THE EVOLUTION OF THE "BARBAREÑO" CHUMASH

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ABSTRACT

During the last 3500 years or so, the Chumash Indians of southern California developed many of the cultural characteristics that have led anthropologists to classify them as one of the most complex hunter-gatherer societies in history. In recent years, much attention has focused on the Middle-to-Late Period transition (ca. A.D. 1150-1300) as crucial to the evolution of this complexity. I believe the development of Chumash complexity was a long process, the foundations of which were laid much earlier in time. In examining this premise, I focus on Late Holocene archaeological records for the Santa Barbara mainland coast, where Chumash population densities and complexity reached their zenith.

About 3500 years ago, a remarkable ceremony took place at a village cemetery at Rincon, a prominent point located between the modern cities of Santa Barbara and Ventura. Here, two young men, probably warriors killed in battle judging from their wounds, were buried with a wealth of goods. According to William Harrison (1964), who excavated portions of this cemetery at CA-SBA-119, the flexed bodies of the men were liberally dusted with red ochre, and surrounded with baskets, stone bowls, atlatls, flake tools, abalone pendants, deer legs, and utilized beach stones. Along with these artifacts, one of the men was also buried with two pebbles encircled with asphalt bands, a grooved stone, a glob of asphaltum with two rows of inset shark teeth, a bird bone tube, a large bone bodkin or point, a stone disk with asphalt around the edge, sandals, and a turtle shell. The second man also had four bone awls (one with an ochre-painted asphalt handle), a dart point, a palette, a quartz crystal, two cakes of red ochre, four eagle claws, two abalone dishes, a bone scraper, a turtle shell containing two cores and 67 whole Olivella shells, and another turtle shell containing four fish gorges and five phalanges from a large bird wing. Also found in the general area was an Olivella grooved rectangle (OGR) bead, a distinctive southern bead type and the only one of its kind known from the Santa Barbara Channel area (see Howard and Raab 1993; Vellanoweth 1995; Jenkins and Erlandson 1996).

What is remarkable about CA-SBA-119 is its antiquity, dating to the very end of the Middle Holocene and the beginning of the Late Holocene, between about 3300 to 3700 RYBP (Table 1); its elaboration of material culture and ritual behavior; its evidence for warfare; the context of these associations; and some of the things not found in the cemetery. The context of the finds is a Milling Stone assemblage in which manos and metates outnumber mortars and pestles 10 to 1. Yet, as Harrison (1964:346) recognized, other aspects of the assemblage, from the flexed burials to the elaborate and finely crafted grave offerings, seem typically Canaliño (or Chumash). What is missing from the assemblage is any evidence for intensified maritime subsistence, no circular shell fishhooks or other specialized marine hunting technology and relatively few fish or sea mammal bones despite Harrison's 1/8-inch screening of the excavated deposits. Yet it is often assumed that the elaborated Canaliño pattern is inextricably linked to intensive maritime adaptations. Harrison's discoveries at CA-SBA-119, it seems to me, indicate a relatively great antiquity for some of the foundations of Chumash culture. They also suggest that the economic underpinnings of the high population densities and cultural complexity of California's coastal societies were not strictly maritime, but were based on the high diversity and productivity of both marine and terrestrial resources (see Landberg 1965).

CULTURAL COMPLEXITY AND THE CANALIÑO CONCEPT

The concept of a Canaliño culture was developed by David Banks Rogers (1929) to refer to the relatively elaborate maritime peoples who occupied the Santa Barbara Channel region at the time of European contact and the millennia just prior to contact. The term was widely used by local archaeologists until the 1960s (e.g., Orr 1943, 1952; Harrison 1964), when it was gradually replaced by use of the term Chumash or a more detailed chronology developed by Chester King (1981, 1990). Over the years, the term Canaliño has also been used by some archaeologists to refer to the generally similar coastal Chumash and Gabrielino (Tongva), maritime peoples who occupied much of the southern California mainland coast and both the northern and southern Channel Islands (see Wallace 1955:224; Orr 1968:101).

Unfortunately, no real consensus ever developed among investigators as to when the Canaliño first appeared along the southern California Coast. Wallace (1955) proposed a date of about 1,000 years ago for the initial appearance of the Canaliño, for instance, while Orr (1968:100-101) placed their emergence at about 2,500 to 3,000 years ago, and Harrison (1964:364) defined the Canaliño period along the Santa Barbara Coast as beginning about 4,000 years ago. This lack of consensus, and difficulties in reconciling various reconstructions of Canaliño cultural developments, led Glassow et al. (1986:17) to question the archaeological utility of the designation. Given the recent emphasis on the development of complexity among the Chumash, however, it remains of more than historical interest to try to understand when the elaborate maritime cultures of the Santa Barbara Channel first emerged.

Most southern California archaeologists would probably agree that the elaboration of material culture may be seen as an indirect measure of the diversification of coastal economies and the development of sociopolitical complexity along the southern California Coast. A fundamental problem with any such assessment, of course, is the arbitrary nature of our classifications of cultural elaboration or complexity, traits that normally develop on continuous scales of variation. In other words, the elaboration of material culture is a process that spans millennia, one that probably involves both the gradual accumulation of technological adjustments, periods of rapid local innovation, and the transfer of information or technology from neighboring groups.

As Harrison recognized almost 35 years ago, aspects of the CA-SBA-119 assemblage are characteristic of the Canaliño (Chumash) cultural pattern, including flexed burials interred with a wealth of grave goods, evidence for an elaborated ritual or ceremonial life, a relatively diverse array of beads and other ornaments, the development of an increasing emphasis on artistry in the production of functional tools such as mortars and pestles, and evidence for injury or violent death among a sizable portion of the population. These same traits are also apparent at the 3,000 to 4,000 year old Canada Verde (CA-SRI-41A) cemetery excavated by Orr (1968:149-171) on Santa Rosa Island. In this crowded cemetery, Orr recorded a minimum of 152 burials and estimated that as many as 100 more remained in the ground or were lost to erosion and other destructive processes. At CA-SRI-41A, Orr recovered more than 17,000 artifacts, including over 16,000 shell artifacts of 104 distinct types. *Spire*-removed *Olivella* beads were the most abundant shell artifact, but a wide variety of beads and incised pendants of clam and abalone shell were also recovered. The 437 bone artifacts collected were attributed to 41 types, including awls, pins, gouges, chisels, pendants, bipoints, barbs, incised and plain tubes, whistles, and deer hoof rattles. Of 117 formal stone artifacts found among the burials, Orr listed 16 types, including contracting stem points and other chipped stone tools; steatite pipes, beads, and pendants; bowls, pestles, charmstones, "donut" stones, and anvils; as well as a number of quartz crystals. For the 152 recorded burials, Orr (1968:161) described six individuals who appear to have died violently as "just a few examples" of violence "taken from the notes on the burial cards."

It is also interesting that the occurrence of certain objects (a headband decorated with shell beads, eagle or bear claws, charmstones, pipes,

bone tubes, whistles, quartz crystals, etc.) with some burials at CA-SBA-119 and CA-SRI-41 match ethnographic descriptions of burial accompaniments the Chumash often interred with their chiefs, members of the religious 'Antap cult, or high status individuals (Hollimon 1990:128-130). These parallels with ethnographically described Chumash practices, along with clear evidence for an elaborate and diversified material culture, a wealth of grave goods and ritual behavior, the differential distribution of wealth goods in some cemeteries (see King 1990:94-95), and substantial evidence for conflict and warfare, all suggest that some of the fundamental aspects of Canaliño or Chumash complexity had already emerged along the Santa Barbara coast between 3,000 and 4,000 years ago.

This proposal is not new, nor, I suspect, is it particularly controversial. It is consistent, in fact, with earlier interpretations by Harrison (1964), Orr (1968), and King (1990). What may raise a few hackles, however, is my belief that too much emphasis has been placed recently on cultural and environmental developments of the past 1,000 years, especially those associated with what has come to be known as the Middle-to-Late Period transition. In the Santa Barbara Channel area, a great deal of recent attention has been placed on the development of cultural complexity during this relatively short period of time (ca. A.D. 1150 to 1300). This focus is largely the result of the meticulous research of Jeanne Arnold (e.g., 1983, 1987, 1991, 1992) and her colleagues (Colten 1991, 1993) on Santa Cruz Island, as well as ensuing debate about some of their interpretations (see Raab et al. 1995; Raab and Bradford 1997; Raab and Larson 1997; Arnold 1997; Arnold et al. 1997). In most mainland sites, stratigraphic disturbance (mainly from gophers and other burrowing animals) limits the chronological resolution required to examine relatively short periods of time (for an exception see Erlandson and Gerber 1993). While the recent focus on the Middle-to-Late Period transition has provided a wealth of archaeological data about a relatively narrow window of time, it has detracted somewhat from our understanding of longer term cultural developments among the Chumash and their predecessors. It has underemphasized some of the fundamental Early and Middle Holocene processes (population growth, long-term environmental change, technological innovation, regional interaction, migrations, etc.) that provided the foundation on which the cultural complexity of Late Holocene societies was constructed.

WHY DID CHUMASH COMPLEXITY DEVELOP?

That southern California's coastal cultures changed dramatically during the last 11,000 years is clear. Culture change appears to have accelerated through time, in fact, with Early Holocene groups appearing quite conservative, Middle Holocene groups evolving somewhat more quickly, and Late Holocene groups changing relatively rapidly. Recognizing that Milling Stone-style adaptations persisted along parts of the Santa Barbara coast until as little as 3,000 years ago (Harrison 1964; Erlandson 1997) – as they have long been known to have persisted along other parts of the southern California coast -- accentuates the acceleration of culture change in the Santa Barbara Channel through the Holocene. Technological evolution on the southern and central California coast appears to have been an additive process. Few tool types disappear from the archaeological record, although their relative frequencies change within an expanding subsistence technology. Artifact and faunal assemblages from Santa Barbara Channel sites suggest that a wider range of resources was exploited through time. The addition of new habitats and technologies to the subsistence realm appears to have involved an increasing effort expended in the construction and maintenance of subsistence technologies, particularly those related to marine fishing.

Over the years, considerable emphasis has been placed on understanding the processes that led to the development of greater cultural complexity along the southern California coast. Changing with the times, archaeologists have proposed a number of different scenarios for why cultural complexity developed in the area. Rogers (1929) generally viewed the appearance of the Canaliño and their sophisticated maritime lifeways as evidence for a migration of people from another region, while Meighan (1959) saw such

developments largely as the result of a long and relatively gradual adjustment to marine lifeways (see also Hoover 1971:257; King 1990; and others). Like many archaeologists of the 1970s and 1980s, King (1990) proposed that growing coastal populations required increasing amounts of energy to sustain themselves, leading to a diversification of subsistence and technology through time. Unlike many of his contemporaries, however, King explicitly stated that environmental changes had little effect on the development of Chumash culture. For the past 20 years, however, most Santa Barbara Channel archaeologists have viewed environmental changes as key stimuli to cultural change (e.g., Glassow et al. 1988; Arnold 1987, 1992; Lambert and Walker 1991; Lambert 1993).

As I emphasized in a paper in press for most of the past decade (Erlandson 1998), an important stimulus to such evolutionary processes, related to both population growth and environmental change, may have occurred when people of the Santa Barbara Channel (and neighboring areas) reached a point of territorial circumscription (see Carneiro 1970). Prior to this, population densities were relatively low and a number of areas along the mainland coast, the islands, or interior valleys were probably underutilized at any given time. These open niches allowed social groups to move their villages in response to local resource shortages or social stress, to avert the sustained overexploitation of key resources, and to avoid many of the social conflicts that could result from ensuing resource shortages. As populations grew and the landscape filled with people, however, open niches became increasingly scarce and group territories converged or eventually overlapped. After local populations reached this point, populations could no longer move into unoccupied or underused areas in response to societal or economic stress. This led to the diversification and intensification of resource use within circumscribed group territories, as well as greater socioeconomic interaction between groups to even out inequities in the distribution of resources. Thus, territorial circumscription led to the development of greater economic and sociopolitical complexity to regulate such interactions. In some cases, greater interaction may have led to increased cooperation and economic exchange, in others to more competition and warfare. In such socially and environmentally circumscribed societies, the development of more formal social hierarchies based on wealth and power also provided increased opportunities for coercive or exploitative manipulations by elite members of a group.

Like population pressure and the effects of environmental change, territorial circumscription is difficult to measure archaeologically. There is little direct evidence when southern California coastal peoples became circumscribed, but there is little doubt that Chumash territories were circumscribed when Cabrillo first sailed into the Santa Barbara Channel in A.D. 1542. I suspect that an apparent acceleration of cultural change after about 3,500 to 4,000 years ago may indicate that social groups of the Santa Barbara Channel and surrounding regions approached or reached territorial circumscription near the end of the Middle Holocene. After this time, physical anthropological data suggest that the health of Santa Barbara Channel populations declined significantly as resource stress and social conflict increased (Lambert 1993; Lambert and Walker 1991; Walker 1989). By the Late Holocene, the balance between population size and environmental productivity appears to have become increasingly precarious, setting the stage for the significant and rapid cultural changes of the last 1,000 to 1,500 years.

CONCLUSIONS

The sociopolitical complexity of California's maritime peoples at the time of European contact had its roots deep in the demographic expansions, technological innovations, and information networks of the Early and Middle Holocene. In my view, the development of the Barbareño Chumash was a process that spanned thousands of years. A key point in the evolution of Santa Barbara Channel populations may have occurred when Canaliño populations approached or reached territorial circumscription. After this threshold was breached, the balance between human resource needs and fluctuations in environmental productivity were increasingly precarious. Environmental changes that may

have posed relatively limited challenges during the Early and Middle Holocene, therefore, had more serious consequences for densely packed Late Holocene populations. Under these circumstances, both economic cooperation and violent conflict seem to have increased – two alternative and sometimes complementary strategies for survival in times of stress. The resulting need for the increased regulation of social interactions (both peaceful and violent) are probably reflected in the increasing diversity of beads, ornaments, and other artifacts that were markers of ethnic or local group affiliation, social status, and wealth.

The elaborated artifact assemblages from the 3,000 to 4,000 year old cemeteries at CA-SBA-119 and CA-SRI-41, along with the evidence for violence, ritual, and differential wealth, appear to be consistent with this scenario. Unfortunately, the archaeology of this time period is relatively poorly known in the Santa Barbara Channel and adjacent areas of the southern and central California coast. Hopefully, future research will focus on this key period to better elucidate the processes associated with the early stages in the development of the those maritime peoples once referred to as the Canaliño. Interestingly enough, aspects of Chumash cultural elaboration along the Santa Barbara mainland coast seem to predate key developments in the intensification of marine fisheries, including the circular shell fishhook. Here, some elaborated artifact assemblages have come from Late Milling Stone sites whose occupants seem to have relied on a mixed economy in which both marine and terrestrial resources played key roles.

NOTES

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Table 1: Radiocarbon Dates from CA-SBA-119*

Lab #	Material Dated	Provenience	14C Date	Calendar Age Range
A-323	Red abalone shell	Burial 4: 96 cm	3270 ± 250	3630 (3350) 3010 BP
A-324	Black abalone shell	Burial 8	3420 ± 130	3670 (3490) 3360 BP
A-340	Pismo clam shell	Near base of midden	3530 ± 60	3720 (3630) 3560 BP
?	Marine shell	Burial 8	3730 ± 100	4060 (3890) 3760 BP
A-325	Charcoal? (or asphaltum?)	Near Burial 2	29000 ± 1000	Contaminated?

* Uncorrected dates adapted from Breschini et al. (1996) and J. R. Johnson, pers. comm., 1998; calendar ages derived using Stuiver and Reimer (1993), with range at 1 sigma and midpoint in parentheses. All 14C dates on shell have been adjusted by adding 430 ± 15 years to compensate for the effects of isotopic fractionation and subtracting 225 ± 35 years for the local marine reservoir effect (upwelling, etc.).