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CALIFORNIA'S PREHISTORY AS A REMEMBERED PAST

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Numerous oral traditions are among the diverse sources of information available for reconstructing California's prehistory. These accounts were preserved by the prehistoric inhabitants' descendants and then documented by ethnographers, primarily during the late nineteenth and early twentieth centuries. For oral traditions to be used effectively in arriving at an understanding of factual events in the region's past, it is essential that the historicity of their content and their chronological range be critically evaluated. Empirical testing of the traditions' contents against independent evidence suggests that the traditions often preserved some elements of authentic information that extended back well beyond the narrators' own experiences, across several generations or even through several centuries. There is no credible support for claims that events or conditions as remote as a millennium or more in the past were remembered.

Early Native Californians' ideas about their prehistoric past are attested by a large and varied collection of orally-transmitted narratives and other traditions (Fig. 1).1 These texts have been approached in a variety of different ways. To some contemporary Native Americans, they are sacred texts that ought to be revered and believed. Other listeners or readers appreciate them as literature providing enjoyment and inspiration. For many anthropologists, folklorists, and psychologists, the narratives support scientific insights into the universal workings of the human imagination, or into the chasms in thought that separate one culture from another. The content of the narratives, even when it is viewed as substantially fictional, may offer to the ethnographer important clues concerning aboriginal lifeways and cultural attitudes. Patterns in the ways narrative elements were shared among different cultures provide evidence about prehistoric interactions and cultural change. Without denying the interest of any of these perspectives, the present study examines traditional narratives with a different objective in mind: to evaluate oral traditions as sources of factual information about the events that constituted the region's human prehistory.

Sweeping claims have sometimes been made for Native American historical memory, which has been proposed to extend back through many millennia (e.g., Laird 1984; Deloria 1995; Anyon et al. 1997; Echo-Hawk 2000). Some of these claims seem to have been rooted in a form of Native American religious fundamentalism that would confer infallibility upon the pronouncements of traditional elders. In a more secular vein, a motive seems to have been to assert native control over the ancestral past by denying or subordinating any sources of information, such as archaeology, that might challenge native views. At the other extreme are the skeptical arguments advanced by Robert H. Lowie (1917) and some functionalist anthropologists, sociologists, and historians. This latter view has asserted that oral traditions are so firmly rooted in the present that they lack any value as direct evidence about the past.

It is possible to test these competing claims against the internal evidence of the narratives themselves and against external archaeological and geological evidence, at least to a limited extent. Several general categories of information contained in oral traditions are suitable for such tests. These include chronologies, cultural change, events in the natural environment, and ethnic migrations.

HISTORICITY AND HISTORICAL INTEGRITY

Some observers have assumed that traditional narratives, particularly those imbued with a sacred character, were extremely stable throughout long periods of prehistory. For instance, C. Hart Merriam (1910:15) wrote that

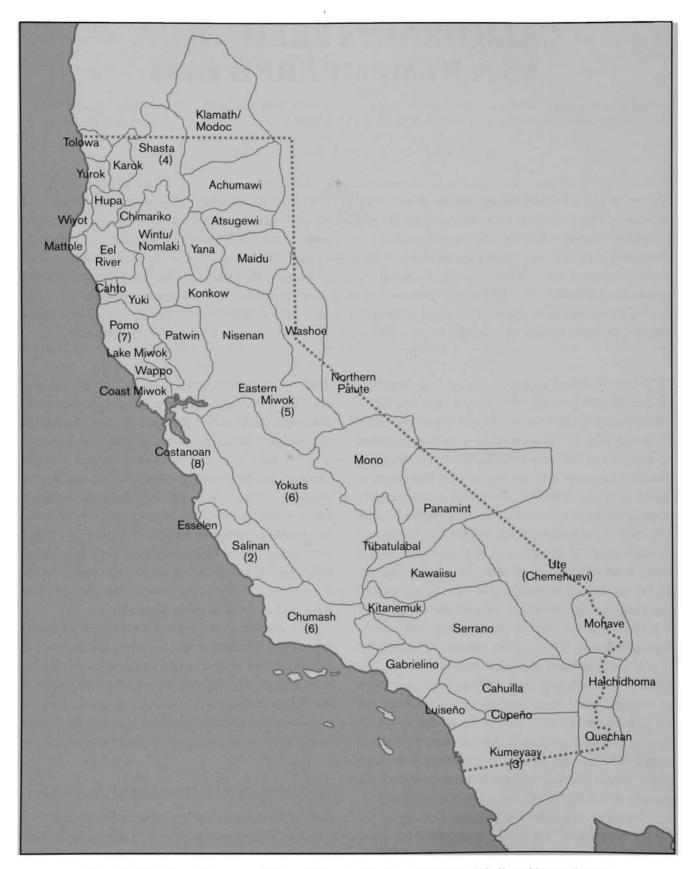


Figure 1. Ethnolinguistic groups of Native California. (Number of languages is indicated in paretheses.)

Miwok myths "from time immemorial have been handed down by word of mouth; from generation to generation they have been repeated, without loss and without addition." It remains to be seen whether Merriam's assumption about the stability of myths was warranted.

Among various nonliterate cultures around the world, there were marked differences in the stability of oral traditions and in factual knowledge about the past. Some cultures in Africa and Oceania preserved detailed and apparently fairly accurate orally transmitted information, such as political genealogies and migration stories, that reached back as far as several centuries. Other cultures had little to say about the past, described it exclusively in mythical rather than factual terms, or were extremely fluid in their accounts of it (Vansina 1985:24).

Variability in historicity among different cultures was not randomly distributed, but was conditioned by other aspects of culture. Probably the most important factor that promoted the preservation of factual information about the past was the presence of a specific social need or function for such information. In strongly hierarchical societies, genealogies and narratives recounting the deeds of ancestors served as charters that defined the statuses, roles, rights, and privileges of living individuals. Historical precedents had legal force. This social function of history created incentives for individuals and groups to try to protect the integrity of the transmitted traditions, although it also created incentives for them to falsify the traditions in their own favor when opportunities to do so arose.

In aboriginal California, heredity was frequently at least a factor in determining the succession to political leadership within communities. Lands and resources were sometimes owned by kin groups such as lineages or clans. However, these inheritance rights were generally only very weakly developed. If a lineage owned gathering rights to an oak grove, both those rights and the membership of specific individuals in lineages seem to have been accepted as common knowledge within the community, rather than as historical claims that might require validation by reference to an oral tradition. A man might succeed his father or his uncle as the leader of a community, but he did not have to appeal to the legendary deeds of his great-great-grandfather in order to justify his succession. This neglect of traditional narratives

as a means to validate individual rights of inheritance was reinforced by a cultural taboo observed in the majority of Native Californian cultures that inhibited the uttering of deceased persons' names.

The degree to which different Native American groups thought that the content of narratives ought to be stable also varied considerably. Alan Dundes (1964:23–24) commented upon the variability from one culture to another in the latitude that was allowed or encouraged in an individual narrator's retelling of a traditional tale. For instance, innovation or alteration of the narrative's elements was encouraged in the Southwestern pueblo communities of Zuñi and Isleta, but marked conservatism was reported for Tillamook and Eskimo narratives. Similar contrasts in attitudes toward innovation were present within aboriginal California.

One factor in favor of stability might be the presence of a supernatural sanction against any intentional innovation or accidental deviation in the reciting of a tradition. Rewards might accrue to letter-perfect performances, and manmade or supernatural punishments might result from mistakes (Vansina 1985:37, 41-42). There is some evidence of this for northwestern California. A Yuki narrator said that if he skipped any detail of a myth, he or his listeners would become ill (Gifford 1937:116). The Karok said that if a myth were not told in full, the narrator might become hunchbacked (i.e., doubled up with hunger) (Kroeber and Gifford 1980:108; cf. Luthin 2002:93). Karok formulas, which were narratives used as medicine to treat illnesses, to increase luck, or to win success in love, had to be recited without missing a word in order to be effective (Kroeber and Gifford 1980:263). "In northwestern California the relating of a myth verbatim, with the proper intonation and inflection of the voice, was believed to be of magical efficacy" (Gifford and Block 1930:43). However, such sanctions enforcing verbatim performance seem to have been rare in aboriginal California as a whole.

Another factor that might influence the stability of narratives was the manner in which they were transmitted from one generation to the next. Transmission might occur very informally, as listeners in the community repeatedly heard the performances of older narrators and effortlessly became familiar with them. Alternatively, the narratives might be formally taught, for instance to members of an age class who were undergoing adolescent

initiation (e.g., Loeb 1932:30, 34, 59, 67; Zigmond 1980:12), or selectively on a one-on-one basis by a master narrator instructing an apprentice. Presumably the more formal and structured learning was also more conservative in its content. In general, there is little ethnographic information about the processes by which traditions were passed between generations in aboriginal California. One early report indicated that certain Gabrielino boys were specially taught to memorize narratives word-for-word. However, the primary function of this training seems to have been to enable the boys to carry messages between the leaders of different communities, rather than to protect the integrity of oral traditions (Reid 1968:119).

The River Yumans present an unusual case relating to the manner of narrative transmission. In these cultures, it was believed that individuals usually acquired their knowledge of the events portrayed in traditional narratives through their own dreams, in particular by means of dreaming that had occurred while the dreamer was still a fetus in his mother's womb (Harrington 1908; Kroeber 1948:1-2). The dreamer was believed to travel back in time, often to the beginning of the world, and to witness in person the events that he would later narrate. This view might seem to imply extreme individuality in narrative authorship, but tendencies toward innovation were mitigated by several factors. Adult "remembrance" of the prenatal dreams was stimulated by hearing other people tell their own dreams about the same events. Critical listeners would comment about the correctness of dream accounts that were being narrated, and in this way they exerted pressure toward standardization. River Yuman oral traditions were also sometimes transmitted by the method of one individual directly teaching them to another, rather than through dreaming. On the whole, however, the idea that the past was directly experienced in dreams removed any cultural imperative for a careful, word-for-word repetition of received narratives, and it gave the skilled narrator considerable scope for correcting or elaborating his own version. It is probably not coincidental that Mohave myths show a relatively high rate of infiltration by references to post-contact cultural elements, such as wheat, chickens, and woven cloth, compared to other Native Californian narratives.

Another cultural feature that might contribute to the accurate preservation of information about the past was if oral performances of traditional narratives were tightly structured. This would have made either accidental or intentional innovations less likely. For instance, in verse epics the use of a rigid poetic meter or rhyme pattern, or looser patterns of alliteration and assonance, hindered change (Vansina 1985:14). Although the poetics of Native Californian narratives have been hidden in most translations (cf. Luthin 2002), these accounts do not seem to have been structured in ways that would have seriously inhibited innovation.

On the other hand, native songs often incorporated narrative elements. Such songs might be included as part of the recitation of a narrative, or they might stand separately in community performances of singing and dancing. Songs probably introduced a degree of literal conservatism (Vansina 1985:16), but that degree was not necessarily high. For instance, the Yumans made extensive use of songs within myths and other narratives, but substantial variability was reported in the songs that accompanied any given narrative (Kroeber 1948:2). Cahuilla myths might be told entirely in song, but considerable contemporary variation in the content of the songs was observed (Strong 1929:130). The references to the prehistoric past that were contained in songs tended to be too fragmentary and cryptic, considered by themselves, to seriously constrain any evolution in the understanding of the early events or situations that they described. Allusions could easily be reinterpreted within the structure of a new or substantially altered narrative. Songs were sometimes heard in dreams and subsequently performed by the dreamer. If such a song had a narrative content, innovation might thus be introduced into the content of a community's traditions, without its personal origin being recognized.

The use of foreign or archaic language in recitations of traditional narratives was reported from several California groups (Fig. 2). If archaic language in a narrative can be linguistically analyzed, it can serve to confirm conservatism (Vansina 1985:14–15). In the California cases, there has generally been no linguistic confirmation that such elements actually preserved language that was derived from either a long-past generation or a foreign group. These words may perhaps have been extreme examples of the ceremonial distortion of normal language that was attested in other contexts (e.g., Blackburn 1975:26). The Chemehuevi Salt Song was composed of Mohave words used in ways that were unintelligible

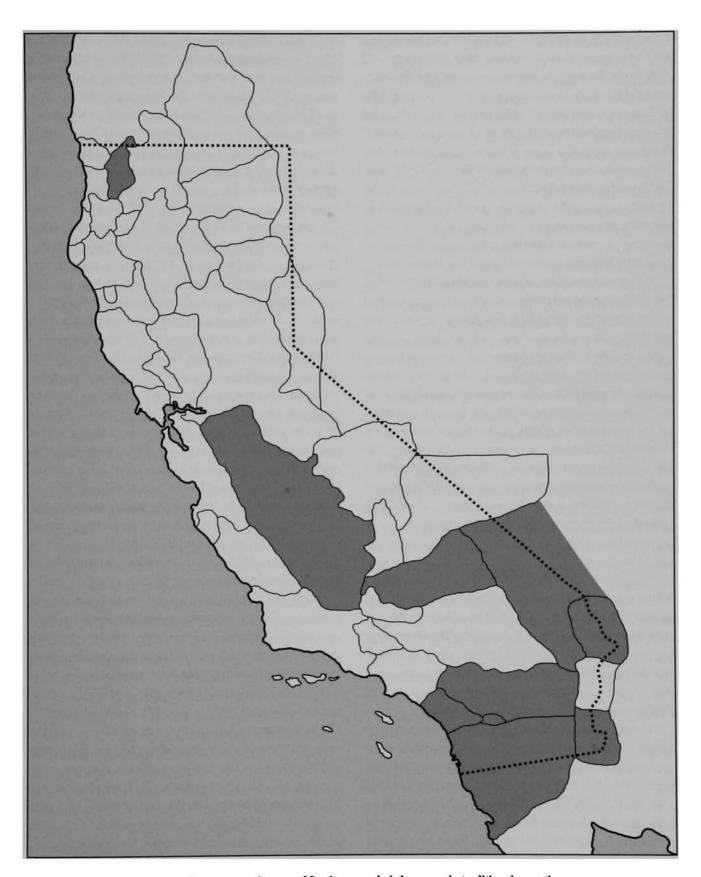


Figure 2. Groups reporting use of foreign or archaic language in traditional narratives.

to the Mohave (Laird 1976:16). On the one hand, such practices do point to a concern with word-for-word precision in the transmission of narratives, and therefore presumably also to a conservatism in their content. J. W. Hudson (1902:106) noted that Yokuts narrators who gave different renderings of the same myth used "archaic" words that were the same in the various versions that were recorded, although the words were untranslatable. On the other hand, because such foreign or archaic elements were usually unintelligible to both the narrators and their listeners, or at best to everyone except a few specialists in esoteric knowledge, they were likely to be ineffective in transmitting information about the past.

In sum, many of the factors that make for conservatism in traditional narratives, including strongly marked social inequality, inherited privileges, supernatural sanctions relating to the details of performance, and highly structured literary forms, were weak or lacking in aboriginal California. However, formal teaching and learning of narratives did sometimes occur. Frequent recitals on ceremonial occasions and for pure entertainment during winter nights made the narratives very familiar to the community members and to visitors. The circumstances of performance seem to have ensured that many oral narratives did have a substantially traditional character, although it did not give them immunity from gradual, and sometimes not so gradual, change.

CHRONOLOGIES

Some sort of chronological framework is almost indispensable for a detailed, factual knowledge of the past to be maintained (cf. Vansina 1985:173). The chronology may be either absolute, directly tying a particular event to a definite number of years before the present, or it may be only relative, placing an event as prior to, coeval with, or subsequent to other landmark events.

In various regions of the world, absolute chronologies have been maintained in a variety of ways. One method has been to keep counts of elapsed years subsequent to a reference point in the past, such as the legendary founding of Rome, the birth of Christ, the *hijra* of Muhammad, or, in the case of the classic Maya, an arbitrary point in an astronomical cycle. Another method has been to string together a sequence of year counts for the reigns of kings, consuls, or other leaders. These dating methods

were greatly facilitated by the use of written documents or at least inscriptions, but they might also be maintained orally. There is no evidence that prehistoric Californians ever made use of any such absolute chronologies.

Relative chronologies date events as occurring before, after, or contemporaneously with other events. Genealogies provided frameworks for relative chronologies in some nonliterate cultures and may extend as far as 30 generations (perhaps 750 years) back into the past (Vansina 1985:117). Long genealogies are not attested in Native California. However, many California traditional narratives contain implicit relative chronologies. At the early end of the time scale, myths² frequently linked their episodes to such early milestones as the successive events of creation that produced the world itself, solid land, animals, men, cultural norms, social institutions, and the various ethnolinguistic groups. At the opposite extreme of the time scale were the oral histories reporting events that had occurred when the narrators were young, and the oral narratives referring to events in the lifetimes of the narrators' parents or grandparents. Although these later chronologies generally fell within the historical era rather than in prehistory, it is likely that similar short-term relative chronologies were used by Native Californians prior to European contact. In between the mythic period at one extreme and the events that were either experienced at first hand or heard about directly from participants on the other, aboriginal Californians do not seem to have had any established reference points for relative chronologies. Oral history quickly turned into legend, and legend quickly became myth. For instance, Yuki and Nomlaki accounts of warfare between those two groups, some of which referred to events that must have been less than a century old, have been noted as being stylized and folkloristic rather than historical in their contents (Goldschmidt et al. 1939). The Yuki adoption of the Taikomol ceremony was mentioned as having occurred "two or three generations before the coming of the white man," but the story of its origins was set in a mythic context. "It would seem that the Huchnom [a Yuki subgroup] have projected a set of relatively recent events into the far legendary past; or, perhaps, to put the matter more accurately, that neither Yuki nor Huchnom discriminate clearly between a century or two ago and the time of the creation" (Kroeber 1925:207).

Within individual narratives, there also seems to have been little concern with chronology. The number of days that elapsed between the events of a story was often precisely specified, but years were rarely counted. Characters in myths often gestated and grew to maturity in miraculously short periods of time. A. L. Kroeber (1948:3) noted the "irrationalities or surrealisms of time" in Mohave narratives, and examples could be multiplied from many other California groups. However, the Mohave also provided one partial exception to this general disinterest in internal narrative chronology. A long Mohave account of travels and battles had an internal chronology that spanned at least 48 years and was usually (although not invariably) consistent and plausible (Kroeber 1951). Kroeber described the account as "pseudohistorical" because of its largely naturalistic content, and he observed that precise internal dating of this sort had not been reported from any other aboriginal group north of Mexico. It is uncertain whether the exceptional attention to internal chronology in this narrative was an aboriginal feature or an historical-period innovation by the narrator, perhaps under Western influence.

The recorded versions of Native Californian oral traditions rarely contain any allusions to longterm absolute chronologies, but there are occasional exceptions. In several instances, Stephen Powers (1976:35, 59-60, 144, 251) wrote phrases such as "a great many hundred snows ago," "many hundreds of years ago," and "a thousand years old," but it seems highly probable that these phrases were inserted by the recorder rather than being used by the native narrator. In a more elaborate and specific case, a Halchidhoma creation myth referred to the flooded condition of the earth at the time when the two Creators emerged from beneath the sea, and the narrator added parenthetically, "from that time, it will be four thousand years until the flood comes again" (Spier 1933:350). The specific number of years may have been inspired by Bishop Ussher's well-known biblical chronology of 4,000 years between the creation and the birth of Christ. The Halchidhoma narrative itself gives no indication that the narrator either knew or was interested in how much of this allotted 4,000-year span had already elapsed. It seems reasonable to regard the chronological reference as non-traditional.

A similar exception is provided by an Achumawi narrator, William Hulsey (Istet Woiche), who was

described by C. Hart Merriam (1928:ii) as "Speaker and Keeper of the Laws, History, and Chronology of his tribe." In the myths that Hulsey narrated, he referred in passing to a debate among the First People as having lasted for ten years (Merriam 1928:117), and on several occasions he referred to much longer stretches of mythic time. A mountain had stood in the location of a modern town "thousands of years ago" (Merriam 1928:27). An unknown second world had drifted around for 500 years (Merriam 1928:116). A culture hero, who put the sun, moon, and stars in the sky, boasted that "when what I have done becomes known, it will be a thousand generations from today.' (It is not yet a thousand generations.)" (Merriam 1928:99-100; the parenthetical comment is in the original). In all, according to this Achumawi consultant, between the start of creation and the transformation of the First People into animals and plants, the oddly precise figure of 11,600 years had elapsed (Merriam 1928:158). Such references to longterm chronologies, extremely rare in Native Californian narratives, can perhaps be attributed to post-contact influences emanating from the relatively time-obsessed Western culture.

The implications of this lack of absolute or relative chronological frameworks in aboriginal California have not always been fully appreciated. For example, in 1909, Walter C. Mendenhall asked some desert Cahuilla about the drying of Lake Cahuilla, the great freshwater lake that was remembered as having once filled their valley. "When questioned as to the date of this event they state that it occurred as long ago as the lives of four or five very old men, say three or four centuries ago at most" (Mendenhall 1909:683-685). Archaeological evidence now puts the lake's final recession in the late 1600s, about 250 years before Mendenhall's time (Laylander 1997). This agrees reasonably well with Mendenhall's estimate, but the Cahuilla consultants' reference to "the lives of four or five very old men" was ambiguous. It might have referred to the lengths in years of exceptionally long lifespans, or to the number of steps in a sequence of transmissions by which the report about the lake had passed from elders to young men. In any case, it is unlikely that the phrase had any very specific meaning for the aboriginal Cahuilla. In the absence of a system of absolute chronology or any memorized chains of narrative transmission, it is not clear how the Cahuilla would have decided when to stop referring to the elapsed time as having been the lives of three or four very old men, and start measuring it by the lifetimes of four or five very old men. It seems probable that this degree of chronological precision was more or less forced upon the Cahuilla consultants by their Western interrogator, and that the proper interpretation of the Cahuilla response would have been not "three or four centuries ago at most" but merely "far back beyond living memory, but not as far back as the time of creation."

In sum, the evidence suggests that Native Californians usually distinguished sequences of events occurring within mythic time that were associated with the events of creation, as well as sequences of events taking place during the narrators' own lifetimes or a generation or two prior to that. For events lying between those two extremes, no system for remembering duration or sequence seems to have been maintained, presumably because none was considered to be necessary for any practical purpose.

CULTURAL CHANGE

A key issue in evaluating the historicity of Native Californian cultures is whether the aboriginal lifeways that were depicted in oral traditions were limited to those of the most recent, ethnographically documented portion of prehistory, or whether the traditions also preserved an awareness of a more remote past. A century ago, Merriam came at the issue from the opposite direction. Taking it as a given that the narratives were extremely conservative, and noting that the culture reflected in Miwok narratives matched ethnographic patterns, he argued that this correspondence proved the extreme conservatism of other aspects of Miwok culture:

The repeated mention in the mythologies of certain objects and practices (such as the ceremonial roundhouse, the use of the stone mortar and pestle for grinding acorns, the use of baskets for cooking, the use of the bow and arrow and sling in hunting, the practice of gambling by means of the hand-game, and many others) proves that these objects and observances are not of recent introduction but were among the early possessions and practices of the Mewan tribes [Merriam 1910:22].

Subsequently, archaeological evidence has been able to demonstrate that the prehistoric cultures of California underwent greater changes than Merriam had envisioned in their subsistence strategies (for instance, in maritime, acorn, and pine nut specializations), in technology (such as projectile types and milling equipment), and in social organization (including community size, mobility, and gender roles) (cf. Chartkoff and Chartkoff 1984; Moratto 1984; Fagan 2003). Rather than indicating extreme conservatism in general culture, Merriam's examples can now be seen as pointing up a degree of fluidity in the content of Miwok narratives, which had been invented or adapted to reflect changing lifeways.

Given the reality of prehistoric cultural change, narratives potentially contain two types of elements that bear on the historicity of the cultures that created and transmitted them: archaisms and anachronisms. If traditional narratives were highly stable and transmitted essentially intact from generation to generation, then archaisms, or obsolete cultural patterns, should appear in the descriptions of mythic and legendary events. Even if the specific content of traditional narratives was fluid, archaisms might still be included if the transmitters of oral tradition were aware of such past changes and wanted to avoid putting anachronisms into their accounts of earlier times. On the other hand, if both the traditions were fluid and the narrators' historical consciousness was limited, the most remote past would be likely to be portrayed anachronistically, in the garb of the present or a very recent past.

This perspective on the problem of historicity is similar to one that has been applied to the analysis of the Homeric epics of early Greece. The centuries between the period of the Trojan War and the time when the *Iliad* and the *Odyssey* were written down spanned the transition in metallurgy from bronze to iron, the extinction of the Mycenaean city-states during the Greek Dark Ages, and the local disappearance of chariot warfare. The Homeric poems preserved some archaic elements, while they anachronistically distorted or overlooked others. This mixed pattern may have arisen from both a certain degree of narrative conservatism and some awareness of cultural change.

Unfortunately, in contrast to Greece during the Bronze and Iron Ages, California's prehistoric past offers relatively few solidly documented cultural mileposts that lend themselves to use in testing the historicity of oral traditions. Some prehistoric changes, such as alterations in social organization, may be reflected in narratives, but they are difficult to document and date archaeologically. Others, such as shifts in shell bead types or projectile point styles, are highly visible archaeologically but were not likely to be mentioned in oral narratives. However, there are a few cases that are suitable for such tests. Cultural changes that occurred comparatively late in prehistory, that can be documented archaeologically, and that are reflected in the content of traditional narratives include the adoption of new burial practices, the bow and arrow, pottery-making, and agriculture.

Burial Practices

In some respects, funeral practices seem to offer a promising basis for assessing conservatism or innovation in Native Californian traditional narratives. This aspect of prehistoric behavior is highly visible archaeologically. In traditional narratives, references to funerals were common, and the basic contrast between cremation and inhumation is readily distinguished, although more detailed aspects that may be well documented archaeologically, such as burial posture, orientation, and grave accompaniments, were usually not specified in the narratives. Ethnographically, the geographical pattern in the distribution of inhumation and cremation within California was complex. Different practices often crosscut linguistic families and even groups of dialects within a single language community. This ethnographic pattern strongly suggests that burial practices continued to change during very late phases of prehistory, and therefore that superceded patterns might well have been remembered in oral traditions.

Unfortunately, there are several serious weaknesses in the evidence of funerary customs as a test for archaism or anachronism in traditional narratives. The ethnographic record is silent or unclear concerning the funeral practices of several California groups. Many of the groups followed mixed funeral practices, with the choice in a particular case depending upon such factors as the status of the deceased individual and the circumstances and location of his or her death (Gould 1963). For instance, several northern California groups normally practiced inhumation but would cremate someone who died far from home, so that the remains could be carried back more conveniently. Archaeologically, the sequences of local changes in funeral customs are often not well

documented or dated, in part because of recent taboos against such studies. It is possible that multiple shifts back and forth between inhumation and cremation may have occurred through time. For example, hypothetically, references to cremation in the myths of a group that had recently changed from inhumation to cremation might reflect a rapid, anachronistic adaptation of the myths' contents to later circumstances, or it might be an archaism that recalled a still earlier period when cremation had been practiced, prior to the adoption of the recently abandoned practice of inhumation (cf. Kroeber 1925:317; Powers 1976:340-341). A contrast between ethnographically attested funeral practices and the local archaeological evidence might reflect prehistoric change within a culture, but alternatively it might reflect the intrusion of a new group of people into the region, with the intruders themselves being conservative in their funeral customs. Moreover, because of the complex geographic mosaic that intermixed cremation and inhumation throughout most of California, most groups must have been aware of alternative contemporary funerary practices. Therefore, references to inhumation in the myths of a group that practiced cremation might merely have incorporated the practices of a neighboring group in order to indicate the exotic or bizarre nature of burial practices during the mythic period, without preserving any memory of actual changes through time within the narrators' own cultural traditions.

The best test case for conservatism in narrative content with respect to burial practices would be provided by a region of the state that was relatively uniform in its ethnographically documented burial pattern and in which there were only two successive prehistoric burial patterns: an older practice attested archaeologically, and a later, contrasting practice documented both ethnographically and archaeologically. There should also be evidence for continuity between the culture of the ethnographic narrators and the earlier local culture that had used the contrasting burial pattern. The case in which these conditions come closest to being met is provided by the Luiseño and Kumeyaay of coastal southern California. These groups practiced cremation prior to the mission period, whereas inhumation was the pattern of an earlier culture in the same region, known archaeologically as the Encinitas Tradition or La Jolla Complex (Warren 1968). The dating of the change from inhumation to cremation is somewhat uncertain; it may have occurred as early as about 500 B.C. (Moriarty 1966:23), or it may have come several centuries later. The shift was not absolutely complete; rarely, late-period inhumations are also documented. An unresolved problem is whether there was cultural continuity between the Encinitas Tradition and the Luiseño or the Kumeyaay. In any case, Luiseño and Kumeyaay myths project the practice of cremation back to earliest, mythic times (e.g., DuBois 1901:184, 1904a:185). No historical consciousness of a superceded pattern of inhumation seems to have been preserved, if such was the practice of these groups' cultural forebears. Indeed, one narrator among the neighboring Cahuilla not only projected cremation back to earliest mythic times but also believed that the replacement of cremation by inhumation among the Cahuilla had occurred in early prehistory, rather than under Spanish influence beginning in the late eighteenth or early nineteenth century (Patencio 1971:27-28).

A second test for burial custom archaism in oral traditions comes from the central Sierra Nevada foothills. Numerous cave burials have been documented archaeologically and assigned to the period between 1,000 B.C. and A.D. 500 (Moratto 1984:305). The historic Miwok inhabitants of this region were aware of the presence of human remains in the caves, but they attributed the burials to a race of man-eating giants (Merriam 1910:232). The Miwok themselves practiced cremation and rejected with horror any suggestion that their own ancestors might ever have practiced cave burial. Evidently either the people of the cave burials were not culturally ancestral to the Miwok, or else the earlier burial practice had been forgotten during the ensuing 1,400 years.

Bow and Arrow

A more effective test of the historicity of traditional narratives is provided by the bow and arrow. This new technology was introduced throughout California during the late prehistoric period, after around A.D. 500. Myths make frequent reference to the use of weapons in hunting, warfare, or individual violence. Consequently, these narratives' treatment of the subject is a good test of conservatism or awareness of historical change, at least on a time scale of about 1,400 years.

References to the use of the bow and arrow are abundant in narratives that were set in the earliest, mythic period, and they are found in the traditions of nearly every ethnolinguistic group in the state. Some myths specifically refer to the creation of the bow and arrow by a mythic person (e.g., Harrington 1908:336; Gifford 1917:302–305; Kroeber and Gifford 1980:10, 73–74, 147–148), but in most myths the immemorial presence of the technology is simply taken for granted. There are no clear references to superceded projectile technologies, such as the atlatl and dart.

Possible archaisms might be sought in myths that describe hunting or conflict but either deny the presence of the bow and arrow or fail to mention them. For instance, one Washoe legend told of a battle between the Washoe and a race of giants who had no bows. James F. Downs (1966:62) suggested that the giants might represent a pre-Washoe culture in the region. However, at best this account provides only problematic evidence for a consciousness of a time before the bow and arrow were prevalent. Evidently traditional narratives were sufficiently fluid in their content to incorporate this shift during the last 1,400 years, and no historical memory of the replacement of an earlier technology was preserved.

Pottery

Ceramic vessels were another relatively late technological innovation, although they were less widely adopted within California than was the bow and arrow. Subregions where pottery was made included southernmost and southeastern parts of the state, the eastern Sierra, the western foothills of the southern Sierra, and the middle Klamath River (Kroeber 1925:822; Mack 1990). Pottery was most extensively made and used in the area lying between the lower Colorado River and the Pacific Coast. It has generally been supposed that ceramic technology diffused from the American Southwest or northwestern Mexico to the Colorado River sometime around A.D. 400 and that the technology was only reaching its western limits at the time of mission contact (A.D. 1769), although there are some recent archaeological hints of an earlier, middle Holocene ceramic industry in southern California (e.g., Porcasi 1998). Yuman, Takic, and Chemehuevi narratives all incorporated anachronistic references to pottery into their accounts of the mythic period (e.g., DuBois 1904a:185, 1904b:218, 237, 241, 1906:156, 158–159, 163; Patencio 1943:116; Devereux 1948:242; Kroeber 1948:5–6, 9, 12–13, 15, 53, 63; Seiler 1970:54; Laird 1984:105, 158–159).

References to ceramic containers have not been found in the myths of other groups that had adopted pottery later or made less extensive use of it. However, traditional narratives had fewer occasions to refer to containers of any kind than to funerary customs or the use of the bow and arrow, and the absence of any references to pottery in a local body of narratives does not carry much weight as a possible archaism. The alternative technologies that had preceded ceramics, such as basketry, animal skin containers, gourds, and stone bowls, continued to be used after their partial replacement by pottery, and therefore references in the narratives to these containers cannot be considered archaisms.

Agriculture

Prehistoric agriculture was also adopted late in time and within an even more limited geographical range. It was solidly established among the River Yumans, and was probably present to some extent among some Salton Basin groups, including the Imperial Valley Kumeyaay and possibly the Cahuilla. Irrigation and cultivation of native plants seems to have been practiced prehistorically by the eastern Mono, but in that instance there was no distinctive complex of nonnative crop plants, such as the corn, beans, and squash that were cultivated by the Yumans, which would make it much more difficult to distinguish any agricultural references in eastern Mono myths.

Among the agricultural groups, hunting, fishing, and gathering continued to be important, and therefore references to these practices cannot be considered archaisms. Because the adoption of cultivated crops involved fairly fundamental cultural changes, at least for the River Yumans, an absence of any references to agriculture in myths might arguably be an archaism. However, in fact such references are common. Anachronistic references to agriculture and agricultural crops are frequent in Mohave, Halchidhoma, Quechan, Kumeyaay, and Cahuilla narratives set in the mythic period (e.g., Bourke 1889:179; DuBois 1906:155, 158, 163; Curtis 1907–30(2):75; Harrington 1908:332, 340; Strong 1929:142; Gifford 1931:80; Patencio 1943:25, 108–109, 115;

Kroeber 1948:4–8, 15–16, 30, 63). The Chemehuevi, who apparently had become agriculturalists more recently than the River Yumans, were reported to have had "absolutely no tribal memory of a time when they had not...planted wheat," an Old World crop (Laird 1976:23). Agricultural anachronisms indicate either a recent origin for the myths or a high level of fluidity in their content, as well as little consciousness of cultural change.

Mortars

The manufacture and use of mortars provides another possible chronological marker, although one that is problematical. Intensive use of mortars and pestles in aboriginal California has commonly been linked to acorn processing, which seems to have begun or at least greatly intensified in many parts of California after ca. 2,500 B.C. However, ethnographic evidence attests that mortars were used to process a considerable range of other floral, faunal, and mineral resources. Archaeological evidence suggests that mortar use may have begun long before the late period (Jones 1996), and references to mortars in myths cannot be assumed to be late anachronisms.

If there was a late prehistoric florescence of mortar use, this may imply that many of the mortars used during the latest period were manufactured during that same period. Despite this, oral traditions of many California groups reported that their mortars had been made by mythic figures or members of a long-ago race, or that they were purely natural features (Fig. 3). Such beliefs may reflect conditions prevailing during the ethnohistoric period, with its displacements and drastic decrease in population, when it was no longer necessary to make new mortars. This suggests a fairly shallow memory of actual late prehistoric practices.

Rock Art

In several parts of California, native peoples denied knowing the origins of the rock art that was present in their regions, or else they attributed its creation to the mythic period or to supernatural agents (e.g., Gifford and Kroeber 1937:145, 186; Stewart 1941:418; Voegelin 1942:95) (Fig. 4). In some cases, the rock art may have been created by other ethnic groups who were subsequently displaced by the ancestors of the historic inhabitants. In other instances, the professed ignorance concerning rock art may have been an attempt to deflect

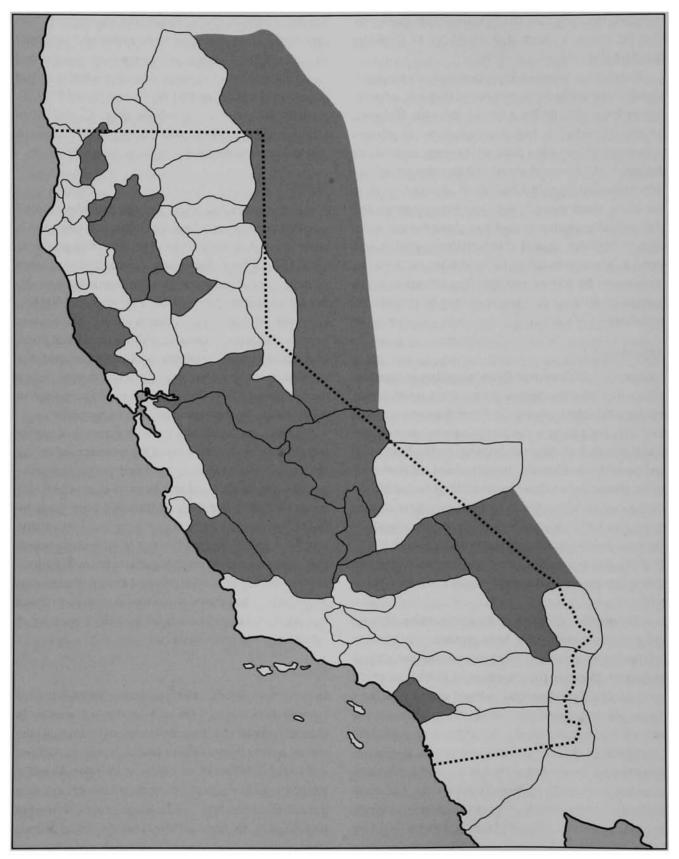


Figure 3. Groups reporting exotic origin of mortars.

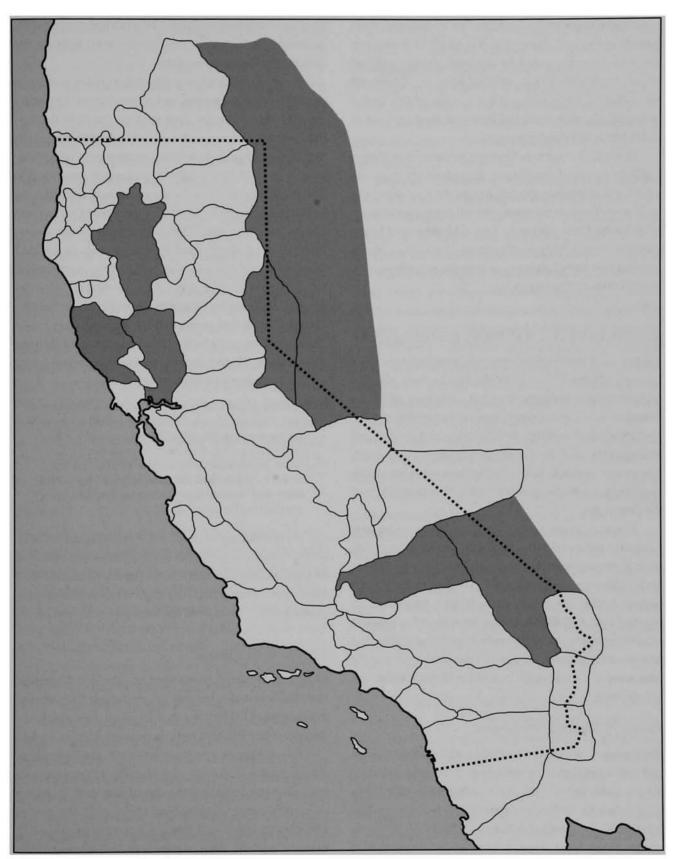


Figure 4. Groups reporting exotic origin of rock art.

unwelcome inquiries by outsiders into matters that were considered sacred. However, it is likely that some of the rock art was created by the local groups' cultural antecedents and that its origins were genuinely not remembered. Unfortunately for the use of this test of historicity, the archaeological dating of most rock art in California is still highly uncertain.

In sum, the cultures that are portrayed in Native California's oral traditions, including its creation myths, are essentially the cultures of the final period of prehistory. There is no persuasive evidence that lifeways prior to the latest centuries were remembered. On the contrary, there is fairly good evidence that earlier cultural patterns had been forgotten, at least for periods prior to about 1,000–1,500 years ago.

CHANGES IN THE NATURAL ENVIRONMENT

Undeniably, prehistoric societies and cultures were strongly affected by natural changes in their physical or biological environments. Oral traditions offered a potential tool for keeping alive an awareness of both past patterns of environmental change and the cultural strategies that had been developed for coping with them. The extent to which Native Californians made use of this tool may say something about their general awareness of the distant past.

For a reference in an oral tradition to be persuasively matched with an actual prehistoric event, several prerequisites must be met. The event must have been distinctive in character and probably of a type that occurred relatively infrequently. It must be well documented and well dated within the region's geological or archaeological record. Finally, it must have occurred across a sufficiently brief span of time, so that the people who were living through it could recognize what was taking place.

Frequently Recurring Phenomena

Earthquakes, droughts, tornados, severe storms, floods, and major wildfires were important events for prehistoric Native Californians, and these phenomena were often mentioned in traditional narratives. However, they recurred so frequently that they were likely to have been known as first-hand experiences by a large proportion of elderly individuals. References in oral traditions to such

common occurrences cannot be matched with specific prehistoric events, and they cannot shed light on the depths of collective memories.

Some accounts of recurring events seem to refer to particularly extreme cases, and it may be tempting to try to match them with the most extreme events of the type that are known geologically or archaeologically from the late Holocene period. Arguing against such interpretations is the fact that a cultural pattern of exaggeration was regularly manifested in the narratives' references to environmental events. A very common motif was a flood that covered the entire earth, or perhaps drowned everything except a single local mountain peak. In another frequent motif, the sun was said to have approached the earth and set everything afire, nearly destroying the world. Comments by Francisco Patencio, a Palm Springs Cahuilla, on natural events that had supposedly occurred during his infancy, which would have been in the late 1850s, reflected both a pattern of exaggeration and a very shallow time depth for historical memory:

But one time (I was very small, I could not remember yet), there came such earthquakes as had not been known to any of the people. Whole mountains split—some rose up where there had been none before. Other peaks went down, and never came up again. It was a terrible time. The mountains that the people knew well were strange places that they had never seen before [Patencio 1943:58].

Such accounts as these may have ultimately been rooted in actual experiences of particular floods, wildfires, or earthquakes, but there is no reason to assume that the original events inspiring them were necessarily the greatest ones known from the local geological record.

Changes in the Climate

Some other types of events were repeated less frequently and also had major impacts on prehistoric Californians, yet because of the time scales over which they took place, they were not likely to have impressed themselves into people's memories. The transition from the Pleistocene Epoch to the Holocene provides several instances of such changes, including the rise of sea level by scores of meters, major geographical shifts or extinctions in Pleistocene fauna and flora, the retreat of mountain glaciers, and the disappearance of large desert lakes. Prehistoric Californians were present to witness at least

some of these events, but the changes may have occurred so gradually, over generations, that they were not perceived as events by the people who lived during them. In any case, the remoteness in time of the Pleistocene-Holocene transition makes it highly improbable that any oral records would have survived, even if they had been formulated in the first place.

Distance in time is not as much of a problem in the case of the Medieval Climatic Anomaly, a period of markedly higher temperatures that has been dated between about A.D. 800 and 1350, and the subsequent cooling of the Little Ice Age. Makoto Kowta (2001) proposed that these climatic changes were mirrored in certain Maidu myths. However, as in the case of the Pleistocene-Holocene transition, it is questionable whether the climatic changes involved in the onset of the Medieval Climatic Anomaly or its termination in the beginning of the Little Ice Ace occurred rapidly enough to have been perceived as distinct events by contemporaries. The phenomena portrayed in the Maidu oral traditions, in particular drought, recurred so frequently on a smaller scale that attempting to identify an account of extreme drought with this particular event is not persuasive, given the pervasive tendency to exaggeration in California mythologies.

Tsunamis

Major tsunamis, or seismic sea waves, are recurrent but relatively infrequent events near the tectonically active western coast of North America. A geological study at Bradley Lake in southern Oregon has suggested that tsunami surges reaching at least 5–8 m. above sea level have struck the coast on the average about once every 390 years (Kelsey et al. 2005). After a hiatus of 650–750 years, one such event on January 26, 1700, was recorded in Japan and also left geologically recognized deposits of sand on the northern California coast.

Tsunamis would have been noteworthy for prehistoric coastal populations. Remembering them in oral traditions might also have had a practical value. Individuals who would have had no knowledge of tsunamis from their own experiences or from those of their parents or grandparents might have been alerted by traditions to the warning signs of an impending tsunami, in particular an abnormal recession of the sea several minutes prior to the arrival of the inundating waves. During the great 2004 Indian

Ocean tsunami, a 10-year-old English girl on a beach in Thailand is credited with having saved hundreds of lives by recognizing the signs of an approaching tsunami based on what she had learned in a geography class (Owen 2005). Members of some Indian Ocean ethnic groups were reported to have escaped serious harm from the 2004 tsunami thanks to their traditional knowledge of its warning signs (Holland 2005).

Apparent references to tsunamis have been recorded in the oral traditions of groups living on the northwestern coast of North America, including northernmost California (McMillan and Hutchinson 2002). Some of the stories are not distinguishable from more generalized and widespread mythic flood accounts, and many of them contain a strong element of exaggeration. Even if the phenomenon of the tsunami were clearly attested, it would be difficult to link an oral tradition with a specific event, such as the A.D. 1700 tsunami, unless the tradition mentioned a particular location where datable physical evidence of the tsunami was present. However, some of the traditions seem to testify at least to a memory of the generic phenomenon of tsunamis.

A tsunami story told in 1929 by a Tolowa woman from California referred to events set in Brookings, in the southwestern corner of Oregon (DuBois 1932). According to this account, the inundation happened at a time when there were no white people on earth, and the survivors of the tsunami returned to repopulate the earth. If the account was ultimately based on factual experience of the A.D. 1700 tsunami, its conversion from factual tradition to myth was already well advanced after two centuries. In the Tolowa story, the survivors were given a verbal warning to flee, so the narrative contained no practical information about natural tsunami warning signs.

Volcanic Eruptions

Major volcanic eruptions happen infrequently enough and are sufficiently well-defined geographically that accounts of them in traditional narratives might plausibly be matched with actual events. They are also dramatic in character and important in their consequences, making them suitable subjects to have been included in narratives (Powers 1976:272–273). Holocene volcanism is attested geologically in several parts of California (Fig. 5). By one count, nine eruptions have been documented in Mono County alone within the last 2,000 years (Mone and

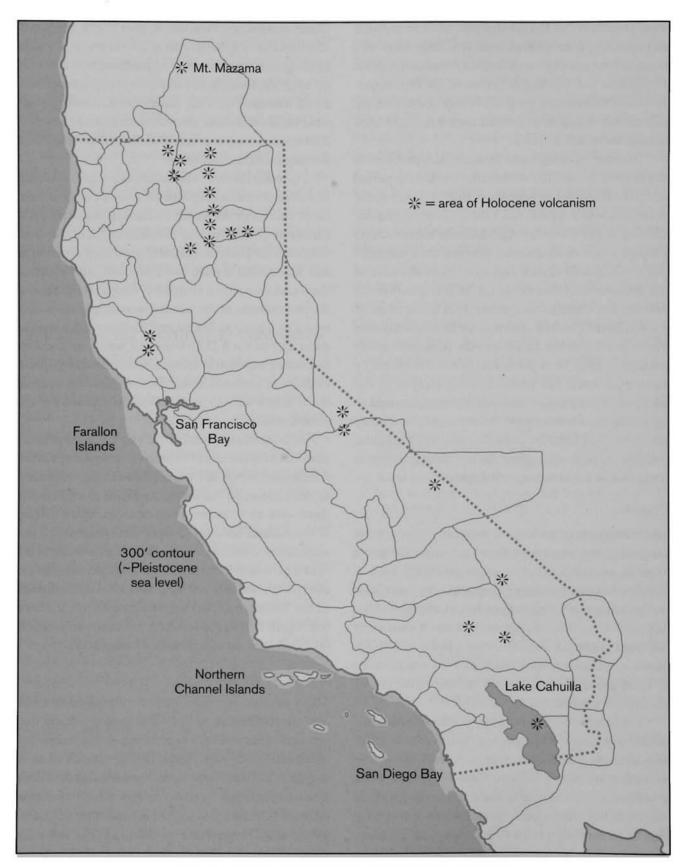


Figure 5. Locations relating to changes in the natural environment.

Adams 1988:21). However, no persuasive matches have been made between specific eruptions in prehistoric California and references to volcanism in traditional narratives (cf. Sutton 1993:122).

In southern Oregon, the catastrophic eruption and collapse of Mount Mazama around 5,700 B.C. resulted in the formation of Crater Lake within its caldera. This event provides a unique test because of the unparalleled magnitude of the eruption and its distinctive consequences in the creation of the lake. Various Modoc-Klamath traditions refer to Crater Lake and its mountain. Both popular and scholarly writers have suggested that these accounts may have been based on information that had been passed down orally from witnesses to the actual eruption (e.g., Clark 1963; Vitaliano 1973; Greene 1984; Deloria 1995; Harris 2000). The primary narrative cited in support of this interpretation, a myth that was recorded in 1892, contained three elements that matched geological interpretations of Crater Lake: there was a volcanic eruption, the crater formed in part by collapse, and the lake was produced by subsequent rainwater (Clark 1953:54–55). However, volcanic eruptions in the Cascade Range occur on the average of about once a century, and the basic phenomenon of eruptions would have been familiar to the region's inhabitants. It would not be surprising for Modoc-Klamath traditions to have inferred the volcanic origin of this feature without any orally transmitted testimony from contemporary witnesses. Myths routinely offered accounts to explain the origins of geological features that long predated any possible human witnesses. Moreover, other Modoc-Klamath myths assigned a different origin to Crater Lake or took for granted its presence since earliest mythic times (e.g., Wood 1929:97-99; Barker 1963:70-75). There is no persuasive evidence that the Mount Mazama eruption was remembered rather than merely inferred.

Coastlines

The rise of sea level as Pleistocene glaciers melted was a dramatic event when seen from a geological perspective, and it had important human consequences, but it probably would not have been perceptible on the time-scale of an individual human life. The changes were largely complete by about 6,000 years ago. Nonetheless, some analysts have attempted to discern distant memories of this event

in traditional California narratives. Florence C. Shipek (1986:4) cited the Kumeyaay creation myth, also shared by the Quechan and Halchidhoma, according to which two mythic creator-brothers emerged upward through primeval waters. In Shipek's view, this was a memory of the post-Pleistocene rise in sea level. Aside from other objections to this interpretation, the match between the content of the myth and the characteristics of the geological event seems to be farfetched.

Another set of legends attributed the origin of San Francisco Bay to a great earthquake that opened the Golden Gate and flooded an existing freshwater lake. Several Patwin and Costanoan versions were collected after the middle of the nineteenth century (Bancroft 1886:88-89; Powers 1976:448). Kevin Starr (1990:45) assumed that these accounts were based on factual memories and used them as evidence for dating the presumed geological event: "In prehistoric times a geological catastrophe, most likely a major earthquake, caused the littoral to subside massively. There survived in local Indian memory a recollection of this event through folklore, thereby dating it to within the last 30,000 years. As the plain collapsed, the sea rushed in to form the present San Francisco Bay" (Starr 1990:45). There is no geological confirmation for the occurrence of such a catastrophe. The actual flooding of the bay was caused by the gradual rise of sea level during the early Holocene, rather than by an earthquake, and it was evidently not remembered in oral traditions. Some myths treated the bay as a primeval feature (e.g., Merriam 1910:67). San Diego Bay was similarly created by rising sea level between about 8,000 and 4,000 B.C. (Masters 1988). Kumeyaay traditions treated the bay as a feature that was already in existence during earliest, mythic times (DuBois 1904c:102).

As well as flooding new embayments, the rising Holocene sea created distinctive geographical features by isolating new islands. The Farallon Islands had been joined to the San Francisco mainland until about 9,000 B. C. The northern Channel Islands (San Miguel, Santa Rosa, Santa Cruz, and Anacapa islands) had not been attached to the mainland during the Pleistocene, but they had formed a single large island within the period of human occupation, until after about 9,000–7,600 B.C. (Porcasi et al. 1999). No traditional narratives recording the origins of these islands have been documented.

The silence on the subject is not surprising, given the great time depths involved.

Rivers and Lakes

Some myths addressed the origins of particular inland water features. For example, Shipek (1986:6) discussed a Kumeyaay story of two brothers who were the Cuyamaca Mountains in eastern San Diego County. The brothers quarreled over the betrothal of Cold Water, a woman who was a spring, to Sweet Water (i.e., the Sweetwater River). As a result of the fighting, one of the brothers (Corte Madera Mountain, southwest of the Cuyamacas) moved away from the other brother. Shipek interpreted this story as a memory of a prehistoric episode of geological faulting and stream capture through headward erosion, by which the Sweetwater River, which has its source in the Cuyamacas, was diverted into its present course north of Corte Madera. In this instance, not only is the match between the contents of the myth and the event very dubious, but there is no confirmation that the supposed geological event ever happened.

A Northern Paiute myth told of a time when the water in Mono Lake was fresh rather than saline (Steward 1936:429). According to geological evidence, the last time when the freshwater Lake Russell occupied the Mono Basin was during the late Pleistocene, when glacial runoff was sufficient to fill the basin and cause it to overflow into the Owens River system. It is likely that this was well beyond the range of memory in oral tradition. The Northern Paiute myth also told how fish had migrated through various Great Basin lakes before they finally settled in Lake Tahoe, and the story appears to have been invented to account for the absence of fish in the saline lakes.

One particularly valuable test of the historicity of the region's aboriginal cultures is provided by Lake Cahuilla in southern California (Wilke 1978; Laylander 2004). Under natural conditions, the Colorado River periodically shifted its course within its delta. At times, instead of flowing directly south into the Gulf of California, it emptied northward into the Salton Basin, filling Imperial and Coachella valleys with a great freshwater lake, up to 180 km. long and 50 km. wide. The lake has been estimated to have taken about two decades to fill and at least six decades to dry up again once the river redirected its course away from the

basin (Laylander 1997:50-51). There were a minimum of three full stands of the lake during the last 1,000 years, in addition to several earlier stands that are still poorly known (Love and Dahdul 2002). The most recent stand ended in the late seventeenth century. In the late nineteenth and early twentieth centuries, Cahuilla and Kumeyaay oral traditions told of the lake's rise and fall, as well as the native use of its fish, shellfish, and waterfowl. These accounts mixed credible information about the lake with clearly distorted or mythicized elements, indicating that the events, which had taken place 200-300 years before the traditions were documented, lay close to the borderland between factual history and myth within these cultures.

Trees

Even some very recent features in the natural environment, such as particular trees, were occasionally incorporated into myths. In northwestern California, a fallen redwood tree that was lodged in the crotch of a neighboring tree, probably less than a century earlier, was incorporated into a local Hupa (Chilula) myth that interpreted the tree as the walking stick of the culture hero Yimantuwingyai (Gifford and Block 1930:19-22). Another tree in the same region was believed by the Yurok to be one of the First People (Curtin 1898:xxi); if the Yurok tree was a coastal redwood, it may have been as old as 1,000 years. Among the Lake Miwok, a specific blue oak tree was believed to have been growing at its present location since the mythic period (Merriam 1910:140). These references attest to the fluidity of myths' contents and to an absence of detailed historical memories.

In sum, the physical environment that was described in Native California's oral traditions, like the cultural context, was essentially that of the latest prehistoric period. Such natural phenomena as floods, wildfires, earthquakes, droughts, tsunamis, and volcanic eruptions were recognized in the region's myths, but very few references to these phenomena were concrete enough to be linked to specific events in the prehistoric past. Relatively recent occurrences, such as the rise and fall of Lake Cahuilla during the A.D. 1600s and perhaps the tsunami of A.D. 1700, were remembered, but they had already begun to be seen through a haze of mythic exaggeration.

ETHNIC MIGRATIONS

No aspect of oral traditions has held greater interest for its potential contribution to prehistory than references to ethnic migrations. Early European observers during the eighteenth and nineteenth centuries noted native peoples' migration traditions and took them seriously as evidence concerning the ultimate origins of the native peoples they encountered (e.g., Boscana 1933; Geiger 1976). This credence arose in part from the observers' belief in the relatively short Judeo-Christian chronology for the post-diluvial world and the consequently late settlement of the Americas. Given those assumptions, why should not the recent initial occupation of California be remembered in native traditions? Modern archaeological evidence that human occupation in California extended back more than 12,000 years makes any oral preservation of evidence about the first arrivals much less plausible. However, the possibility remains that later ethnic movements into or within California might have been remembered.

Kroeber (1905:90, 1951:107) noted that traditional narratives in the northwestern and central portions of the state lacked "historical or pseudo-historical" accounts of migrations. The primeval presence of ethnic groups in their present homelands and the absence of any migrations was commonly implied, and occasionally it was explicitly asserted (e.g., Powers 1976:394–375). There were a few exceptions. One was a Tolowa account that told, plausibly, of the group's migration from the north in canoes (Powers 1976:69). A Yurok tale reported migration from the northwest (Powers 1976:62). Eastern Miwok said that their ancestors had moved from the west to the Sierra Nevada region long ago (Clark 1904:64).

In contrast to the scarcity of migration legends in northern and central California, they were fairly common in southern California. To evaluate whether these accounts contained authentic remembrances of actual ethnic shifts, the narratives might be tested against linguistic evidence concerning the directions of prehistoric population movements. However, this test is not entirely satisfactory. Although language is a fundamental index of culture, patterns in the spread of languages may not always have matched patterns in the spread of other aspects of culture or of lines of biological descent. Because oral traditions' references to migrations

do not fix them chronologically, it might be possible to associate a tradition with a linguistic movement that dated from almost any period of prehistory. The linguistic evidence itself is often ambiguous concerning the probable direction of movement implied by an episode of separation or expansion. At best, the available linguistic evidence usually points to the probable general direction in which a language community expanded, without ruling out more complex patterns that may have included both forward and retrograde movements.

The creation myths of several Yuman groups, including the Kumeyaay, Mohave, Halchi dhoma, and Quechan, said that the first humans had migrated from Avikwamé, a mountain most frequently identified with Newberry Mountain in southern Nevada, near the northern extreme of ethnographic Yuman territory. Linguistic evidence has been variously interpreted as suggesting a north-to-south expansion of the Yumans, which might correspond to the primordial migration of the myth, or a south-to-north expansion out of northern Baja California (Laylander 1993; Mixco 2006).

In Mohave narratives, accounts of travels were rich in geographical details. However, these described the travels of individuals or clans, not of entire nations or of individuals who were clearly identified as the nations' forebears. Except for a frequent north-to-south trend and links to Avikwamé near the northern limit of ethnohistoric Mohave territory, the accounts do not seem to have been patterned as to geographical direction or chronological sequence. They can be interpreted as reflecting an awareness of the phenomenon of prehistoric ethnic migration, but not as recognizable factual memories of specific migrations.

A Kumeyaay version of the Yuman creation myth told of a migration westward from the lower Colorado River (DuBois 1907). Also mentioned as stops on the journey were Warner's Ranch, Elsinore, and Temecula, locations to the north of ethnographic Kumeyaay territory. There is archaeological support for a late prehistoric westward spread of pottery-making into Kumeyaay territory, which has been suggested as marking an ethnic movement (Rogers 1945), but the diffusion of ceramics rather than migration might have been just as likely.

Luiseño migration stories generally played out on a narrower geographical stage. Locations variously associated with the origins of the first people included Puvunga, possibly in Long Beach; Lake Elsinore and Temecula, in southeastern Riverside County; and Bonsall, in northern San Diego County (DuBois 1908:157; Boscana 1933:83–85). From a point of original dispersal to their ultimate homes, the various Luiseño kin groups were said to have traveled along different routes that were remembered by their descendants a century ago (DuBois 1908:158–159; Strong 1929:284–285).

The Cahuilla of the Colorado Desert also had complex migration stories concerning clan ancestors (Strong 1929:86–87, 100–102). Patencio (1943, 1971) suggested that there were two phases of prehistoric migration by his ancestors. A primeval migration of all Indians from the cold, snowy north was succeeded by a more localized eastward migration of Cahuilla ancestors from coastal Southern California into the Coachella Valley (cf. Strong 1929:100-101). Both scenarios are plausible. With respect to the first migration, in other contexts Patencio showed an interest in demonstrating a concordance between scientific views and Cahuilla traditional knowledge, and it is not unlikely that his belief in a northern origin was strongly influenced by the prevailing scientific view of Native American origins in the Bering Straits area.

Two other Takic groups, the Cupeño and the Serrano, had myths pointing to a primordial migration from the north (Gifford 1918:183, 199). A Cupeño story about a wonder-working hero, Kisily Pewik, who reconquered his father's homeland at Cupa, has been interpreted as reflecting a migration of a group of Cahuilla who became the Cupeño after traveling south from Soboba about 800–1,000 years ago (Hill and Nolasquez 1973:i; cf. Gifford 1918:200–201; Strong 1929:270–273). However, there is little in the narrative to suggest this particular interpretation, and no independent evidence confirming the hypothesized migration.

Mark Q. Sutton (1993) analyzed possible reflections of the Numic expansion throughout the Great Basin in myths and other oral traditions. He found a general tendency for Numic narratives to suggest movements toward the north or east, consistent with the Lamb Hypothesis that Numic speakers spread out in other directions from eastern California during the last 1,000 years. However, the evidence is not uniform; for instance, a Panamint tradition suggested that Shoshone speakers

had migrated into California from the east, contrary to the general anthropological interpretation (Steward 1936:434).

One very late migration was the movement of the Chemehuevi group of Ute/Southern Paiute speakers from the eastern Mojave Desert to both banks of the Colorado River in an area formerly occupied by the Halchidhoma during the early nineteenth century. Carobeth Laird (1984:106) thought that the foggy setting of a Chemehuevi myth, so untypical of that group's desert homeland, might indicate that the narrative "has survived in racial memory throughout millennia of southward migration," but this is dubious. Also according to Laird (1976:7), the Chemehuevi had lived in well-established settlements on both sides of the Colorado River "as far back as tribal memory extended."

A form of negative evidence about memories of ethnic migrations is provided by references to local places that were incorporated into Native Californian myths. Many of these accounts referred to specific geographic features, such as mountains, rivers, or settlements, that were located within or near the ethnographically documented territories of the narrators. Some groups, such as the Yurok, Karok, and Mohave, put great emphasis on the inclusion of local references in their myths, while such references are less common in the myths of some other groups, but nearly every group in the state incorporated at least some local place references into its myths. Evidently most Native Californian groups had lived in their historic locations since what was truly, for them, time immemorial. However, linguistic and archaeological evidence suggests that ethnic expansions and displacements were numerous throughout the course of California's prehistory (e.g., Moratto 1984; Foster 1996). Local references were also incorporated into versions of myths belonging to types that were widely shared throughout Native North America, such as Earth Diver, Theft of Fire, and Orpheus, confirming that the geographical contents of these myths had been modified as they were adopted by new cultures.

Similarly, Native Californian myths contained references to neighboring ethnolinguistic groups, although these were mentioned less frequently than places. For example, one Hupa myth referred specifically to the Shasta, Karok, Yurok, Tolowa, and Eel River Athapaskans (Goddard 1904:129). The

Shasta, Karok, and Yurok all spoke non-Athapaskan languages, and they would presumably have been unknown to the ancestors of the Hupa before the latter entered northwestern California. One estimate has put that entry as recently as A.D. 1300 (Foster 1996:75). Such references indicate that the migrations bringing Native Californian groups to their historic locations were generally not remembered. Narratives that refer to interactions with ethnic groups remote from the narrators' present locations might attest to past migrations (Vansina 1985:15), but no clear cases of this are found in Native Californian oral traditions.

In sum, most of the groups in Native California do not seem to have been conscious of prehistoric migrations. The traditional narratives of some groups, particularly in the south, did show an awareness of the phenomenon of ethnic migration, although that awareness usually coexisted with the placement of their world's earliest beginnings at or near the sites of their historic homes. The directions of migration that were suggested by some narratives are entirely plausible, but detailed, substantive, and factual information does not appear to have been preserved about even the most recent ethnic shifts or expansions.

CONCLUSIONS

The traditional narratives of Native California have not escaped from some historic-period influences. These influences can be seen in the inclusion within myths of casual references to Old World human races, crops such as wheat, animals such as horses, and technologies such as metallurgy, as well as in occasional borrowing of entire narrative themes from Old World folklore (e.g., Blackburn 1975:302-329). However, these recent interpolations are uncommon. On the whole, California's myths and legends present a substantially credible picture of pre-contact lifeways, including material culture, social institutions, and value systems, although, not surprisingly, those traits were sometimes exaggerated or distorted for literary effect. Received from late nineteenth and early twentieth century narrators, the traditions attest to cultural memories that had been preserved across several generations.

However, as a record of periods prior to prehistory's final centuries, oral tradition has little to offer. Events as

recent as the final filling and recession of Lake Cahuilla in the seventeenth century were remembered, but they had already begun to be shrouded in a fog of myth. Memories of earlier changes in cultural practices and technologies, the natural environment, and the geographical distributions of native groups were not preserved. Given the relative ahistoricity of aboriginal California, those who seek factual information about the earlier centuries and millennia of the region's prehistoric past will have to turn to other sources of information.

NOTES

¹ Unquestionably, the picture of Native California's oral literature that is available to us in the recorded body of traditions is incomplete. Extensive recording was undertaken only a century after the missions had begun to deplete native cultures. New narratives continue to be published, and traditions continue to be passed along and to evolve within some of the surviving native cultures. The present discussion is based primarily on narratives that were published during the late nineteenth and early twentieth centuries, because these are the most accessible sources and have been less subject to historical-period distortions and biases than subsequent versions. Imperfect as they are when considered as a record of patterns of thought and knowledge in late prehistoric California, they are the best record we have, or are likely to get.

²Genres of oral narratives have been defined in a variety of different ways, both by native groups and by folklorists. The most widely recognized distinction is between myths, legends, and folktales (Bascom 1965). Myths are generally defined as stories that were sacred, that were believed to be true, and that were set in the remote past before the world had assumed its present form. Legends were stories about a less remote past; they were also believed to be true but were not necessarily considered sacred. Folktales might be set in either the remote or recent past, were not sacred, and often were not considered to be true, but might be merely entertaining. There is potential importance to the distinctions between sacred and profane narratives and between ones that were believed by their narrators and listeners to be true and ones that were considered fictional. However, reliable information about these attributes is lacking for most recorded Native Californian traditional narratives. In some California groups, myths were not considered sacred (e.g., for the Achumawi, see Leeds-Hurwitz 2004:205; for the Tolowa, see DuBois 1932:261). In general, different genres of traditional narratives do not seem to have been strongly distinguished. More accessible and useful for the present analyses is a chronological distinction between the oral traditions that were set in the mythic epoch, when the world was still just taking shape and when, in most of the cultures, animals were people, and narratives that were set in the subsequent, more familiar legendary epoch.

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