to suggest a winter occupation. The site is approximately 1400 feet above sea level. The 4000 foot elevation is assumed to be the dividing line between summer and winter sites in the Sierra Range (Elsasser 1960:16). McCarthy 1 is well under this line. But, we are dealing with a people who hold desert and not high mountain territory. This makes a difference, perhaps, in evaluating their movements.

Another thing which suggests that McCarthy 1 was occupied in the winter is the pictographs. Rock art is most often associated with winter sites in the Sierra Ranges (Elsasser 1960:21).

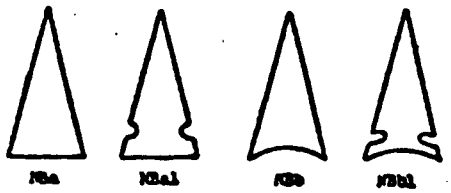
The evidence does not exclude the possibility of the site being occupied in the winter, although the historic information indicates otherwise. Undoubtedly, the White encroachment into the Caliente area altered the movements of the indigenous peoples. Perhaps there was a period in prehistoric times when McCarthy 1 was occupied year around. It is entirely possible that there has been a change in behavior, and that McCarthy 1 reflects this change.

Ethnographically the Kawaiisu were located approximately three miles downhill from the McCarthy site on a major stream, the Caliente Creek. There is evidence of this settlement, which was extensive, from the bridge to the area of Allen's Camp. There are questions which need to be answered about the choice of village site. Was the area along the major stream the first to be settled? If so, McCarthy 1 might well represent a fission off of a main village. If this is so then the aboriginal population in the area must have been quite large. Could the mission era have contributed to a decrease in the population of the area? There is some evidence that Indians from the valley were employed at the Purissima Mission (Elsasser 1960: 7). Fremont, on his second expedition, encountered an Hispanicised Tehachapi Indian just south of the Tehachapi Pass. This man reported that he was on his way back to San Fernando Mission (Egan 19:234). Was McCarthy 1 abandoned because of a population decrease during the mission era? Or, could McCarthy 1 be an earlier site? Did the Kawaiisu, upon entering the foothills, first inhabit higher land, that which is more easily defensible, and only later drift down into the lower river valleys? McCarthy 1 is a potentially valuable site for answering some of these questions.

Analysis of the McCarthy 1 material is only in the interim stages. The research so far indicates that the site was occupied by one people with cultural ties in the desert. The site may have been a permanent village in the prehistoric era. It apparently ceased to be anything but a food processing area in the Mission era. The lower limits of occupation in the area are difficult to determine, but the evidence so far does not exclude occupation of the site by about 1200 A.D., as we have an absence of obsidian in the lowest levels (75-90 cm) or units thus far excavated.

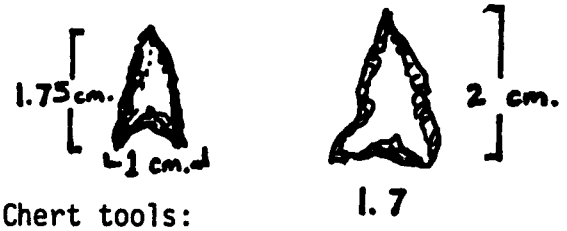
MATERIAL CULTURE OF McCARTHY 1

Projectile points are all of the type NBb, NBb1, and NBa1 (Uecker 1978:7).
N, Not stemmed
B, Triangular
a, Straight base
1 side notched
b, Concave base
1 side notched
(Wadel 1940:61).



Obsidian points:

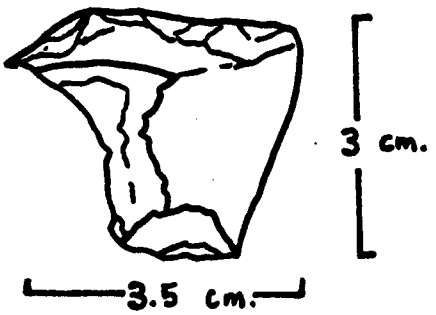
The obsidian points are small, bifacially worked triangles. Most have a basal notch. Some are desert side-notches.



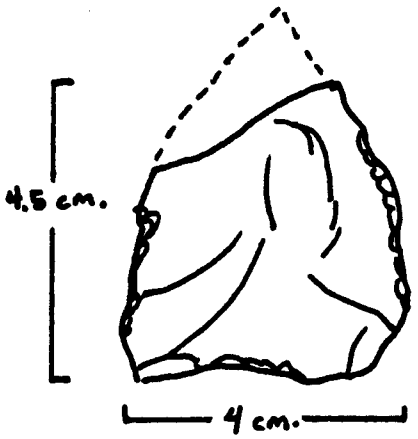
Chert tools:

The scrapers (?) sometimes resemble fishtails. The following is a diagram of one. Modification includes thinning of the base.

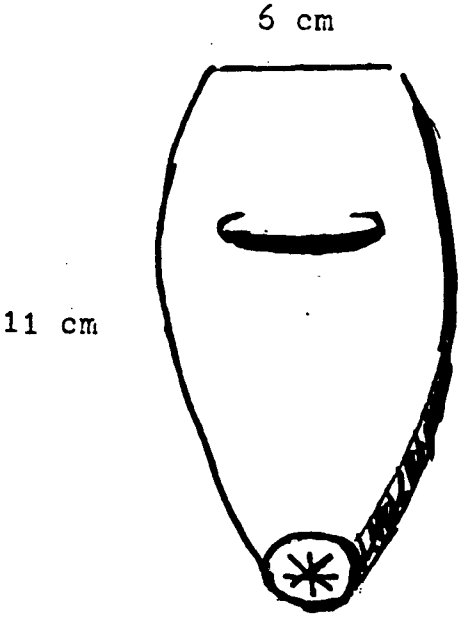
This area thinned to form cutting edge.



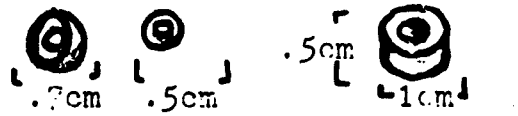
Some objects are very crude in manufacture, with little apparent retouching. The following illustration is of a blade (?), possibly even a point. It is of a tan chert with plum and pink inclusions. It is unifacially worked.



A steatite arrow straightener was collected on the surface by a resident of Caliente. The arrow straightener is plain except for a design etched on one end.



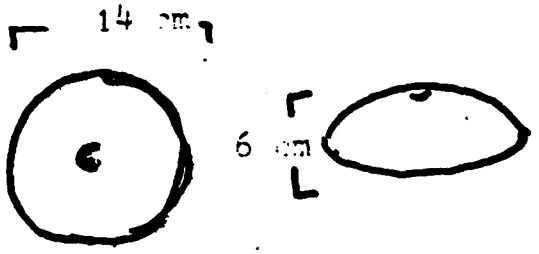
Beads found at McCarthy are olivella cupped and steatite disc. We also found some thin flakes of Haliotis nacreous but not enough was present to identify the original shape and size. One bead seems to be of a white stone (?) material, as yet unidentified.



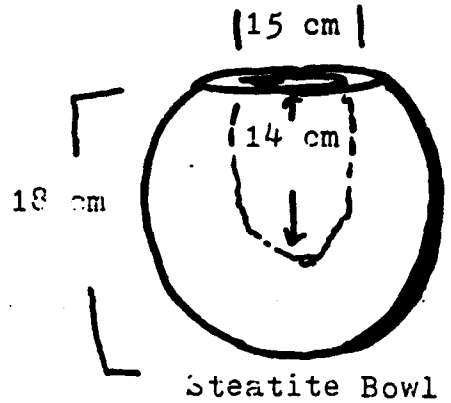
Cupped olivella

Steatite

We recovered a drilling platform (?(of steatite. The object is dimpled on both sides.

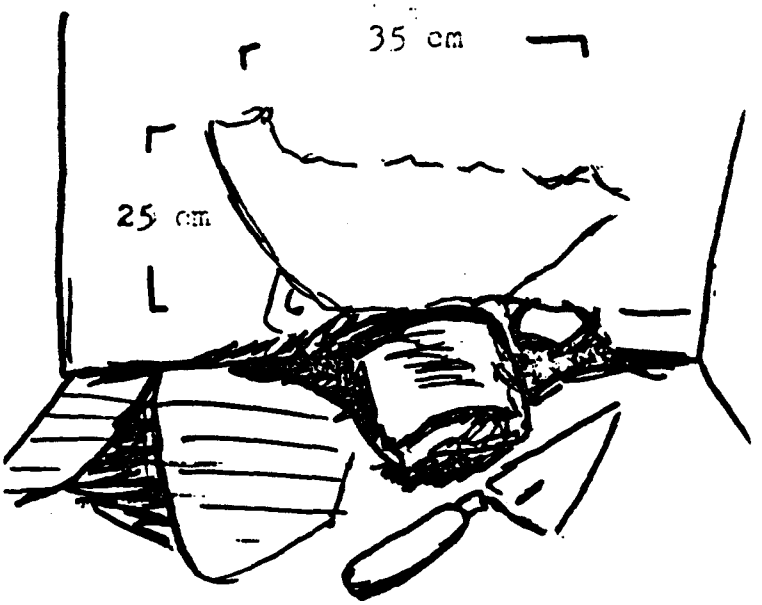


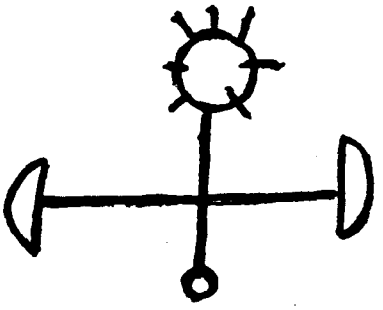
The portable mortars found at and near the site are of two materials, steatite and granite. Two steatite bowls have been discovered, one of which is in the lab at Bakersfield College, the second is in a private collection. McCarthy 1 residents preferred globular portable mortars. One other object found in a unit at the site seems to be the beginning of a chumash style, straight-sided mortar. The object is broken and only one section was found.



Steatite Bowl

In the sample pit at the overseer's building on lower McCarthy, we discovered an impression of an object. The object is shaped like a teapot but it was of metal.





SMALL MAN--BIG SHADOW

by

Rick McLun

In 1852 the Kern River was in Mariposa County which extended south to touch fingers with Los Angeles County. The youthful legislature at the state capitol of the time, Benicia, fearing federal give away, decided to lop 24,000 square miles of Mariposa County and call it Tulare County...fast! Even before the new cuspidors filled. It named Indian lover/fighter Major James D. Savage to be election commissioner for the formation of the new county.

Apparently they did not check--or just didn't care--that Savage could not read or write. (This writer has a copy of a bill of sale signed by James Savage. He broke the quill pen on both the J and the S and a scribe filled in the rest.)

But the legislature was too skittish to worry about little details. They needed counties being populated by white settlers--even if only on paper. So what if Savage was short on some things like height and weight and literacy...he had a high profile with both whites and Indians. He was something over five feet tall and wouldn't hit 140 pounds if he came out of the stream with his buckskins sopping wet and ten pounds of gold nuggets in his pockets. Only the foolhardy, however, failed to be wary of this little man with long blond curls and eyes of blue... the blue was steel--not cornflower. They needed a doer and Savage was certainly that.

Both Savage's disposition and background assured that his California activities would be a noticeable thread through the fast-woven fabric of the period. As a youth in Illinois Savage was aggressively athletic when competing with his white peers in Bureau County, with the Sac and Fox Indians when he lived with them, or at rendezvous with mountain men when he was trapping. He came west just in time to join the California Battalion in The 1846 war with Mexico. One company was made up mainly of Indians from the San Joaquin Valley and Savage made friends with them learning their dialects and folkways.

Records show that after his discharge in Los Angeles, Savage went north to work as drover for John Sutter, helping to build the millrace on the American River.

Early in 1848 John Marshall identified gold in the same millrace and it became a gold race. Savage and three companions headed south and made rich strikes near Jamestown and Sonora. Most finds consisted of placer gold which settled out of the swift water and was found in crevices and pockets. Unfortunately this was also the oak belt where the Miwok Indians lived because acorns were their major staple food.

Savage pyramided his heavy gold poke by buying trade goods, teaching his Indian followers mining, then

EDITOR'S NOTE: Mr. McLun is a professional writer and historian. He has written factual and fictional books, motion picture scripts and short stories. (His first short story was published in a 1946 issue of pulp magazine Sky Fighter. In the same issue was a short by Louis L'Amour.) McLun has also served as associate producer on over 900 T.V. shows. He is currently at work on an historical novel centering around the character James Savage.

selling the trade stuff to them for the gold they brought in--he just put on enough gold to balance the scale. To ensure complete Indian cooperation he kept it all in the family by marrying the princess of each of the important tribes in the area.

The gold poured into Savage's coffers like corn into a silo but the other miners' greed and the red man's need required harvesting of the same area and the conflict became a conflagration. Bullets and arrows flew and men died at an increasing rate until an alarmed governor agreed to the formation of the Mariposa Battalion. The three companies of men elected Major James Savage as commander. On one early campaign he personally led the company chasing Chief Tenaya and his people and as a result Savage was credited with the discovery of the Yosemite Valley. The few skirmishes developed into a pattern: as the soldiers approached a rancheria, or village, the Indians fled; the soldiers burned the acorn graneries and other foodstuffs and left; the Indians returned to hunger.

Washington entered the scene, sending three nice, naive, freshly appointed Indian Agents west to evaluate and report on the problem: Wozencraft, Barbour, and McKee. They had still learned little about California geography, the California Indians, or the problem when a communication informed them that... zap, you're no longer agents, you're commissioners...go out and make the Indians happy and get them to sign treaties. As ordered, the good commissioners lured the red men in to treat with them with promises of food, clothing, American flags, and tools... even though the Indians didn't know which to eat, to wear, to wave, or dig with.

The commissioners went even farther than their promises, they gave the signers land for their X's. There were eight million acres of California land, much of it then being mined, as well as potential farmland for something less than a hundred thousand Indians.

When it became know by the public that this land would not be available for settling and the legislature understood that it would not be on the supporting tax rolls, apoplexy ensued. The words, orders, and threats sent to California's senators in Washington were so vitriolic that when the treaties came before the U.S. Senate for ratification on July 8th, 1852 they were not only reject but put under a ban of secrecy which was not lifted until 1905.

Even before word of the failed passage was received in California, it was decided in Benicia that Tulare County would be rushed into existance to give some credence to the idea that there really were settlers there. Truth be known, there were not nearly enough. Both would-be office holders and voters had to be imported for the election.

When the votes were counted the top office holder was the county judge, Walter Harvey. His first claim to fame was that he had gone to West Point for a couple of months before he was thrown out. On the strength of that fame, he had, a few days before election, led a group of strongly armed men to the massacre of many men, women, and children in their rancheria on the Kings River. Harvey's reasoning was, "How dare those red devils squat for centuries on land that was the white man's by right of Manifest Destiny."

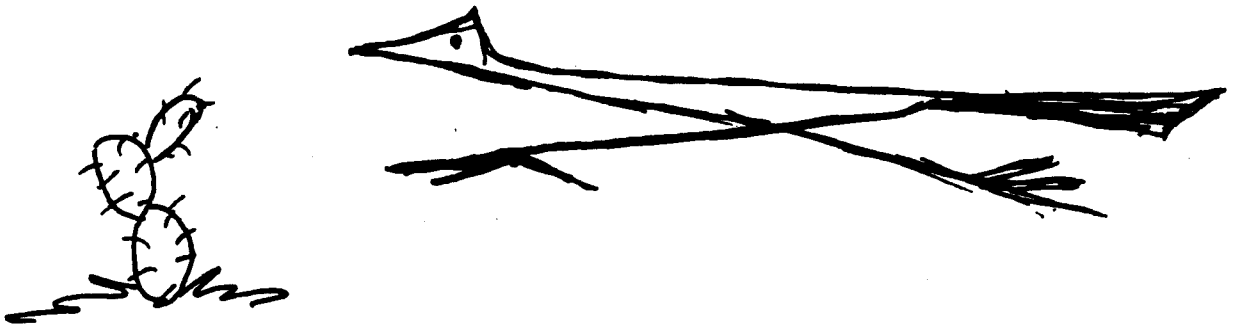
Savage was furious. Chief Watoka's people were peaceful...and they were good customers of his trading store on the Fresno. He had letters written and dispatched requesting that a squad of dragoons be sent to pick up Harvey and hold him for trial.

A few days after the election the ex voting commissioner and the newly elected judge met at Campbell and Pool's shack/store at the current site of Reedley. They spoke to each other in epithets until the fight broke out. As expected, Savage knocked Harvey down a couple of times, stomped on him in the approved fashion of the day, and in so doing lost his pistol from his waistband. Harvey, finding his opponent unarmed, pulled out his own weapon and shot Savage several times.

An eye witness reported, "The night he was buried, the Indians built large fires around which they danced, singing the while, the mournful death chant unil the hills around rang with the sound."

Judge Harvey could not preside at his own trial so he appointed his buddy Joel Brooks. Harvey was released. Surprised?

Oh, and Tulare County lived and gave birth to other counties: Fresno, Kings and Kern.



NOTES ON THE ABORIGINAL USE OF WATERWAYS AND RESERVOIRS IN THE SOUTHERN SAN JOAQUIN

Ruben G. Mendoza

In a recent study entitled, "Tasmania: Aquatic Machines and Off-shore Islands," the author, Rhys Jones, illustrates the importance of prehistoric watercraft in the peopling of Australia. A brief review of the Jones article will provide some formidable insights into the use and construction of aquatic craft by prehistoric and ethnohistorically identifiable populations. As a preliminary stab in the dark, I wish to convey a few choice ideas on the often overlooked importance of watercraft among the aboriginal populations of the Southern San Joaquin Valley.

Perhaps the best point of departure, for any discussion concerned with human geography and population movement and dispersal, is that of surveying the ecology of the area under consideration. In the case of the Southern San Joaquin, the presence of extensive alluvial plains and numerous major, as well as, minor waterways and reservoirs is a defining characteristic. A consideration of the attached map of the waterways and reservoirs of the Southern San Joaquin Valley illustrates that much of the valley (especially when considered in terms of the late 1800's), was once connected with a fine lattice-work of streams, rivers, and lakes. Concommitantly, aboriginal settlements throughout the valley tended toward close proximity with available water sources. This is of course not uncommon where human settlement is concerned. What is uncommon, or perhaps unrecognized, is that many areas of the valley that are now areas of modern human settlement, were once covered by fairly extensive marsh areas, streams, and lakes. In fact, much of the area stretching southward from Tulare Lake to the area of Buena Vista Reservoir was once a vast marshland abounding in waterfowl and elk (Cervus nannodes). One need only peruse the published lists of Waldo Wedel's 1941 reports at Buena Vista to obtain some indication of the variety of mammalian resources available to the early inhabitants of the Tulamniu area.

Marshlands are natural sources of water reeds and other exploitable materials. As documented by Frank Latta and others, watercraft were constructed of reeds and woods available in the regions of Yokut settlement. This fact alone is of little significance except when viewed in terms of the abundance of material available for the production of craft capable of circumventing and/or navigating the vast marshlands that held potential aquatic resources and game animals ranging from otter to elk. I would venture to say that the very wealth of resources in the vicinity of waterways and marshlands was a deciding factor in the locational patterning of village settlements in the Southern San Joaquin Valley. In returning to a consideration of the map of waterways and reservoirs, it will be noted that most all major aboriginal settlements cited by such authorities as Frank Latta fall along the routes and boundaries of waterways and reservoirs within the areas indicated.

In attempting to ascertain the principal areas of aboriginal settlement in the Southern San Joaquin, more often than not, the extent to which the prevailing marshlands may have influenced settlement is overlooked. Ethnographically, human settlement patterns favor the margins of lakes

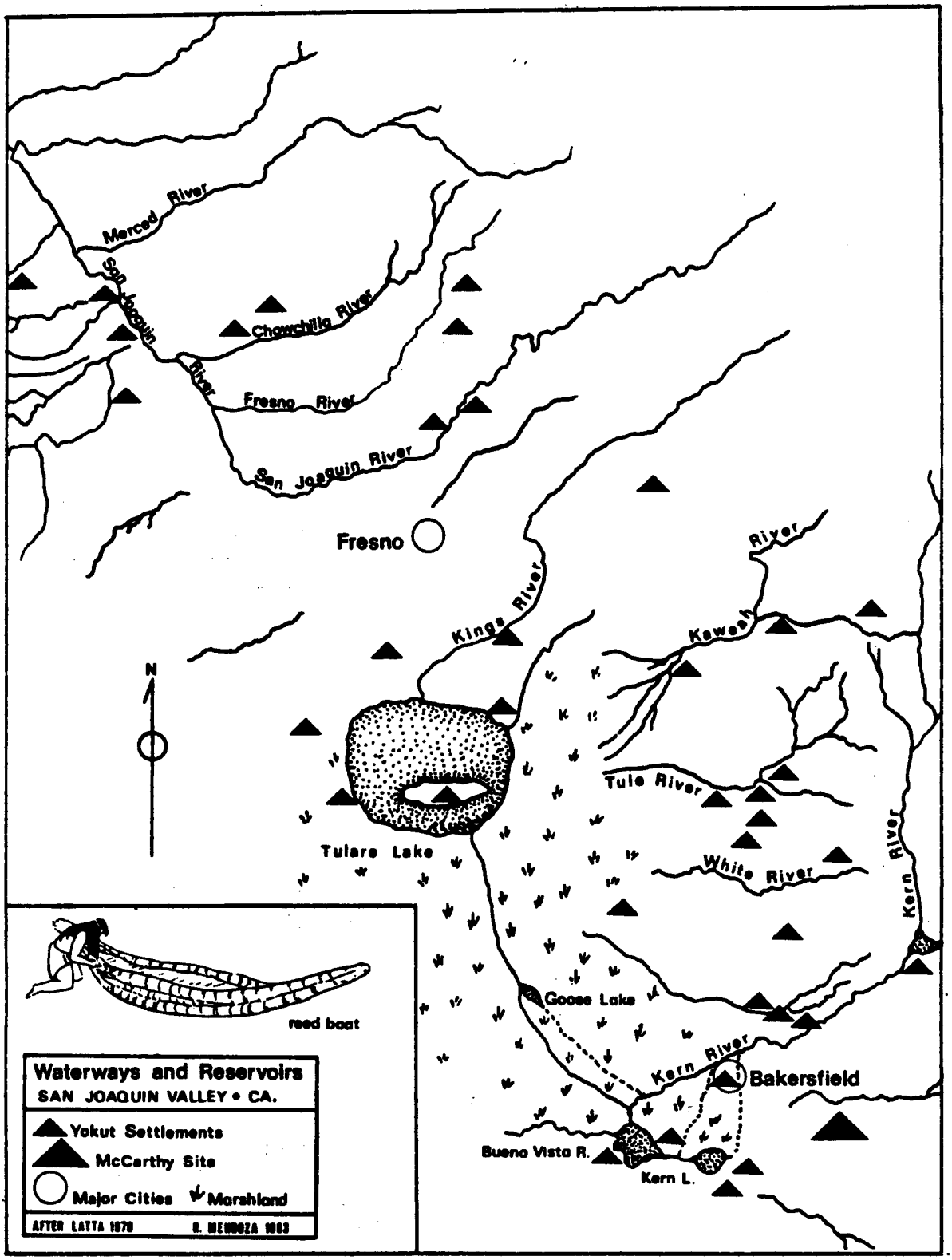


FIG. 1. Map indicating the relation of waterways and reservoirs to aboriginal settlements. Reconstructions of reed boats have been employed to navigate waterways in various areas of the San Joaquin. A couple of such experiments successfully traveled the entire course of the San Joaquin and out to the California coast.

and other large bodies of water. However, in hunting and gathering societies, marshlands were sometimes employed as a means of ensnaring game. Settlements, such as that at the site of Star Carr (England) made use of hunting blinds and shallow marshlands for entrapping animals. In such instances, a deciding factor influencing settlement location was proximity to animal watering and feeding areas. Human settlements tend to cluster within the vicinity of animal watering areas, but at the same time, such settlements are maintained at a relative distance to prevent disturbing animals that may choose to water at the locations in question.

Settlements located along waterways and natural reservoirs invariably exploit the potentials inherent in navigable water courses. The use of reed boats is documented for the Yokut. Similarly, ethnographic evidence serves to corroborate the use of such watercraft for spear-fishing and hunting. Hunters attempting to ensnare game in reed-filled marshes have been known to employ watercraft as a means of finding the best possible vantage point from which to fire upon the unsuspecting game animals who may venture into the marsh to water or feed. In such instances, reed boats serve to aid in the exploitation of the available resources, be they terrestrial or aquatic.

Perhaps a more important observation is that of how watercraft served to aid communication and travel in the Southern San Joaquin. Recently, I had the opportunity to visit the floating gardens of Xochimilco, Mexico. While at Xochimilco, I was struck by the facility and ease of handling which seemed to characterize the use of narrow plank boats by Mexican food and beverage vendors. The plank boats of Xochimilco were propelled and guided by long pine poles used to push the boats away from embankments or other suitable anchors. In the case of Xochimilco, the people are very much dependent on the use of plank boats for communication and exchange of goods and services. If we take liberties with this example, ethnographic analogy provides some idea of the degree to which watercraft may have come to serve and/or dictate the needs of the aboriginal inhabitants of the Southern San Joaquin. In this context, many factors influencing the nature and extent of aboriginal trade among the Yokut may be discussed.

In making any contemporary assessment of the aboriginal use of waterways in California, one must keep in mind that modern water projects, agriculture, and construction have drastically altered the flow and extent of water resources in the state. In order to obtain a clearer picture of extant waterways and reservoirs of potential use to the aboriginal inhabitants of the valley, it is recommended that one turn to maps of the San Joaquin Valley produced between the middle to late 1800's (such maps are available in the Special Collections area of the Beale Library, Bakersfield, California). Future research related to the aboriginal exploitation of waterways and reservoirs in the San Joaquin, must necessarily begin with an exhaustive and meticulous reassessment of ancient waterways in the valley. In the final analysis, the study of water resource exploitation (be this from the standpoint of settlement or communication and exchange) will invariably result in the addition of a very valuable, yet neglected, chapter in California prehistory.

THE BEAR MOUNTAIN PICTOGRAPHS

Floyd Painter

ABSTRACT

Reporting an unrecorded example of the pictographic art of the Yokut of the pictographs (a boulder face, high on a precipitous mountainside), is in itself unusual.

Local features, both natural and archaeological, are explored with the possibility of having a relationship to the symbols portrayed. Hypothetical interpretations are made concerning a portion of the graphic symbols, while others are simply described.

INTRODUCTION

Late in the spring of 1935, the writer (then 15 years old), and his constant friend and companion, Trinidad Lopez (then 14), were following our usual pursuit, exploring the mountains and canyons of the Tehachapi Range.

For the past three years, and the two years to follow, we searched every canyon and mountainside within hiking (or rather climbing) distance of our home town of Arvin, California. Our primary interest was in finding a cave which according to local legend, was filled with religious relics, church ornaments, and ritual paraphernalia (all of gold). This hoard was on its way by ox wagon from Spanish missions and churches of northern California to Mexico, when they were attacked and driven into blind canyon by the celebrated Mexican outlaw, Joaquin Murieta. The wagon was burned and the oxen killed, the gold and several dead defenders were buried in a cave, and the remaining guards and drivers scattered through the mountains to escape the outlaws.

Our secondary interest was in finding the archaeological remains of the historic and prehistoric Indian inhabitants of the region.

We found (far up a canyon), where a wagon had been burned, nearby were several ox shoe halves. We found hundreds of acorn-grinding mortar holes worn deep in the rocks, many stone pestles (some still standing in the mortar holes). We found innumerable chips, flakes and blades of obsidian, and a few arrowheads, but no golden crucifixes or statues, no skeletons of "guardas" or "bueyeros". Our caves were filled with dust and bat guano.

The Indians had lived in the area for many thousands of years, and their artifact remains were scattered all over the land. The Mexican guards and drivers had stayed only a few days, and their legendary gold is still hidden. The Indians were poor, food-gathering basketmakers, with no beautiful pottery and few imperishable objects, but they left us a treasure, a trove in some respects of more value than gold. They left something of themselves, not artifacts of wood or stone, but transcribed thoughts and ideas, a message left to posterity. The value of this treasure would be increased a hundred fold if only we could decipher it.

THE BEAR MOUNTAIN PICTOGRAPHS

On this particular day we had climbed up a shallow canyon (one of many that resemble vertical furrows on the western face of Bear Mountain) to the pinon line. This level (about 4,000 feet) abounds in pinons (nut bearing pine trees), a source of rich food for the aboriginal

inhabitants. Finding little to interest us, we moved a few hundred yards to the north and began descending another small canyon that parallels the one we had climbed. By this method we (over a period of time) traversed the entire western face of the mountain.

"Trini", (a Mexican of Yaqui Indian descent) and the writer, (a mixed blood of Anglo-American and Sac and Fox Indian extraction) were constantly on the alert for rattlesnakes and cougars, in that order. We often addressed each other in a curious mixture of Spanish and English, and kept in constant contact with each other (by whistles and shouted phrases) on these exploring jaunts.

We had descended to about the 3,000 foot level when Trini cried out: "Mira que! Mira que! Floyd! Look! Look!" The writer quickly turned, half expecting to see a cougar. Trini stood pointing excitedly at a hugh boulder on the canyonside. On a vertical face of the rock, accented by afternoon sunlight, stood out the most marvelous painted pictures and symbols our young eyes had ever beheld. Climbing quickly to this, our most astounding discovery, we gazed in awe at human figures, sun and moon symbols, concentric circles, and many other inexplicable graphic creations of primitive minds.

Conspicuously absent among the painted figures were the usual names and initials scratched into the rock by recent visitors. We felt reasonably sure, due to this lack and the relatively inaccessible location of the pictographs, that ours were the first alien eyes ever to look upon these wonderful paintings. Future inquiries among longtime residents and local "Paiute" Indians failed to reveal any knowledge of the paintings, although we were told of other pictograph locations near El Tejon Ranch headquarters and at the mouth of Grapevine Canyon, some twenty miles more to the south. These known pictographs were called "The Compass Rocks" (in reference to the recurring concentric circles depicted) and no doubt were executed by the same group of Indians (Yauelmani Yokuts) who in all probability were the creators of our find.

The Bear Mountain pictographs were painted on a gray granite boulder weighing hundres of tons. The boulder is firmly embedded among other rocks and soil about 50 feet above a dry stream bed. Sometime in the distant geologic past, a huge 9 X 20 foot rectangular block had broken out of the southwestern face of the boulder, leaving a recessed area resembling a shallow porch or vertical wall with an overhanging balcony. The balcony serves to protect the wall beneath from the winter rain and snow. The pictographic symbols cover an area of about 8 X 20 feet and were applied to the protected wall with a red-brown pigment (probably red ochre or iron oxide mixed with animal fat). This wall was judiciously chosen for it receives direct sunlight for most of the daylight hours, and the sun shines on this desert region for about 300 days per year. The aboriginal artists wished to preserve their masterpieces.

The pictographs were executed no doubt, by different individuals, and over a long period of time. Some figures were less clearly defined than others (though equally well protected), and the shaded areas (see Figure 1) represent paintings that were either weathered away by time or purposely obliterated by later artists. In any case the shaded areas are undiscernable. A

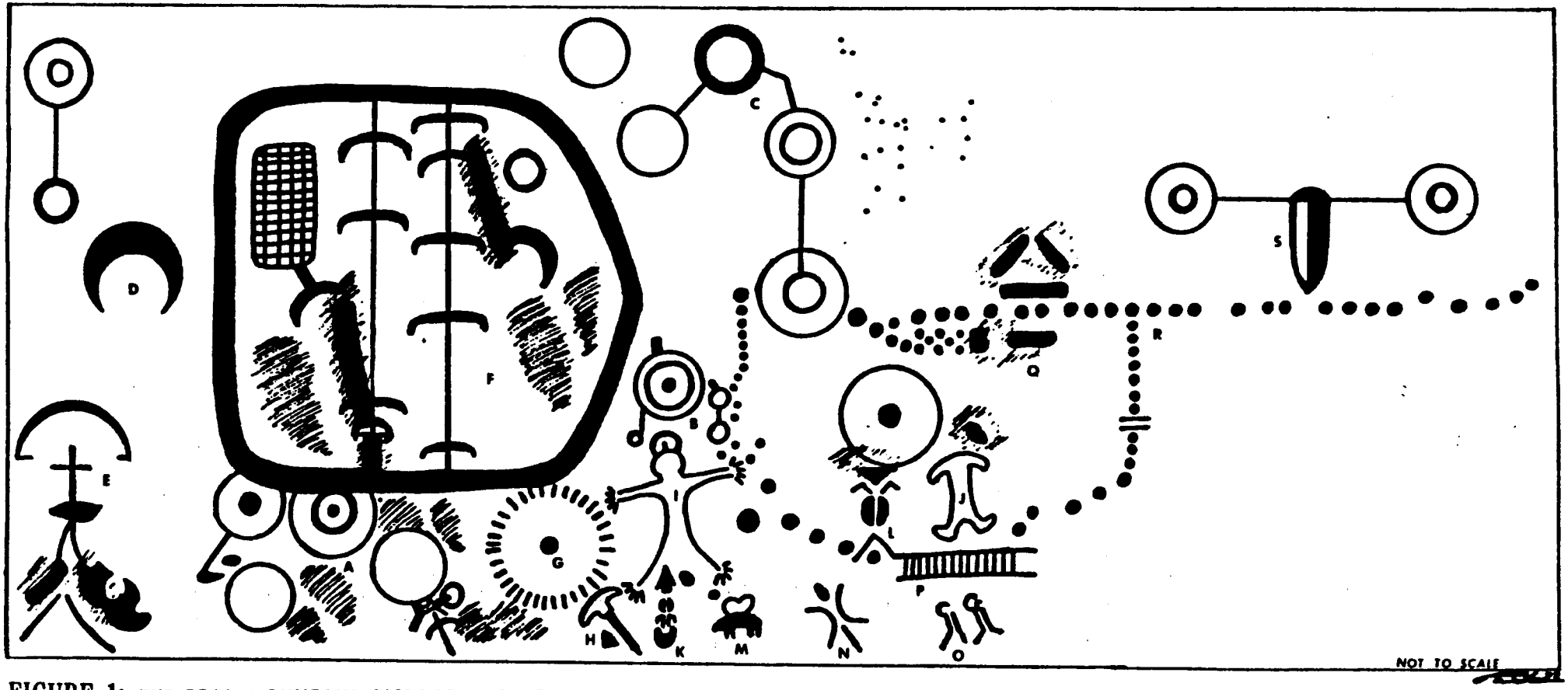


FIGURE 1: THE BEAR MOUNTAIN PICTOGRAPHS, TEHACHAPI RANGE, NEAR ARVIN, KERN COUNTY, CALIFORNIA. THIS ROCK ART WAS NO DOUBT THE PRODUCT OF THE YAUELMANI YOKUTS, HISTORIC INHABITANTS OF THE NEARBY PORTION OF THE SAN JOAQUIN VALLEY. RECENT EARTHQUAKES MAY HAVE DESTROYED THIS FEATURE.

portion of the paintings may have been done within the historic period (as late as 1850), while others surely date from the prehistoric. All have one thing in common, they are carefully done, lines are straight and widths uniform, circles are done with compass-like precision. These pictographs were made by craftsmen.

The writer's reproduction of the pictographs (from a copy drawn for Los Angeles County Museum in 1947, see Figure 1), though not drawn to scale is correct in detail. The number of circles, moon-like symbols, sun rays, bars, dots, and grid squares, are correct by count. All features are in their proper position in relation to one another.

Precise or compass-like circles and concentric circles, with and without connecting lines, are commonly noted in pictographs and petroglyphs of the Mojave Desert and adjacent valley regions of central and southern California. According to Lee Emerson (1971), a Quechan (Yuma) Indian, the traditions of his people state that circles signify camping sites, or sites of springs and other very important places. The writer has long held a similar theory, in fact it is a most logical conclusion. Knowing the location of such places was a matter of life or death to desert peoples and if records were made in the form of glyphs what more important subject would they record?

It is surely very significant that the Bear Mountain pictographs exhibit three groups of 4 and 5 circles (Features A, B, and C) that have a very similar alignment or relationship to one another. It is significant also that the springs and campsites known to the writer (if viewed looking southward) have a very similar alignment or relationship to each other (see Figure 2). Could these three groups of circles be the same map thrice repeated? Note also that the circle over the feature letter is the dominant circle in the group (exhibits more concentric circles or has a thicker ring). Could this be the spring near the line cabin or the pictograph rock?

Feature D (Figure 1), is logically a moon symbol, and there are several others that could be so construed, namely, the top portion of Feature E, and 11 such symbols contained within the framed area designated Feature F. The moon figured prominently in most primitive cultures throughout the world, in fact it still figures in our modern culture. It is logical to suppose that the Yokuts would depict the moon, in connection with religion, seasons or time counts, or simply for its decorational effect.

It is rather obvious that Feature F must have been of great importance. Not only is it the dominant feature but it seems to supersede other features (the border or frame is superimposed over two of the circles of Feature A). Older pictographs may have been partially or totally obliterated in order to create a space for this large feature (note shaded areas where unknown features once existed). Feature F may be the record of a great event, a mystical religious symbol (such as a Navajo sandpainting), or simply a lunar counting device. We will perhaps never know.

The writer has read, and heard, the opinion expressed that pictographic symbols in most cases had meaning only to the person who painted them. This he cannot accept. He feels that the Bear Mountain pictograph

rock (and most other like features) served the function of a bulletin board on which was recorded information useful to and intelligible to the painter's contemporaries, one and all. The Yokuts had little time for useless doodling.

Feature G is in all probability a sun symbol. This feature contains 33 rays or bars around its circumference, which may have some significance. Many primitive mythological and religious concepts were concerned with odd numbers. Among primitive peoples throughout the world the sun was often considered to be the divine creator, or was used as a symbol for the omnipotent entity.

The cross symbol contained in Feature E might indicate early Spanish-christian contact. Padre Francisco Garces discovered and crossed Tehachapi Pass in 1775, and may have passed within a mile or so of the pictograph rock. Padre Junipero Serra entered the San Joaquin Valley as the first European, only a few years before. The christian symbol (if it is indeed intended to be such) may have reached the Yokuts several years before the Spanish arrived in the area, this by contact with the coastal Indians, Chumash, Essolen etc. The christian cross may have made a powerful impression on the local Indians, when they saw it carried by a monk at the head of a column of Spanish explorers and priests.

Another cross-like symbol is depicted by Feature H, which looks for all the world like a miner's pick. This feature may record the arrival of the 49ers, the gold seekers who arrived in 1849. They came swarming over Tehachapi Pass and passed within two miles of the pictograph rock as they descended the While Wolf Grade to the north and reached the valley floor at the Rockpile. The miner's pick may have made a powerful impression on the local Indians, when they saw it carried on the shoulders, strapped to horse packs, and lashed to the sides of the wagons of an endless column of noisy, ruthless, Americano invaders.

Feature I, is of course a human figure, and wearing some sort of hat or headdress. A very primitive stylized form. Feature J, is no doubt another human figure, headless and depicted in a very different, quite sophisticated style. A headless figure may indicate warfare, with Americans, Spanish, or other Indian groups such as the Kawaiisu and Kitanemuk, Uto-Aztecan (locally called Paiutes) groups located to the east and southeast in the Tehachapis. The headless figure could also represent a spirit from or devil-god.

Feature K, would appear to represent an arrowhead or projectile point above a row of animal tracks. The upper tracks could be those of deer, elk, or mountain sheep, the lower, that of a horse. Feature L seems related in form, with two cloven-hoofed tracks surmounted by a triangular form that could represent an arrowhead. Padre Junipero Serra reports seeing great herds of elk and horses in the San Joaquin Valley floor. Mule deer and sheep must have abounded in the mountains in those times. These symbols may have indicated hunting, whether good or bad we will never know.

Feature M, the only feature that Arthur Woodward of Los Angeles County Museum, would attempt to interpret. It resembles a bear superimposed over a heart, Arthur suggested that it might indicate bravery (the heart of

a bear) in some individual (perhaps the fellow depicted above).

Obviously some animal or the pelt of an animal is illustrated in Feature N. A picture reduced to only its essentials.

The author would not even hazard a guess as to the meaning of Feature O, and the same goes for Feature P, the ladder-like design above. Feature Q has weathered away or been erased by later artists and is no longer discernable. Feature R, the rows of dots could be days, seasons, years, some counting of time, people or objects.

Feature S, --- Only the ancient Gods of the Yokuts know the meaning of this symbol, or any of the others as a matter of fact. "Quien sabe! perhaps it tells where the Spanish gold is hidden?

The Yokuts are gone from the lower San Joaquin, and the Tehachapi Range of the great Sierra Nevada. The last one, an aged woman, who lived in the lower Kern River canyon, died in 1930. The remnant of this once numerous people now reside on the Tule River Indian Reservation, near Porterville, Tulare County. The local Indians are now the Kitanemuk (Paiutes), who live and work on Rancho El Tejon. A family of Kitanemuk live in the ranch house about two miles north of the pictograph rock.

Trinidad Lopez and the writer never revealed the location of our great painted rock. We knew that vandals would soon destroy it. We visited it from time to time, perhaps for inspiration. We vowed someday to record it for posterity.

Years later, in 1947, the writer returned to the lower San Joaquin. He had spent 6 years in the Navy, had just returned from a 2-year stay in China, and was awaiting discharge at San Pedro. Weekends were spent in the old haunts, and three trips were made to the pictograph rock. The paintings were still intact. Trini was away somewhere, perhaps still in service.

Assisted by his cousin, William A. Swearengen and his wife Inez, we excavated a limited area beneath the painted face of the rock. We uncovered small particles of charcoal and several mussel shells (brought no doubt from Buena Vista Lake, some 30 miles to the west). The mussel shells bore traces of red-brown paint in their interiors, and had been used as paint palettes by the Indian artists. We tried photographing the pictographs, but with poor results. The paintings did not stand out sufficiently from the gray-granite background.

A drawing was made of the painted symbols, and reproduced by enlargement at the behest of Arthur Woodward, archaeologist for Los Angeles County Museum. The drawing is on file at Los Angeles County Museum. Figure 1 is the second such copy made from the original drawing.

The writer was informed recently by relatives living nearby, that the painted rock probably no longer exists. It may have been destroyed, moved, or covered by earthquakes in recent years. The whole western face of Bear Mountain has slid toward the valley below. "Asi que ser."

RIDING THE BEAR

Ruth M. Riles

The following material is abstracted from a conversation with two Native Americans. The informants are both ordained ministers with fundamentalist Christian sects, they are at the same time very cognizant of their ancestry. They most graciously shared with me information about medicine people, curing and spiritual values. The informants wished to remain anonymous, therefore the names are fictitious. The material is presented in a comparatively unedited form.

Len:

I don't know what you are seeking, but I say it (traditional religion) was a religion just as the white man had. Only, it wasn't written down. It was confirmed by the spirit and they had leadership in the tribe to deal with that spirit. Now, I know that we've been condemned for many reasons, because no matter where you go, there is evil power. There is good and bad.

You were talking about a spring, it was a very sacred place to an Indian. It was a precious place to be. Not just any spring but only certain ones. My grandmother used to tell me, as you were saying, the things that always took place there were miracles. But who was the miracle? Nobody really knew.

I had a man tell me one time, he was the leader of this tribe and in some ways he was concerned about his Indian people. And he prayed in the Indian language. There is a prayer and they speak it to the spirit. He prayed, "Father, up above! Father, one day will you send someone to save my people?"

We talk about how everybody was annihilated and how everybody was living in fear, bringing destruction on the people. (At the time of contact.) The Indian knew that. He was leading a certain tribe so he called upon the Father, "Save my people."

Therefore, now whether you like it or not the Word of God came down. Jesus came by in the form of people's needs today. The man said "Save my people." And, today, there are ministers for not only Whites but for all people. No matter what the spring does, no matter what.

I'm saying this, today the Indian people realize one thing. Through faith in Jesus Christ we are saved. If it was a stone that was going to save us, if it was a rock that was going to save you, then you wouldn't need that either.

Good and evil were balanced. Balanced in a way that the White race would never understand. They call it (curing) witchcraft. O.K., there is witchcraft. There were bad men and there were good men. They talk about the medicine man. I believe his outlook was to help his people. To help in the only way he knew how. And there was the other man called a medicine man. His business was to annihilate, to make them sick.

<u>Why was the second man in business?</u>

Len:

Because of this. Greed, comes into the minds of the people. Jealousy, envy. You see, did you ever notice when we do good some talk bad about you? It is going to come out eventually because people are held back because of greediness, on both sides.

I used to think if somebody came to me wanting to know my business, that there was something wrong. I better watch out for them. And that's the way the tribes were. They saw one getting all the admiration and they didn't like it so evil came in. And the jealous one wanted to destroy, to get even. But he only destroyed himself. Because they found out who was the destroyer and they destroyed him.

It was the same way when Jesus walked the earth many years ago. And he was performing miracles. And who put him to death? It was the religious authorities, the righteous people. Righteous on the outside, but bitter on the inside. The first thing that came upon them was fear. No matter where we turn in the world today, there is fear. It is fear that drives us.

The religious people were afraid of losing their authority. They were saying, This man is doing more than I can ever do. Pretty soon we are going to lose our authority. He's going to be King, which he was. So, they wiped him out. But he rose on the third day. And it really wasn't here, what we were looking for. Like them old rocks. (Pointing to a pestle.)

My grandmother died at a hundred and five. She still knew about the bear people. She used to tell me that to become a bear man or bear woman wasn't a simple thing. It was a very sacred thing. You just didn't stay filthy and be a bear woman or bear man. That is why the springs were very important to them. They had to have a sacred spring.

My grandmother used to tell me when she was a little girl, she had her own bear suit. The old man, her father, used to get up and just sing a song. They had to go to a certain place where they had the bear suit stored--nobody would come near it. They couldn't get near it.

And he (the old man), would sing a certain song, and she would sit there (and watch). I asked her, "Grandma were you scared?" She'd say, "Nah!"

She was telling me, it was just like a car. (Riding the bear.) "Do you get scared of a car?" I said no. "No! you get in it and away you go." She said, "That was our transportation." It wasn't to kill, it wasn't to do anything. It was just transportation.

He (the old man) would sing the song and the bear suit would growl like a bear and rise on all fours. There was just the skin, like a burlap sack. And, she'd just get in it. She said it was fixed so you could get in it like this. (He posed like a bear standing with its paws outstretched.)

I was very young and I said "Grandma, how did you maneuver it. How do you turn it around?" "Why!" she said. "It was just like when you are walking. How do you turn when you are walking?" And I said, "Why I just turn!" She said, "That's exactly how I did. I said, I'm turning. And it turns. When I get to a rock I jump." The mind took control of that thing. She said

she could run at tremendous speeds.

Did the bear people have a bad reputation?

Len:

Well, that's what I was telling you. People use things for good and bad. People use it to annihilate you. They find you and slap you around. (He mimed a bear swinging its paws.) You know how a bear slaps you? You don't stand a chance. And they said that for their own protection they used to have things sewed into the palm of the hands. (Of the bear suit.) To protect themselves. (He is speaking of the bear people.) Sharp as razors.

(The things sewed into the palm of the bear suit appear to be semi-lunate flakes of obsidian.)

And if it ever hit you it would cut you to ribbons. She said they didn't use that (the claws) unless they had to.

She used to ride them. (The bear.) When she was a little girl. Then when she grew up she let it go. 'Cause she did not learn about it, how to make the bear suit stand. You just don't sing the song and make it rise. There are other portions you have to do. Fast, some fast thirty days. No water, no food. It took all that. You see even in the Word of God it says to fast and pray and you get power behind you.

Really, the authority was coming from somewhere. Wasn't it? (The informant was suggesting here that the power of the bear people is not from an evil source. He probably was defensive about the fundamentalist doctrine which tends to equate all native religion with devil and demon worship.)

Let me tell you another thing. I had a grandfather, on my mothers side. He had ways of touching rocks--like this. (He enclosed a rock in his fist.) He'd go down and pick a rock up. And he'd sing four songs and lay it (the rock) down. Then he'd say, "You pick it up!" And you couldn't pick it up. You'd burn your fingers! O.K., I can't do it. His sons could not do it. He was the only one who could do it. And to comprehend this thing--they would have to,what would I say? Give up your wife. Give up everything in life in the natural way. Give up everything and just become that. (The medicine man).

What good is that? That's the reason they say now, well, let's bring the Indian culture back You can't do it because there is no sacrificial heart anymore. You're trying to do it. (Bring back the culture.) You are trying to reconstruct it, put it down, but that's all. After that, it will be just a story book and the next generation will say, "What a fairy tale! It's written by so and so. I'd like to meet her. What a dreamer!"

What about the Pan Indian movement?

Len:

...And I tell them "What are you going to benefit out of it?" They're living pretty high on the hog over it. But yet they're not doing the Indian any good. Not the young teenagers at all. And I said, "For my people I don't want that." And I say, "I'm not a very intelligent man, but I can see this country is about exhausted." And there's nobody in the world who is going to bring it back out of exhaustion.

What will happen to the Indians?

Len:

I have two grandsons and they look like you. You read that the Indian race is dying out. Not because of sickness or anything but because of themselves. The way we're going about life. Intermarriage, for one thing, is taking it all out. In another twenty years, there will be very few Indians. That you can see. He might say he's an Indian, but he won't look like one. Now me, I am an Indian. You can look at me and see that. But this new generation, you are not going to see no Indian.

What about the future?

Len:

There must be something more ahead than the jet plane. I want to believe that anyway. There must be more hidden mysteries behind this thing that we've not found. There has to be something far greater than the jet plane. Do you think we will come to the point where we will find all the answers?

Can you tell me about Indian medicines and herbs?

Len:

Well, it's a very precious thing to me, because you can't walk into a drug store to buy them. You can't walk into a drug store and tell him how you feel and have him prescribe medicine. You have to go to a doctor too and you are liable to go up there and dig up the herbs and try them out. These herbs are very powerful and you need to know how to use them or they do you more harm than good.

Joe:

You wanted to know about things my father used to cure people? (The second informant had spoken very little, although his father was also an herbalist.) He had a dream. He dreamed about a certain flower, in a certain place. He dreamed that dream one time and he dreamed it again. So, he knew in his mind there would be a certain place, and he sees the leaves of a flower that are a cure for something. He went around for two or three years and finally one day he spotted that same thing he had seen in that dream. He went and found that flower. So, this was the type of thing God gave the Indians. Certain things they could use like herbs and stuff.

There were different kinds of medicine people and they worked in different ways. Each one of them was different. Some used herbs and things. Then there were the ones that used cutting and bleeding and sucking things out. Sucking that pus out. Some used smokes or some used dreams, some used dances or songs--all different kinds. Just as today you have medical specialists, they had specialists too. For different things.

There is a man who used to cure by cutting. With glass. I guess they used to use obsidian. He would cut you in different places. This lady, she had a swollen leg. He cut here around the ankle and sucked all that pus out and the next day she was walking.

When there was a snake bite, he'd cut it and suck it out. Now, you know, if you got trouble in your arm, that's what he would do. He'd cut you. First, he would have to do a ceremony. They'd sing for a while, then they'd

smoke. And when they got hopped up on it (the smoke), then they'd go about doing it. They'd sing and do all of those things and then they'd start cutting and sucking it out. They'd get rid of the evil spirits too, they would come out.

The spirits came from under the ground, mostly. There were some (medicine men) who would go out and chase the spirits. They'd run outside. There was a man here who could chase them down. He would catch them and where ever he caught them he'd lay his hands on them. He used to run around here at night, barefoot! He'd catch them and he would send them back to where they came from.

The medicine man told me where he got his power. His dad or uncle before him was also a medicine man. When he was twelve he knew he was going to be a medicine man because one day when he was crossing a stream - you see each medicine man got his power from a different source. One day when he was going across a little foot bridge, he looked down in the creek and there was the moon. And he stopped and looked down at it. It was daytime and there was no moon in the sky, so he stopped and looked at it and tried to catch it but could not. It would move every time.

He went and told his uncle about the moon in the water. His uncle told him, that is going to be your power, and it was. That's where he got his power from. The power to do things. Before he got his power though, he had to go up into the mountains and do a lot of things his uncle told him to do. He had to stay in the mountains, by himself, for three days. He prayed and fasted and all that stuff. He had visions. Later he got visions, too. When he got to become a medicine man he would use a pipe and smoke it. It had tobacco in it and other things - roots. He'd smoke and see visions.

He did these things at night. He'd smoke and sometimes he'd get a little glass (obsidian), and where ever it bothered them he'd cut and then suck the blood out and pray over them and sing. He was in a trance. He said he did not even know what he was doing lots of times. He talked (in the trance) some kind of language. I don't know what it was, I never understood it.

People respected him. There was no fear of that kind of man because he was a medicine man. He wasn't one of the evil ones he was there to help.

Why did people go to the evil ones?

Joe:

To get back at their friends. You see somebody would put a hex on somebody and they would go to the medicine man and cure it. The bad one was the one to be feared. He had his own friends but, most people kept out of his way. The medicine man would know what caused the illness. He would give them some kind of medicine to take and they would get well. Or else, they would die.

What is the word for medicine man?

Joe:

They call him uhntru.

What is tripne? (Latta calls the more powerful medicine men tripne.)

Joe:

Just God! It depends on how you use

it. You could say about a man if he did something godlike, that he was tripne. It means the same as supernatural. Anybody that could do things out of the ordinary was tripne. You use it different ways. That is the problem with our language. When I read books that tell what the words mean they only give one of the meanings. Just like the word run. In our language there are several ways to say run. How you express it could mean different things.

(We discussed meanings of words and then came back to curing. The first man again took up the narrative.)

How did they define illness?

Len:

Now people say the Indians were not believers until the White man got here. It ain't so! The Indians believed in Jesus in their own way. The Indians didn't have any writing so they had to see it in dreams.

They had a dreamer. And that dreamer had to go around and tell people what the dream was. And they said everything he dreamed that came to pass was of God. If it didn't come to pass then it wasn't so.

The dreamer was a chosen vessel. It's that way with me. My family were brought up that way. Through long generations (we were dreamers). My aunt was a dreamer. In our family, I'm not the only minister. There were other ministers.

You are a descendent of dreamers?

Len:

Yes, my aunt on my father's side (was a dreamer). She predicted things and they came to pass.

. . . . .

Ethnologists have tried to determine if there was an hereditary factor in the leadership among California groups. I was quite interested in the fact that Len comes from a long line of 'medicine' people and that information on ceremonies was handed down among members of his family. I was very intrigued by the glimpses into the rationale of the Bear People, and their belief that they had to defend themselves from others. In the ethnographic and ethnohistorical material, it seems as if the non-spiritual were fearful of the powerful 'shamen', not the other way around.

THE BECKE LINE AND TEST AS AN ARCHAEOLOGICAL TOOL

by

FLORA DARLING

The California Indians had over 131 mines and quarries from which were mined a variety of materials. One of the questions which arises in the course of archaeological exploration is the probable source of materials found at a site. One inexpensive method which can be used to test obsidian is the Becke line and test of refractive indices.

The refractive index (R.I.) is a characterizing number which expresses the ratio of the velocity of light in vacuo to the velocity of light in the substance examined. The Becke line is a bright line, visable under the petrographic microscope used in comparing indices of refraction.

The mineral to be tested is powdered into fragments. It is then placed in a solution which allows the optical properties to be determined. These properties may characterize a mineral sufficiently to permit its identification. The powdered mineral is placed on a glass slide, and a drop of liquid with a known refractive index is added. The slide is then covered with a cover slip. The test determines the refractive indexes by the immersion method.

The calibrating liquids range in refractive index from 1.41 to 1.77. The refractive index of obsidian lies between these extremes at 1.48 to 1.61. This suggests possibilities in the use of the Becke test in the determination of the source. If, for example, the refractive index (R.I.) of obsidian taken from a quarry is found to match a sample taken from a site then a trade connection may be hypothesized.

In order to test the feasibility of matching R.I.s a preliminary study of five samples from differing sites was made. Table I is the result of those tests.

TABLE I

Obsidian source	R.I.
Santa Barbara site	1.54-1.55
Buena Vista Lake site	1.54-1.55
McCarthy Ranch	1.58-1.59
Mojave	1.58-1.59
Trout Creek (Kernville)	1.48-1.49

The samples yielded matches between the Santa Barbara and the Buena Vista sites, suggesting that the source of this obsidian was the same flow. There were also matches between the Mojave and the McCarthy samples, supporting ethnographic information of ties with desert people for the McCarthy inhabitants. The sample from Trout Creek was not similar to either of the other sources.

This preliminary study suggests that the Beck test may be of use in the sourcing of materials.

HISTORICAL GEOLOGY OF THE CALIENTE AREA

Beverly J. Foster

Caliente is situated at the Southern end of the Sierra Nevada Mountain Range which trends north and south. Further south, the Tehachapi Mountains trend east and west. To the west, the coastal range parallels the Sierras. Caliente is at the end of the Sierra Nevadas which decrease in height from the imposing height of Mt. Whitney which is the highest point in the United States.

The evolution of the California landscape has been in progress for many millions of years. Transformations have been brought about for the most part by plate tectonics. Two plates, namely the Pacific Plate and the North American Plate came into contact with each other about 30 million years ago. This interaction caused the development of the San Andreas Fault. This fault has a right slip movement and has been active about 10-20 million years.

The Sierras have been transformed through millions of years by folding, faulting, erosion, compression, uplift, and have been covered by a shallow ocean about 39 to 40 times. Erosion, transportation of sediments and the accumulation of these sediments continued for millions of years.

Glaciation occurred during the beginning of the Pleistocene epoch. The advent of the glaciers also lowered sea levels. The last ice retreat was 25,000 years ago (Hinds 1952:26).

The following is excerpted from "Geology of the Breckenridge Mountain Quadrangle California." The material is pertinent to the geographical site of the archaeological research in this journal. Our site is located on a syncline and joined on each side by the Clear Creek and the Tehachapi Creek, respectively.

Paleozoic - 570 MYBP - 230 MYBP (?)

Sediments were deposited by the open sea as "alternating sand, silt, clay and limestone beds." (Bulletin 168, 1953:51)

Jurassic - 230 MYBP - 195 MYBP

Orogenic period of mountain building. Sediments were compressed and folded. The trend of the compression was from north to south. Metamorphism continued and caused recrystallization of sediments.

Cretaceous - Eocene - 141 MYBP - 37 MYBP

Stratigraphic disconformity (probably due to erosion).

Oligocene - 37 MYBP - 26 MYBP

More mountain building and the erosion of the previous period continues. The eroded rubble was dumped in a valley emerging from these mountains, at the present site of Caliente Canyon, to form the Bealville fanglomerate which accumulated to a great thickness during Oligocene time." (52)

Miocene - 26 MYBP - 7 MYBP

More erosion of the mountains and more deposition of sediments in Caliente Canyon. Some local volcanic activity occurred at this time. The San Joaquin Valley was submerged under a shallow sea. The foothills of lower Caliente Canyon were the margin of the San Joaquin Valley. The Edison Fault was active during this period.

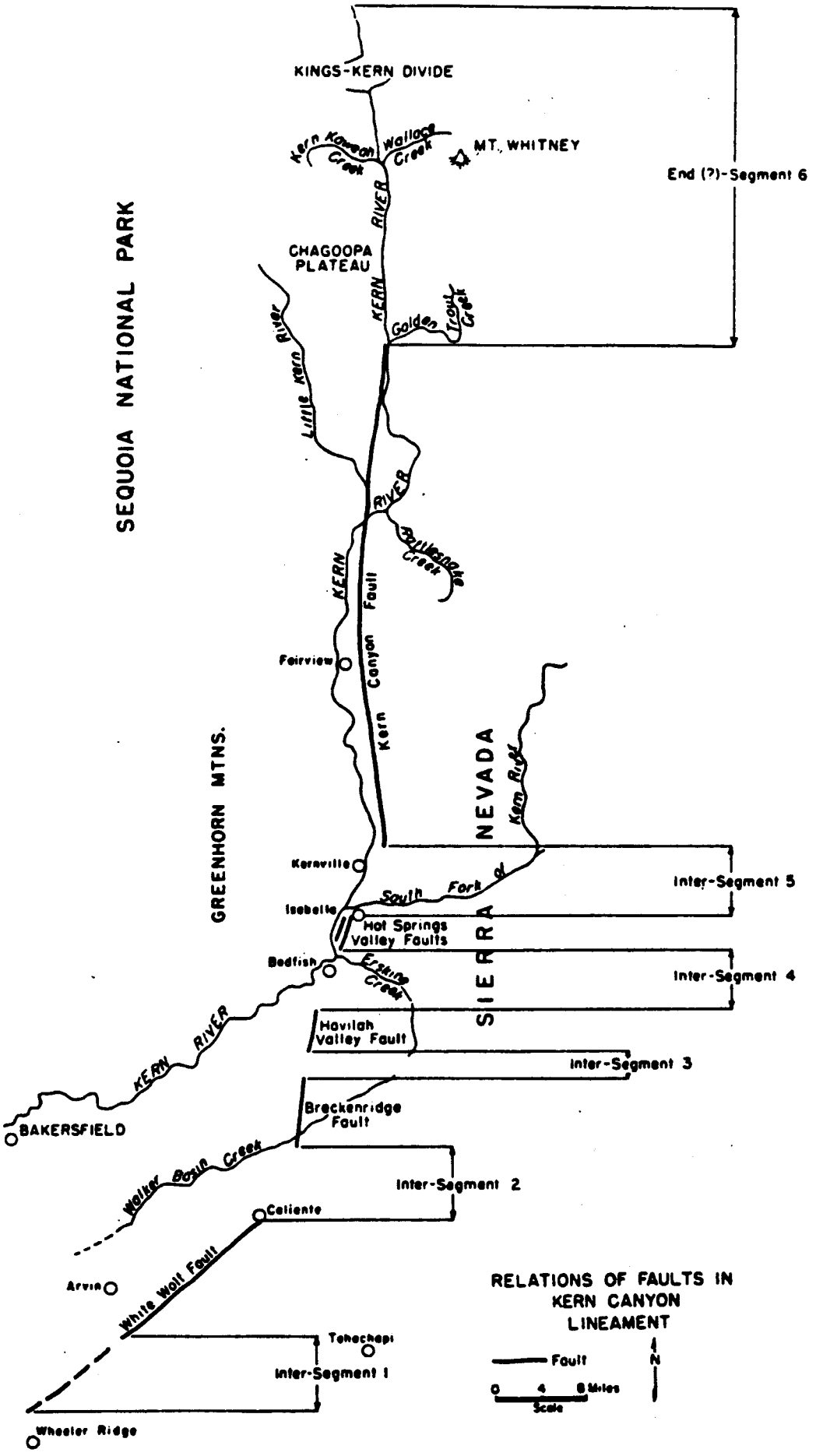


FIGURE 1. (Webb 1952)

Pliocene - 7 MYBP - 2.5 MYBP

There was more uplift and more erosion during this time. The eroded material was carried by the Kern River to the San Joaquin Valley which had "emerged from the sea in late Miocene or early Pliocene times." (53)

Pleistocene - 2.5 MYBP - Present

During the early Pleistocene, there was more uplift and more erosion. "During the disturbance the entire area lying within the quadrangle was tilted westward, was eroded, and the present stream pattern developed." (53) "Most major faults, other than the Edison Fault, probably originated during this disturbance." (53)

Middle Pleistocene - More erosion

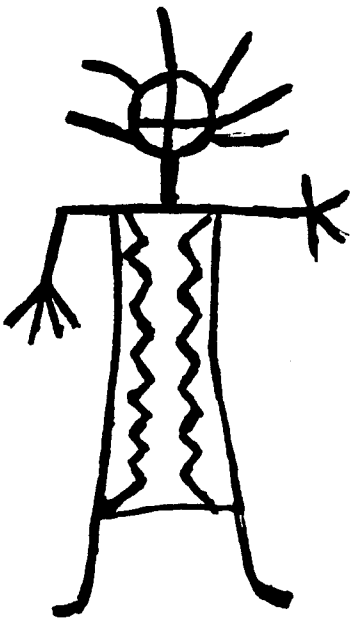
Late Pleistocene - Uplift of the mountains to their present height. The erosion is continuing at this stage in time.

The following was excerpted from "Earthquakes in Kern County, California During 1952."

One of the most recent geologic activities in this Caliente area was the July 21, 1952 Arvin-Tehachapi earthquake. Earthquake activity is closely related to mountain building and also tectonic strain. This earthquake originated near Wheeler Ridge along the White Wolf fault (Fig. I) which is a left lateral fault. It had a magnitude of 7.7 on the Richter Scale making it a major California earthquake.

"By far the predominant effect of the earthquake on these streams and springs in eastern Kern County was to increase the flow. Probably the most noteworthy evidence of this increase was in Caliente Creek basin. Before the earthquake the stream channel of Caliente Creek (25) was completely dry below its confluence with Tehachapi Creek at the town of Caliente. Immediately after the earthquake, the flow from springs in the headwaters increased so that within a few days the flow of Caliente Creek reached about 25 cubic feet per second and remained near that value until winter precipitation increased and sustained a still larger flow." (81)

Small but perceptible changes continue to alter the prevailing landforms of the Southern San Joaquin, and though minute, these provide indications of the continuous chain of geological events that will eventually result in major transformations of the local ecology.



THE SOUL'S JOURNEY
A METAPHOR OF THE SEASONS

by
Ruth M. Riles

The Huicholes of Mexico are a comparatively untouched, traditional people. They occupy the Sierra Madre Occidental and the Sierra del Nayar at present (DeLaRosa 1976:1). This area includes portions of the states of Nayarit and Jalisco.

The Huichole religion retains images of primal deities and pre-Christian symbology (DeLaRosa 1976:1). One of their rituals tells the story of the soul in the after world, in the land of the dead. In this legend the soul takes part in a drama. It follows a path along which are many perils. Throughout the journey the soul is harrassed by the 'ancestors' and stalked by soul-catcher. Finally, the soul is captured and returned to the funeral so that it might bid its relatives and friends a farewell.

In this ritual enactment the bond between human, animal, plant and cosmos is given substance. The journey of the soul depicts the movements of celestial bodies and serves as a metaphor of the seasons.

The data on the journey of the soul is taken from a paper by Ma. Guadalupe Castro de DeLaRosa, A Five-Day Odyssey: Journey of the Soul After Death, 1976.

THE HUICHOLE CEREMONY

The Huichole funeral ceremony takes place five days after death. For the ritual, the objects associated with the soul's life time activities are placed on a bamboo platform. The objects are keyed to the gender of the deceased. Women, for example, are represented by brooms, spindles and cooking implements (DeLaRosa 1976).

The following illustration from the Codex Mendoza shows this arrangement in a baptismal ceremony (Sten 1978:123). The objects in the bottom foreground symbolize women.

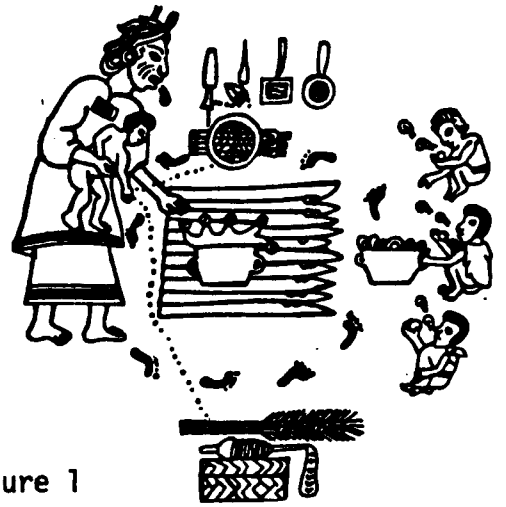


Figure 1

The objects in the foreground are a broom (resembling a feather duster) and a spindle signifying weaving. At the rear of the platform are objects associated with males. In this symbolic system an object may have more than one association. For instance, the broom may signify woman, and a goddess who sweeps the rain gods heaven. The spindle and weaving is also an association of the moon goddess.

The footprints around the platform indicate that the ceremony contains a statement about a journey. In this case the journey is through life. The Huichole believe that the journey does not end with death, but that the dead will experience adventures commensurate with their behavior in life.

In the hours preceeding death, the soul 'relives' all of its experiences, back to the moment of birth. Of special importance in the drama of the afterlife are sexual encounters. Sex with 'outsiders' is a mistake, as is incest and the eating of the sacred opossum. (The opossum is sacred because he brought fire for mankind.)

While mistakes are frowned upon, the details of the drama seem to indicate approval of affairs. Ultimately the affairs 'feed' the ancestors. On the journey, the soul is forced to carry symbols of all his affairs, phalluses or vaginas, one for each 'mistake' while living. These objects will be later used to knock fruit off of the tree of life. The hungry ancestors are waiting at the foot of the tree for the fruit to fall.

As the 'soul' remembers its life, the shaman recounts the details to the onlookers and mourners. When the sould has remembered everything, death strikes, the person dies and the journey through the land of the dead begins.

The principal characters in the drama are the soul, which, although ordinarily a cloud, now takes the form of a skeleton, the shaman (Marakame), and his supernatural aide soul-catcher (Waxiewe). Other personages are also involved in the chase and capture of the soul. These are the Fire God, the Deer Person (Kauyumarie), a Black Wasp (symbol of the planet venus), and the Sun.

The Shaman is able to 'see' the action in the underworld with the aid of magical multi-colored arrows, probably signifying the sun's rays. The power to 'see' is derived ultimately from Fire God (Tatewari) and Deer Person. Soul-catcher also has special equipment, a specially knotted rope and spines or sticks. Spines or thorns were part of the religious paraphernalia used in auto-sacrifice by the Aztecs. Sticks are associated with women and may also relate to a constellation, Mastelexos or Little Sticks (Coe 1975: 20).

THE JOURNEY

The soul travels a 'road' that leads first to the right (rises?), then bifurcates. On the path to the left, or descending road, the soul is tortured. On the road to the right the soul must buy passage of various creatures who require offerings of food. For this latter purpose the soul must carry miniature multi-colored corn tortillas (DeLaRosa 1976).

At the beginning of the road there is the Place of the Black Stones (obsidian?). The soul arrives at the stones and gives them a kick. The noise alerts the ancestors (shown as skulls) and the mourners that the sould has reached the point of departure (DeLaRosa 1976).

The stone may be evocative of the Thunder gods heaven, where the stone slabs clash together (Coe 1975). The symbolism of the kick may have other associations. For instance, the Aztec slave was kicked. The Codex Tro-Cortesian shows this action (Sten 1978:95).

Figure 2

These captives were often slated for sacrifice to the gods, so the kick may evoke sacrifice.

The kicking may also be associated with communicating with the gods. In the festival of Ochpaniztli, recorded by Sahagun, a priest 'kicked' a drum as part of the ritual. This festival included a procession of communicants bearing phalluses. It also included the sacrifice of a victim who was shot with an arrow (pierced), then thrown from the top of a pole. (Did the pole evoke the ancestral tree at the center of the universe/)

THE ROAD TO THE LEFT

Those who have made 'mistakes' must take the road to the left. On the left, the soul comes to the place of the spine (thorn). At this place the soul is set upon by other souls (ancestors), who spit the soul on the thorn and roast it over a fire. Glyphs showing the pricking with thorns are found in the Codex Mendoza (Sten 1978:122).

Figure 3

The translation of this passage in Mendoza relates it to the education of children. In this same series there is a glyph of a 'child' being held over flames as punishment.

Figure 4

Burning of sacrifical victims occurred in connection with several major religious festivals. In one ceremony, victims representing the sun and moon were burned. This commemorated the resurrection of the sun and moon in the fires of the under world. Fires also seem to suggest purification, just as in the Chrisitan symbology.

The coupling of the spitting and burning suggests to me the cooking of corn. The soul has become identified with the sacred corn. Corn is a major theme in the legend of the soul's journey.

After leaving the place of the spine, the soul arrives at the place where the mountains crash together. In this crashing we have again the evocation of rain and storm elements.

The soul tries to pass the mountains. The mountains attempt to crush (grind?) the soul. The soul, who has taken the form of a skeleton, dashes past the obstacle.

In the crushing or grinding we have a second association with corn. Corn is ground before it is cooked. In a Mayan legend there is a con-

nection between corn-bones-creation. Mankind is created from the grinding of bones and corn.

The next experience on the road completes the association between the soul and corn. Once past the crashing mountains the soul is chucked into a pot of hot water. The water is polluted with mud and worms.

The skeleton in the pot suggests the boiling of corn. There are other associations suggested by traditional art work. At the Ball Court of Tajin, for instance, there is a carving of a skeleton emerging from a pot. Over the skeleton is the glyph of a moon. The pot upright seems to stand for the dry season (?). The pot is interchangeable with the womb associated with the moon.

After the skeleton emerges from the pot of hot water it arrives at a corral, or enclosure. In the corral there are mules which proceed to kick and bite the soul to 'death' (senseless).

The mules, of course, are post-columbian. The kick we have encountered before. The bite will be a minor theme in the action on the road to the right and seems to be associated with the grinding and crushing motif.

The experiences of the soul on the left hand road are related to the corn god on one level and to the consumption of corn. The skeleton (soul-corn) is spitted, roasted, ground and boiled, all means of preparing corn.

On another level there is a definite theme of sacrifice, as the 'punishments' are all traditional means of offering victims to the god. Victims were offered to gods associated with renewal and the bringing of rain. The symbolic activities on the road to the left evoke rain deities with the crashing of stones and the muddy water.

Once the soul has recovered from the kicking it returns to the Place of the Black Stones. From there it sets out on the road to the right.

THE ROAD TO THE RIGHT

On the road to the right the soul must buy passage with its miniature multi-colored tortillas. It first encounters a small black dog with a white spot on its throat. This dog is associated with the underworld.

The dog is tied with a rope but it threatens to bite the soul and complains of mal-treatment at the hands of the soul. The dog is appeased with <u>five</u> of the tortillas.

Beginning with the dog we have a repetition of the themes in the first portion of the lengend. The biting evokes the biting and grinding of the skeleton on the road to the left. This time, however, food is available and the human is allowed to share then to pass.

After passing the dog the soul meets a raven. The raven rails against the soul for maltreatment. The soul buys passage with five tortillas.

The soul next encounters an opossum, sacred animal associated with the fire god. In some places the opossum is a god of the underworld.

The opossum threatens to crush (grind?) the soul with a big flat stone (metate?). This stone is positioned like a trap over the pathway. If the 'soul' has eaten opossum while alive, he will be ground up or crushed by the opossum. This grind-

ing is related to masticating as the opossum remarks that this is how it feels to be eaten.

The grinding-eating theme on the right ties in with the biting, crushing action on the left-most road. More clearly we can see that the bites of the mules equate to the bite of the dog and then to the crushing of the soul by the opossum. The crushing of the mountains is also part of this theme.

As in the case of the road to the left the action on the road to the right seems designed to equate the experiences of the soul (skeleton) to those of plants and animals that the soul has consumed while alive.

After leaving the opossum behind, the soul encounters a large white 'worm with legs' which I identify with a scorpion. This 'worm' represents a first affair and it demands to be hugged by the soul.

Last on the right hand road the soul comes to two ponds, one clear, the other full of worms (snakes?). The soul is made to drink from the foul water.

THE TREE OF THE ANCESTORS

The soul ends its adventures on the right hand road and finds itself at the tree of the ancestors. This tree has five branches and five roots.

Around the tree are the ancestors waiting to be fed. The soul throws the vaginas or phalluses, 'like rocks', at the fruit on the tree. The fruit falls and the ancestors feed.

Women souls throw five phalluses and toss the rest onto a pile near the tree. It is unclear how many vaginas the male soul throws. The impression given is that fewer than five is the rule. As in the case of the phalluses the excess are tossed onto a pile.

Around the tree are five fires or dance areas. The souls of the ancestors eat, drink and make merry at the dances.

One dance is the roating corn ceremony. Here the soul drinks corn beer (nawa), takes peyote and dances. At each fire the soul will dance five times around the plaza.

Another dance is the Danza de los Malacates Giratorios (rotating capstan or whim). The capstan is a hoisting or hauling apparatus, consisting of a horizontal drum or spool (spindle) on which is wound a rope or chain.) The capstan is a metaphor of the spindle and thus evokes weaving.

The dance of the whirling capstan takes place on a stone square. At this ceremony, the soul drinks nawa, eats fish and deer meat soups and dances five times around the square.

At the last station, the soul dances the Nanawata. During the Nanawata, yarn skeins are thrown into the air. Since the action immediately following this dance is the capture of the soul with a rope, the skeins may relate to this capture. Among the Mayans, whose Deer ceremony is similar to the Huichol legend, yarn and clouds are associated. The Huichole soul appears as a cloud until it walks along the left most road. We may have a similar set of beliefs being expressed.

At the dance of the Nanawata the soul partakes of corn gruel made from multi-colored corn.

The theme of the tree area is eating and drinking. It is thus linked symbolically to the right hand road and to the left. It differs in the mood that prevails. On the right hand road the soul gives food, on the left it is food, at the tree it eats.

The foods eaten are tied ritually to primary deities. Corn beer and peyote suggest the moon goddess involvement. Deer is most often related to the sun.

The name of the dance, the Nanawata, also evokes the sun and moon. Nanawata is phonetically very similar to Nanahuatl a name associated with the sun in one of his guises.

Quetzalcoatl-Nanahuatl and his twin Tecciztecatl, figures from Aztec mythology, jump into a fire at midnight and are reborn as the sun and moon respectively. In the festivals where this event is reenacted, victims representing these gods were burned (Graulich 1981:49).

The number five also has great significance in this legend. There are five events on each of the roads. The soul carries five tortillas. He dances five times around each fire. There are five dances at the tree. Five vaginas are thrown at the tree.

The number five can evoke several important concepts. There are five directions, four points of the compass and the center or here. There were five intercalary days at the end of the year. Most significantly, Venus travels in the fifth heaven.

Quetzalcoatl, in his guise as the morning star (Venus) is partnered with the dog (god) Xolotl. The dog on the right hand road is probably related to this creature. Among the Mayans, it is this dog that retrieves the bones which are ground to create mankind.

There is a relationship between Venus and cooking fires. At Venus' heliacal rising, which occurred every 584 days, he threw a spear at water and maize and caused famine (Coe 1975). Five synodic periods of Venus equals eight earth years. Every five Venus periods, Venus returns to the same position in the sky relative to earth.

The travel of the soul compresses major themes into one vehicle. Dominant themes include the appearance of celestial beings, Venus among them.

THE CAPTURE

As the soul dances the Nanawata, the soul catcher, who has been stalking the soul, makes his move. Soul catcher is armed with spines (thorns) and sticks.

Figure 5 Tro-Cortesian (Sten 1975:20). Hunter or soul-catcher.

The hunter in the glyph from the Tro-Cortesian suggests a relationship with corn as it appears to represent the flayed god.

In the Huichol symbolic system, deer, corn, and peyote are linked (DeLaRosa 1976). The figure from the Tro-Cortesian suggests that at one level the corn god is involved in the chase of the soul. In Aztec mythology, Xipe Totec, the flayed god (corn), sheds his skin and becomes Quetzalcoatl redeemed (Lons 1974). Quetzalcoatl in one of his guises is the sun. In the Huichol myth the sun is appealed to when the soul refuses to return to earth. This suggests the suns involvement in the chase.

If the soul is male, soul catcher throws spines into its path as it dances the Nanawata. If the soul is female, soul catcher tosses down sticks. The spines or sticks pierce the foot of the soul.

The piercing of the foot is probably associated with the piercing of the body with arrows. A second association or perhaps the same idea in another form is suggested by a glyph in the Tro-Cortesian (Sten 1975:95). In Figure 6, the hunter, the same being that is shown in figure 5, is now depicted with a 'war-club'. His foot is being pierced by a snake which resembles the outline of the constellation Draco. While this glyph shows a serpent biting a foot and the Huichol myth speaks of spines piercing the foot, each a different device, the action in both cases is the piercing of the foot.

Figure 6

The soul sits to remove the foreign object from its foot, complaining loudly for the other souls (ancestors) to come to its assistance. As the soul struggles to remove the spines, soul catcher tosses the rope with the sliding knot and captures the soul. The soul is bound, hand and foot, by soul catcher. The Tro-Cortesian shows this action (Sten 1975:98).

Figure 7

The Tro-Cortesian glyph shows a deer being bound by the hunter. The soul is linked to the deer in the Huichol myth.

The deer is symbolic of the soul in many areas of Meso-America. The Huichol myth suggest that this is the case among the Huichole. One indicator of this is the interest of Deer Person in the capture of the soul. Soul catcher derives his power from Deer Person, as does the shaman.

At the moment of capture the shaman assists the soul catcher by clouding the soul's vision so that it can not see its captor. The power to cloud the vision comes from Deer Person and Fire God.

Soul catcher also enlists the aid of a Black Wasp. (There are five wasps in all: red, blue, white, yellow and black.) The Black Wasp helps to lift

the bound soul. (There is in this action an association made between the plume or feather held by the shaman and the Black Wasp.) The wasp is symbolic of Venus and thus we have another link with this stellar object.

If the soul proves reluctant to return, even after being bound, the sun is consulted. The shaman informs the mourners of the capture and reluctance of the soul to return. The family must offer beer to the soul to coax it back. The corn beer is presented on the tip of the feather. The shaman then draws the soul back to the present with the plume.

The action of drawing the soul back is linked to drawing the sun back from solsticial extremes. During the southern and northern extremes of the sun's position on the horizon the sun seems to hesitate. Ceremonies were performed in some areas to 'magically' bring the sun back from these extremes. In the Chumash area in California the sun drawing equipment included a stick with a sun disc attached to it. In the Huichol myth the tree may substitute for the pole and the feather, each related to sun drawing themes in various places.

The soul returns to its relatives in the guise of a firefly. (The firefly symbolizes the night and stars among the Aztecs (Coe 1975). After the return it is freed and the body is buried in a cave. Later, the soul may become a quartz crystal (DeLaRosa 1976).

THE BIFURCATED ROAD

Of importance in the understanding of the elements in the Huichol cosmogeny is the place of the action, the locus of the road. Among many traditional Native Americans the bifurcated road was the Milky Way the road of the dead.

The sticks thrown by soul catcher may evoke the Milky Way as well as the constellation Little Sticks (Coe 1975). The sticks may stand for, Citlallicue, she of the Starry Skirt or the Milky Way (Coe 1975).

Modern Quiche Mayan beliefs may serve to clarify the location of the Huichol road. The Mayans note that the Milky Way appears to change position throughout the year. For this reason the Mayans have two names for the Milky Way, one for winter (Xibal Bey), and the other for summer (Sac Bey). The two roads in the Huichol myth may evoke a similar concept.

A second explanation is that the road stands for the paths of the sun and moon through the sky (Graulich 1981). This interpretation is suggested by the orientation of the road in the space-time continuum. The road not only 'turns' left and right, it also descends and ascends.

Orientations in space and time are tied to cultural concepts. Among the Quiche Mayans, for instance, right and left are signified by 'to the side' (k'e). K'e is also south and north (Remington 1975:77). In this system the observer orients himself with east at the base of the cosmos (Remington 1975). This would put the solsticial paths of the sun 'to the side' of the viewer.

This spatial orientation derives from horizonal astronomy used in the measurement of the seasons. In this system the position of an object as it passes over the horizon at dawn or at sunset is used to determine the passage of time.

Attention to the position of the sun

as it rises and sets tends to favor the importance of collateral, rather than cardinal points of the compass. The following sketch will serve to explain why this is so.

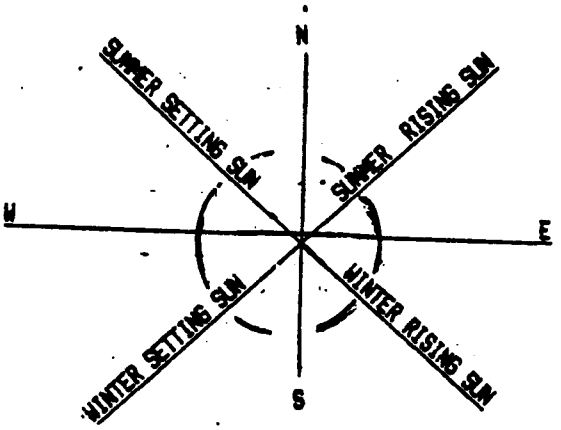


Figure 8

In this sketch I have represented the path of the sun, as it would seem to move through the sky with respect to an observer in the northern hemisphere. During the 'summer' the sun appears to rise northeast of the observer and set in the northwest. During the 'winter' the sun rises in the southeast and sets in the southwest.

In order to predict or follow the seasonal variations of the sun or other stellar bodies, one needs to mark the position of their passage over the horizon. Also needed are sighting mechanisms and a 'datum' point so that observations are made at the same spot throughout the year.

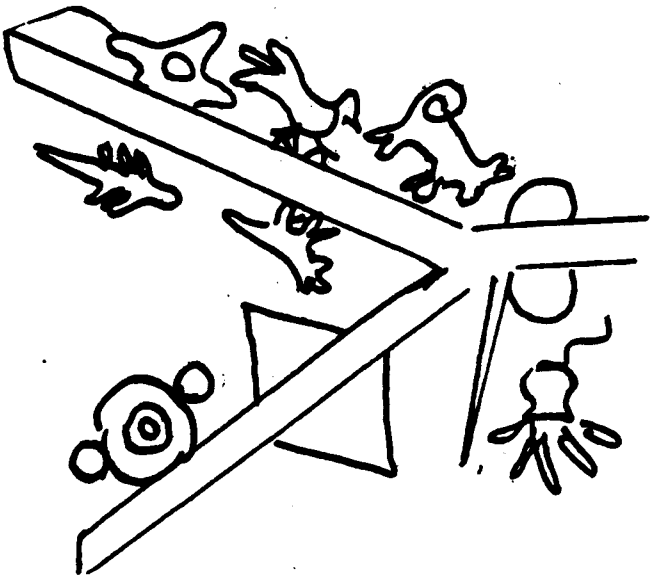
You can see from this sketch that passage over the horizon favors the importance of the east to west lines as well as the collateral directions. A system which uses the meridian, the imaginary sphere that cuts through the poles, would tend to place greater emphasis on the north to south line and thus the cardinal points of the compass.

In the meridian orientation the cross '+' took on mystical significance. In the horizonal orientation the figure 'X' will take on a mystical importance.

We have evidence that Mesoamerican calendrical systems did attach mystical properties to the 'X' or crossed-stick figure as this motif occurs over a wide area and is usually associated with astronomy. Such works as the Codex Fejervary-Mayer, the Codex Madrid (Tro-Cortesian) and the Chilam Balam of Kaua, all have an 'X' as a major design element. Often this 'X' is illustrated with a tree in its center.

The Huichol spatial orientation seems derived from the 'X'. A modern Huichol yarn design depicts the road as having the shape of a truncated 'Y' which I believe stands for half of the 'X'. (See Graulich's discussion of the mirror factor in mesoamerican cosmogeny (1981).)

Figure 9 shows this road as depicted in a yarn weaving (Palafox 1974).



The Huichol orientation seems to be along the east to west (celestial equator) line with his back to the rising sun. At the center of the universe, i.e., at the center of the 'X', one would see two legs of the 'X' extending into space to the west. These two 'legs' represent the northern and southern extremes of the setting sun's path. In Mesoamerica, the northern extreme equates to the rainy season. The path to the south, or the road to the left corresponds to the southern extreme or the dry season of the year. (This, with respect to an observer at the latitude of the Huichol.)

The adventures of the soul on the left-most road relate to sacrifices to the rain deities. Also indicated in the symbolism are corn and moon deities. There are clashing stones, crashing mountains, worms and polluted water. On the left most road the deer-soul 'dies' in a corral. Later it is sacrificed in the flames.

On the right most road the symbolism shifts to the offering of food. The symbolic sequence is: left - eaten, right - feeding, center - fed. On the right hand road and at the tree there is food available. The right hand road thus is linked to the rainy season, the time of the sun's northern extreme.

The cosmological orientation seems to be similar to that of the Quiche Mayans (Remington 1975). The most propitious pattern is the moon is in the southern extreme (on the sun's dry road), and the sun in its northern extreme or wet heaven.

ASTERISM AND SEASONS

There is ethnographic support that suggests the pre-contact Indians of Mesoamerica celebrated the solstices with sacrifices evocative of the soul's travel on the left most road. The festival of Panquetzal-istli, for instance, occurred at the time of the sun's sourthern extreme. During this festival victims representing the sun and moon were burned.

The Ochpaniztli, which included the kicking of the drum and the procession of phalluses, coincided with the beginning of the rainy season (May through October). In this festival sacrificial victims were pierced with arrows and thrown from the top of a pole. Graulich interprets this to mean that a sacred marriage had been performed. The body being tossed from the pole signified the impregnation of the earth. In another ritual connected with this festival a goddess gave birth to the corn god and Venus.

Another festival bearing a re-semblance to the Huichol myth, is "Fruit Falls' or Xocotl Huetzi (Graulish 1981:49). During this ritual a dead warrior is tossed from the top of the tree. Xocotl Huetzi seems to coincide with the Mesoamerican spring equinox (September). At the equinox the sun is half way in its travels. The tree, thus, is at the center of the universe.

The tree at the center makes good cosmological sense. What better position to locate an object capable of drawing the sun back from its extremes.

Ethnohistorical and archaeological evidence, however, suggests that the northern extreme of the sun is the locus of the chase. For instance, the mythological creatures evoked by the Huichol lengend are linked to circumpolar constellations. This is not so clearly seen in the Huichol

myth but other sources suggest that the scorpion, snake, deer, rope and probably opossum are sky figures.

One source of information is the Mayan version of the chase. The ritual of the Deer Ceremony is still being enacted among traditional Mayans. This ceremony takes place at the end of the year (Pohl 1983). In former times the festival coincided with the end of sacred cycles. The Deer ceremony is derived from the lengends of Tohil, or Storm god.

Tohil took the form of a deer and demanded blood sacrifices. The action associated with the Deer includes a chase of a deer or deer impersonator, the capture of the deer person and binding of the deer with five sacred knots. The deer or deer figure is secured at the base of a sacred tree brought from the forest for the purpose. This tree is erected in an enclosure (corral) (Phol & Phol 1983).

There is archaeological evidence that the deer impersonator was tortured. He was burned with a torch on the genitals and speared. The ritual was formerly held in a cave. Archaeological remains in the caves include miniature cooking and grinding implements, suggestive of the corn god connection in the Huichol myth, and stingray spines evocative of the pricking of the soul (Pohl 1983).

From the Chorti Maya area comes an archaeological find which links the deer with asterisms or stellar patterns (Aveni 1975). Found in a late site was a deer bone carving of the constellation Draco. The choice of material for the carving is more than fortuitous. The following figure is a sketch of the deer bone carving. (After an illustration by Joya Hairs (Aveni 1975).)

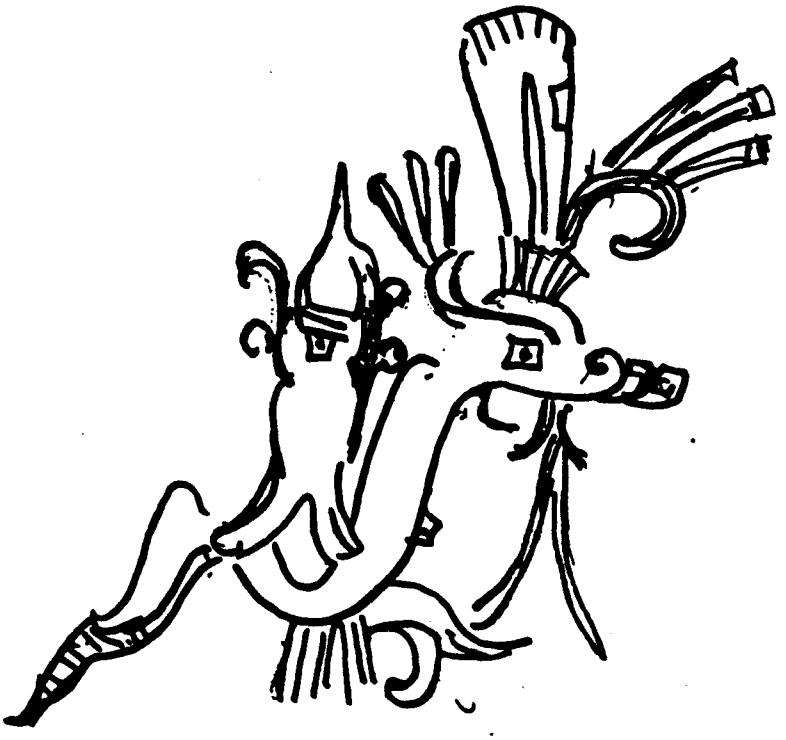


Figure 10 (After Aveni 1975)

Compare the outline of the serpent on the deer bone with the serpent biting the hunters foot in Figure 6. The serpents have a similar outline.

Figure 11

Norton's Star Atlas, as depicted in Mayer's article (1975:124), shows the Ursa Major region of the September sky. The elements of this constellation bear a striking resemblance to the deer bone carving.

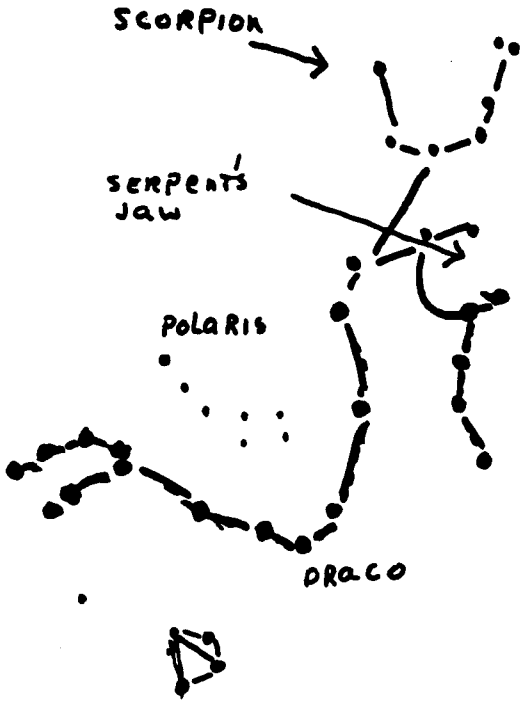


Figure 12

On the deer bone we have a serpent with a crest--a downturned comb or 'U'. The serpent seems to have a small figure (constellation) riding it. The small figure has upraised 'arms' and resembles a scorpion.

The serpent's tail forks from a rather square jaw, similar in outline to the right hand side of the Ursa Major figure. Below the Ursa Major asterisms is a small cluster of stars. These stars bear a resemblance to a pattern carved across the bottom of the deer bone (Aveni 1975).

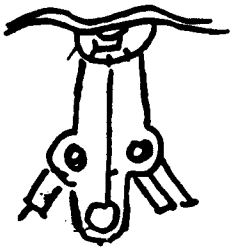


Figure 13 (After Aveni 1975)

It is very possible that more than one pattern was assigned to a particular section of the sky. After all, the 'dots' or stars can be connected in any number of ways depending on the imagination and mythology of a culture. The Tro-Cortesian section related to the Deer ceremony suggests that another pattern may have alternated with the serpent. In the Tro-Cortesian there is an illustration of the deer being snared by a scorpion creature. The scorpion is drawn with symbols indicating that it is a constellation. (Recall that our Huichol soul was threatened by a scorpion creature.) Coinciding with our chase in the Deer ceremony and the Huichol drama, the deer in the Tro-Cortesian is snared with a rope which is attached to its foot.

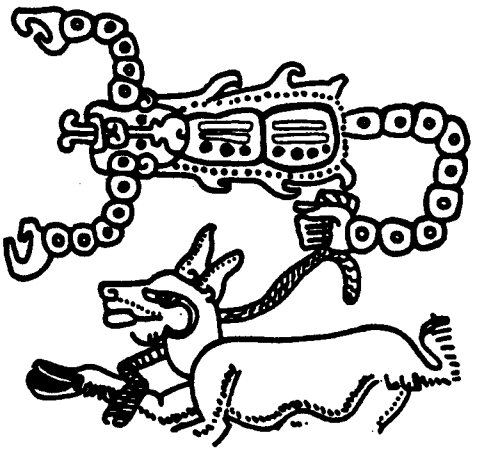


Figure 14

I have considered whether this scorpion depicts the constellation scorpio or virgo. The outline of virgo is quite similar (Mayer 1975).

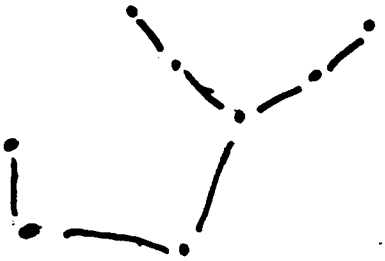


Figure 15

The scorpion in the Tro-Cortesian has a significant design element, its tail/claw is a hand. The hand grasps a rope, by the knot associated with the rope of soul catcher in the Huichol myth.

This scorpion could alternately be derived from the Ursa Major pattern (cf Figure 12). The right hand side of the group, with up-raised hands, suggests the scorpion, the mouth of the serpent converting easily to the claw of the scorpion's tail. The serpent's 'tongue' would convert to the rope which entangles the deer. We have already seen that there is a symbolic relationship between the foot and serpent. The foot and rope are also an important image. It appears we have a relationship between the rope and serpent as well.

Another glyph from the Tro-Cortesian shows 'deer person' being chased by death (soul catcher). 'Death' holds a flaming torch in its hand, evoking the torture of the impersonator in the Mayan area (Pohl & Pohl 1983). Beneath this deer person is an inverted 'U'. An inverted 'U' is shown above the serpent on the deer bone carving. (Cf figure 10.)

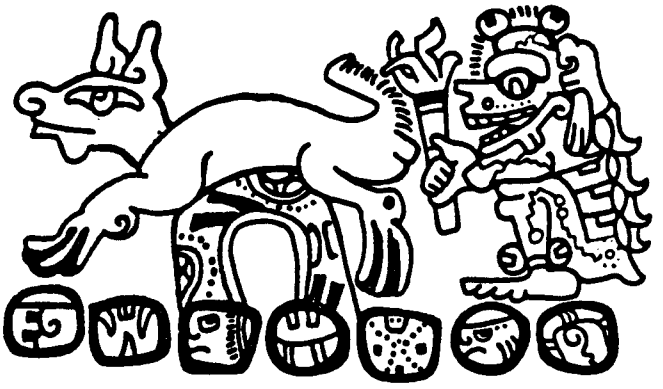


Figure 16

The 'U' is also an element in another glyph showing the capture of deer person at the foot of the tree (Sten 1975). In this case the 'U' is drawn with star symbols denoting that we are dealing with a constellation.

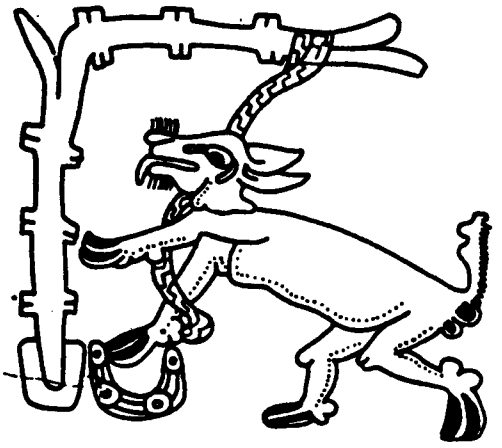


Figure 17

In figure 17 we have the deer person snared beneath the tree. The tree seems to reiterate the 'U' beneath the deer's foot so that I suspect it too represents a stellar

pattern. The deer has a rope attached to its foot so we are dealing with our chase sequence.

The 'U' could be the Corona Borealis. Every time we encounter this figure, however, it is drawn with four stars. This could mean that is represents the group below Draco. (Cf figure 12.) The group below Draco has four stars and although it can be made to match the deer bone carving (below right), it also forms a 'U' when viewed from another perspective.

Figure 18

An alternate source of the 'U' is the serpent's crest (cf Figure 10). The juxtaposition of the figures, serpent above the border, 'U' below the deer probably indicates the the 'U' is to be found below the major figure, however. We might also speculate that the 'U' has a connection with our pot or moon symbol. The 'U' in Figure 16 is down turned, the position of the pot in the rainy season.

Another illustration from the Tro-Cortesian depicts Deer Person crouched over the path. I think this pattern is a Mayan version of the Huichol roads. Note the womb-pot-wet season sign on the lower right hand curve of the 'road'.

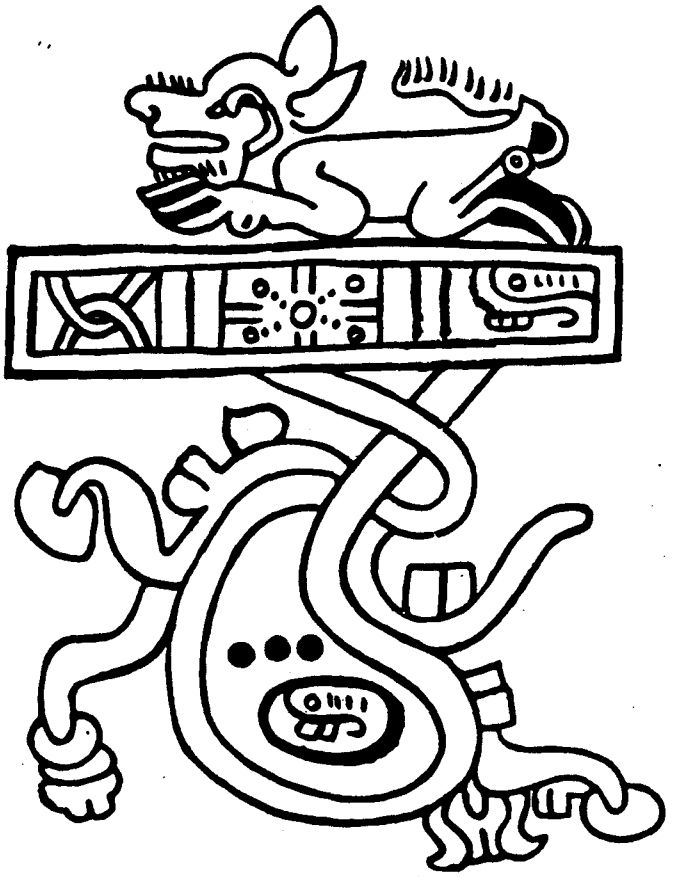


Figure 19

We have from various sources evidence that the 'chase' occurred in the sky; that the chase involved creatures whose outlines are to be found among northern constellations. We have evidence that the binding of the chased was of importance. There is evidence that the sun god in his various guises is involved in the chase and binding of the soul. The soul and deer can be substituted for the sun so that in actuality we are concerned with the binding of the sun or time. There is evidence that the period of the chase coincides with the sun's extremes and changing of seasons.

On the southern road or to the left, the Huichol soul experienced privation and torture. This road corresponds to the path of the sun during the dry season. Among the Mayans the death of the deer was a metaphor for drought. The deer was also related to 'winter'.

The prominence of Venus in the symbology also evokes images of the dry season. In the Codex Borgia, Venus the Wasp Star, spears the water goddess (Coe 1975). The appearance of Venus as the morning star every 584 days was linked to famine. At this time Venus threw a spear at water and maize (Ibid.).

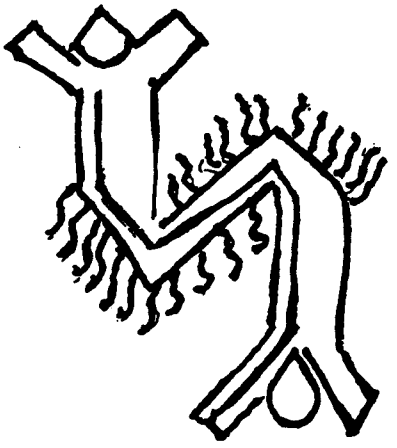
The moon is also implicated in the symbology. She travels in the rain god's heaven. In some areas she is shown quartered and 'bound' with ropes (Ordono 1978).

The deer-soul on another level is identified with plant and animal kingdoms. The soul consumes the fruit of the tree. It in turn is consumed in actions which link it to animal and plant flesh. As corn is roasted, spitted and eaten, so too is the soul. As the deer is trapped, spitted and roasted, so too the deer counterpart.

As the soul is trapped, bound and returned to its relatives in this plane, so too is the sun bound and returned to its motions on the horizon. The chasing and binding of the soul-deer becomes the chasing and binding of the sun.

In this symbolic system the bond between human, animal, plant and cosmos is given substance. The journey of the soul corresponds to the wanderings of celestial beings in heaven and on earth.

Figure 20 (Sten 1975)



Riles 1982

LETTERS TO THE EDITOR

In our July/August 1980 issue of the Winatun, we ran an article on Otto Sadovszky who claims to have discovered a link between California Indians and Siberia. In September of 1980, we received a letter from Kenneth W. Whistler, Smithsonian Fellow and expert in linguistics, challenging Sadovszky's findings. We believe Whistler's views merit attention. With that end in mind we have decided to print his letter in its entirety. In order to refresh the reader's memory, we have prefaced Whistler's letter with a reprint of the Sadovszky article from The Register.

INDIANS FROM SIBERIA

Otto Sadovszky said he knew through most of his 18 years of research that California Indians had Siberian origins. But, it was not until he had dug through cross-Reference dictionaries for almost every language recorded that he could document his theory. He linked California Indians with Siberia by finding what he calls "an amazing similarity" between the languages of an almost extinct northern California tribe, the Wintu, and ancient Uralic spoken in Siberia. Sadovszky's colleagues likened his theory to discovering gold. Linguistic specialists from all around the world now are bringing their educational tools to Sadovszky, pioneering the study of California Indian heritage. Before that, the California Indian origin was a mystery.

"You can trace most people's ancestry back thousands of years, but you couldn't do that with California Indians. All they could say was 'I am a California Indian.'" Sadovszky has shown the probable path from Siberia along the Pacific Ocean coast down to northern California. He said the Indians probably traveled by boat-- Sadovszky said he knows that boats were a form of transportation then because a word for boat existed in the language. Sadovszky said that while words from these two languages are not exactly the same, changes are predictable. "Languages change systematically. Words have a tendency to shorten, and masculine endings are often dropped." The similarity between the Spanish and English words padre, pader and father are an example, he said. The Cal State Fullerton professor emphasized the importance of these discoveries. "Only when you know where you come from, do you know where you are going." Sadovszky said he has learned of one Siberian woman alive who still speaks the branch of Uralic spoken by the Wintu, and hopes to bring her to northern California to talk to Wintu-speaking Indians. Although he said he believes it would be impossible for them to have a normal conversation, he said he can arrange a discussion by directing them to say certain words that are similar in both languages. Sadovszky said Soviet Union linguists also were working on the California Indian heritage. The Soviet Union linguists, however, said they believe the language is as much as 10,000 years old, rather than the 4,000 years he predicts, Sadovszky said. "Dating is a very tricky question. If they are right, which I doubt, we would have to revise our own dating method. It is funny,

when one discovery is made everything else goes topsy turvy."

WHISTLERS' RESPONSE

National Anthropological Archives
NHB-152
September 16, 1980

Dear Sirs:

In looking through your "Winatun Archaeology News" issue of July/August, I noted an item titled "Indians from Siberia" (p.4), reprinted from The Register. That item was so full of erroneous linguistic information that I feel I must point out some of the errors in order to set the record straight.

I have personally examined some of Otto Sadovszky's evidence for his claims of linguistic relation between the Wintu and "ancient Uralic spoken in Siberia." To be more exact, Vogul and other languages of the Ob-Ugric branch of the Uralic stock of languages; Vogual is (or was) spoken in the vicinity of the Ob River drainage on the eastern side of the Urals. As a specialist in Wintun historical linguistics I can say categorically that the evidence which Sadovszky adduces as support for that connection, while it does show a few interesting but probably coincidental lexical similarities, is not even close to being a sufficient and convincing systematic demonstration of the putative California to Siberia linguistic connection. Sadovszky relies on a dubious culling of apparently similar words from various dictionaries while ignoring all the systematic differences between Wintu and Vogul (and between the language families those languages belong to).

It is unclear to me who Sadovszky's "colleagues" are who "likened his theory to discovering gold." The professionally trained linguists who have been doing serious fieldwork and comparative historical work on California languages have long been aware of Sadovszky's "18 years of research", much of which has been dovoted to trying to show that Uralic languages (e.g. Finnish, Hungarian, and a number of Siberian languages) are related to the Penutian languages of California, Oregon, etc. The consensus among those linguists has been that again and again Sadovszky's work has shown a basic misunderstanding of historical linguistic principles and is full of grave methodological mistakes. Sadovszky's methodological inadequacies do not by themselves necessarily prove that Uralic and Penutian can't be related--maybe in fact all languages are related to each other ultimately. But his most recent claims of a special Wintu-Vogul connection have involved him in some absurd and contradictory historical linguistic claims which cast serious doubt on all of his conclusions. Hardly a gold strike!

Sadovszky's claim that one couldn't trace back the ancestry of California Indians thousands of years until he discovered his Siberian connection is just plain wrong. There is a growing convergence of

linguistic and archaeological evidence which suggests that the various Penutian families of California share a common origin in South Central Oregon at something more than 6000 years ago. Some of the Eurasian migrants into the Americas may well have moved by boats at early times, but it certainly wasn't the Wintuns or any of the other California Penutians from the Urals 4000 years ago.

Sadovszky's proposal to bring a Vogul woman to California to converse with the remaining Wintu speakers is the height of absurdity. Even if Sadovszky were correct about a 4000 year old connection (he isn't--and even the Soviet linguists' estimates of 10,000 years for a connection I consider to be grasping at straws), Sadovszky could expect less success than were he to sit down an American and a German untrained in foreign languages and told them to carry on a conversation using similar words they share, such as idiotische "idiotic" and Idee "idea". Try carrying on a conversation with a German sometime (or even better, a Dane, if you happen to know German)--it doesn't work without special training in the language, yet we know that German and English are languages related to each other less than 1500 years ago, and both share a more or less common culture.

Finally, regarding the Editor's note, I should point out that Penutian is not a language, but a vast historical construct subsuming many dozens of languages at least as diverse as English, Itelian, Greek, Russian and Hindi. Wintun refers to a small family of language, including Wintu and Patwin--which are distinct and as mutually unintelligible as English and German. Yokuts is another distinct family of languages, as different as, say, Spanish, French, Italian and Rumanian. It is misleading to call Yokuts, Costanoan, Miwok, Maidu or Wintu, "tribes"--they were actually each a collection of numerous small, politically independent tribelets speaking related but often mutually unintelligible languages. Concepts such as "Macro-Mayan" or "Macro-Penutian" receive no support from currently active historical linguistic specialists as far as I am aware.

Sincerely,
Kenneth W. Whistler
Smithsonian Fellow

EDITOR'S COMMENTS:

I agree with the imminent Whistler on the matter of the time depth in the development of California Indian languages. (After all, I am a believer in Calico!) That is precisely why I appended a note to the Sadovszky article, reminding the reader of the limitations of glottochronology and pointing out that Penutian must have developed prior to 10,000 years B.P. as it is related to languages spoken in Meso-America. At least, that is what I intended to convey.

In this comment I used a term the equivalent of Penutian-speaker. It would have been more correct to say that the Yokuts speak an off-shoot of Penutian. There is, however,

a precedent for the use of "Penutian-speaker". Heizer and Whipple, in The California Indians wrote of "Penutian-speaking tribes of central California (1973:138)."

In a similar arrangement, Pyles in The Origin and Development of the English Language combines Indo-European with speaking:

> Whether or not Indo-European has affinities with other languages spoken in prehistoric times and is hence a development of an even earlier language, no one is prepared to say with certainty...(80)...investigations indicated unmistakably that practically all of the languages of Europe (and hence of the Americas and other parts of the world colonized by Europeans) and some of Asia have in common certain characteristics of sound and structure and to some extent a stock of words which make it perfectly obvious that they have all developed out of a single language spoken in prehistoric times. This earlier language is usually called Indo-European. What it was called by those who spoke it we have no way of knowing, nor do we know what they called themselves. We shall here follow the usual practice of referring to them as the Indo-Europeans... (emphasis mine) (1971:81).

In this statement, Pyles suggests that there was a language, which we refer to as Indo-European, genetic to extant languages, and that it was "spoken" by people we call "Indo-European". Heizer and Whipple use a similar convention when they write of "Penutian-speakers". Indo-European is to Germanic, Celtic and Italic as Penutian is to Wintun, Yokuts and Maidu.

As for my use of the term "Macro-Mayan", this is after Eric Wolf in Sons of the Shaking Earth and Webster in the Encyclopedic Dictionary, both of which must be out of date with current linguistic usage.

As to my use of the word "tribe" in reference to California Indian groups, Whistler's point is well taken, "Tribe" is a developmental classification that has been withheld from the Yokuts and others on the basis of types of leadership and other criteria. "Triblet", however, is a diminutive and seems to connote factors of size and quantity rather than political characteristics. Yet, we seem to need a word that will convey the California situation without ambiguity. Perhaps we need a new word? Would quasi-tribe work? For a closer look at the problem of classifying California groups see Thomas F. King's, Don't That Beat the Band?

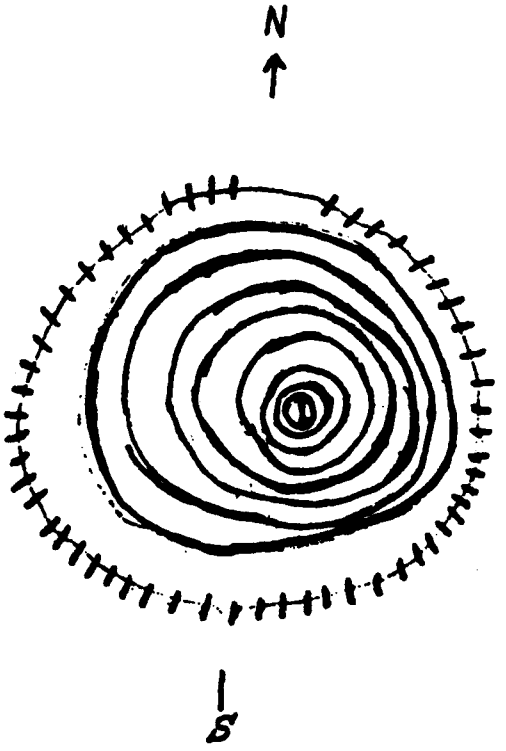
Sadovszky's ideas may seem a bit odd, but he is not alone in his eccentricities. Krantz (1978), for instance, also brings sea travel into an explanation for the disposition of North American language groups. Perhaps Krantz and Sadovszky should compare notes?

With all due respect to the linguists, linguistics is a "soft" science and not all agree about any one point. Commenting on the soft aspects is Fleisher in the Occasional Papers:

> Linguistic methodology and theory is the idol of the tribe of anthropologists and linguists. In the 1950s anthropologists borrowed the

idol to assist them in "objectifying" and making "more scientific" their subjectively laden discipline of cultural anthropology. Before long a cry for sanity was heard from a member of the tribe (Burling 1964) who asked whether anthropology's bastard son was "God's truth" or "hocus-pocus." Why do anthropologists persist in thinking that if they touch the idol they too will be holy? (1978:61)

(NOTE: All letters published by the Kern County Archaeological Society become property of KCAS)



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