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ARCHEOLOGICAL EVIDENCE OF SOCIAL COMPLEXITY OF THE PREHISTORIC COASTAL CHUMASH

Archeologists have described the social complexity of the prehistoric Chumash society in various ways such as "hunter-gatherer", "hunter-fisher", "complex hunter-gatherer", and as a "simple chiefdom maritime culture" among other designations (Arnold 1992:60; Gamble 2008:6; Hayden 2007:241; Kroeber 1971:28; Timbrook 1982:164). Social complexity in a society has generally accepted as the presence of craft specialization and more than one elite class of people with inherited wealth and superior social status (2007:233). Did the prehistoric Chumash live in a socially complex hierarchical society? This paper will review published archeological evidence of the emergence of prehistoric Chumash social complexity long before sustained contact with Europeans with the *Alta California* expedition that founded the first California missions of Fathers Junipero Serra and Gaspar de Portola in 1769 (Gamble 2008:1).

Before having their culture and demographics decimated by European contact, the Chumash had an extraordinarily populous (15,000 to 20,000) and socially complex culture of sedentary complex hunter-gatherers. They controlled a vast regional inland trade network extending to the Mojave Desert in the east and a maritime trade network from

Moro Bay in the north, the Channel Islands to the west and south to Topanga Canyon, and traded using a currency made of shell beads. They had large wooden ocean voyaging boats, which they used for trade and for deep sea fishing in a region particularly rich with marine foods and had an efficient means of maintaining year-round supplies of plant foods such as acorns and several species of seed plants such as chia. On land they lived in relatively densely populated villages headed by "chiefs" along the coast of California from Topanga Canyon, to the south, and Malibu, Oxnard, Ventura, Santa Barbara, and on up to the Monterey County line to the North and as well as on the Santa Barbara Channel Islands (Gamble 2008:2,6).

THEORIES OF SOCIAL COMPLEXITY

"Unfortunately, social inequality has no precise *operational* definition," according to Brian Hayden (2007:232). The taxonomy of social inequality describes, more or less, multivariate levels of social complexity on a continuum (Hayden 2007:245). The emergence of social inequality is generally a rapid process made possible by food surplus and conditions of periodic population-carrying capacity imbalances where an "intensive labor investment is required to avert crises, thus establishing situations with high potential for the organization and manipulation of labor" according to Jeanne Arnold (Arnold 1992:62). Transegalitarian or "ranked societies" are societies that fall in between

egalitarian hunter-gatherer societies and stratified chiefdoms. They feature abundant year-round food production and "private ownership of resources, low levels of sharing, and institutionalized hierarchies based ultimately on wealth (but also including ritual, kingship, and political dominance) with political control by charismatic "big men" or hereditary chiefs (Hayden 2007:232). The production and re-distribution of food surpluses, the use of prestige goods, and communal feasting patterns are also characteristics of transegaliarian societies.

Using only archaeological evidence, a political hierarchy can be inferred by the existence of material items that indicate significant differences in the control or ownership of property and wealth (Hayden 2007:233). Craft specialization is associated with social complexity of hierarchical societies in that craft specialists produce objects and technologies that help maintain and legitimize elite power as well as indicate a division of labor other than gender and age (Costin 2007:274). "Stratification refers to the institutionalized rights and privileges usually involving hereditary status, economic rights, and roles," according to Hayden (2007:233). Like the Northwest Coast Indians, the Chumash had a stratified society based on economic and social stratification (wealth) but without significant political stratification of one community controlling another in a

regional polity (Hayden 2007:233). The cultural ecology focus of the emergence of complexity has shifted from environmental and demographic factors to human agency according to Polly Wiessner (2002:234). It is believed that every society has ambitious individuals called "aggrandizers" who "provide the motor for change" as political actors trying to legitimize their authority and social inequality when there is a population-resource imbalance to (Clark 1994:17; Wiessner 2002:234-242).

Characteristics of complex hunter-gatherer societies include: sedentism, intensified food production, food storage, increased population densities, the production and trade of prestige items, warfare, and socioeconomic hierarchies that include hereditary chiefs (Hayden 2007:241-242). There are few differences between complex hunter-gatherers and horticulturalists as the village populations of complex hunter-gatherers can even exceed 1,000 people (Hayden 2007:242). However, what is interesting is that these large and densely populated hunter-gatherer villages are all located in coastal communities with access to year-round marine foods. The coastal community villages generally have larger population densities than the in-land communities who subsist on solely terrestrial plants and game and/or riverine and lake fish and migrating fowl (Rosco 2006:38). In other words, coastal fishing-communities, in general, have a highly localized, denser, and more

nutrient-rich source of calories with aquatic foods than do land-based foragers. These inland hunter-gather communities are distributed are less densely populated and are distributed in more mobile nomadic and semi-nomadic seasonal villages (Rosco 2006:43).

The "culture core" of regional polities such as chiefdoms include rich resources, opportunities for trade from water-based transport or proximity to trade routes, population density from two to 100 persons per mile, the technology for intensive agriculture or trade that is capital intensive, hierarchical social organization, warfare of conquest, and political integration expands geographically (Johnson 2000:248-250).

Some chiefdoms were based on abundant seafood sources and food storage such as the Northwest Coast Indians and the coastal Chumash (Ames 1994; Hayden 2007:246). Simple chiefdoms have populations in the thousands and generally control one village. Complex chiefdoms have populations in the tens of thousands and generally control more than one village such as the Chumash chiefdom of Santa Cruz Island that emerged during the Transitional period (Arnold 2002: 761; Hayden 2007:246).

ARCHEOLOGICAL EVIDENCE OF SOCIAL COMPLEXITY

The archeologically recoverable material correlates of social complexity include "mortuary indicators (osteology, size of burial, grave goods, status dimensions, collective burials), prestige items and distributions, hoards, iconography, regional settlement patterns,

house sizes and quality, special structures and monuments, and restricted special spaces" according to Brian Hayden (Hayden 2007:233). However, according to Chumash archeologist Jeanne Arnold, "Archeologists must use a multidimensional approach to complexity; neither mortuary data nor any other [single] line of evidence can be used alone to assess social inequality" (Arnold 1992:68).

According to Jeanne Arnold, for the Chumash, these correlates appeared in the archeological record during a period of climate change characterized by resource stress with "epic droughts" and "low marine productivity" between A.D. 800-1350 (Arnold 1992:66; Jones 1999: 138; Walker 1986:321). During those years was a period of climate change, A.D. 1150-1300. The period A.D. 800 through 1350 is called as the Middle-Late Transitional period by Jeanne Arnold due to the emergence of increased social inequality (Arnold 1992:66). Signs of social inequality include increased specialized craft production of microliths, shell beads and *tomols* as well as evidence of inter-personal violence on Santa Cruz Island (Arnold 1992:66; Walker 1986: 326). It was during this Middle-Late Transitional Period that the intensive production of microliths (stone drills for shell bead production) and *Olivella* shell bead currency first appeared as a monopoly by the Santa

Cruz Island Chumash, which has been called the "Fort Knox" of the Chumash (Arnold 1992:66).

There is disagreement about when hereditary inequality appeared in the Chumash culture. According to Chester King, ascribed social status appeared as early as the Late Early period (5500-600 B.C.) based on the evidence of a few of burials containing more cylindrical clam beads than others. Many scholars criticized King's assertion for his inadequate sample size (five burials) and the fact that the burials were never dated (Arnold 1992:68; Gamble 2008:10). More conclusive mortuary evidence shows that elite lineages didn't appear until the Late and Historic periods (A.D. 1300-1782) which were after the period of climate change (Arnold 1992:67). In Malibu Lynn Gamble analyzed more than 51 Chumash burials in a prehistoric cemetery and more than 112 burials of Chumash individuals of all ages and both genders in an historic cemetery. She discovered that about ninety percent of them in the Historic cemetery had few or no shells beads and only nine percent (n=12) were associated with over 1000 shell beads and many prestige objects (Gamble 2002: 775; Gamble 2008:202). However, Gamble's interpretation of social inequality from the Malibu site has been criticized by Arnold in that the artifacts found in the burials may not have belonged to the deceased and actually represent the burial practice

rituals of the survivors rather than markers of status of the deceased (Arnold 2002:764). "Destruction and inheritance of possessions may have played a far larger role" according to Arnold (2002:765).

The elaborate exchange network that enabled the Chumash to maintain the food surplus to support their populous villages is evidenced by the construction of their seafaring plank boats called *tomols* which elevated the status of chiefs and other wealthy elites and enabled safe inter-island and cross-channel transport of passengers and trade goods. These long distance maritime exchange networks were in place as early as 840 to 600 B.P. according to the discovery of a wooden boat model called the "Arlington boat" that found on Santa Rosa Island (Torbin 2004:301). Only chiefs and the very wealthy could afford a *tomol* as they took about six months to build–about 500 person-days of labor–and specialized knowledge that was restricted to a few (Arnold 2005:114). Increased frequencies of the faunal remains of deep sea or pelagic fish have been found at sites after A.D. 1200 and is indirect evidence of the importance of deep water fishing made possible by the *tomol* (Arnold 2005:115). Food surplus storage is evidenced by subterranean pits and storage baskets that were found in several mainland village sites of *Muwu, Shilimaqshtsh, Helo'* and at Pitas Point (Gamble 2008:175). Evidence of competitive

feasting between village chiefs is from the presence of rare and labor-intensive plant and animal foods such as the bone remains of deep water fish such as swordfish, albacore and short fin mako, that required the use of a *tomol* to capture that have been found in numerous Late period settlement sites (Gamble 2008:182). Excessive quantities of food indicating feasting are inferred from giant food vessels such as the large stone ollas (some as large as 40cm wide) and comals made from Catalina Island talc schist and steatite found in sites in San Luis Obispo and Ventura (Gamble 2008:183).

SUMMARY

The prehistoric Chumash controlled a vast exchange network, produced their own currency of shell beads, and had sophisticated food production and craft specialization. Their their wooden-plank boats called *tomols* allowed them to safely ferry passengers, trade goods and marine and terrestrial plant and animals foods across the Santa Barbara Channel and up and down the mainland coast safely as early as 11,000 to 13, 000 years ago (Gamble 2008:2; Torben 2004:301). However, "there are no archaeological indicators of paramountcy in the region," according to Jeanne Arnold (Arnold 1995:68). The high population densities, sedentarism and regional exchange networks of the Chumash indicate a village-based simple chiefdom within a regional trade network (Arnold 1995:68; Arnold 2002:762).

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