

FURTHER CONSIDERATIONS ON THE EMERGENCE OF CHUMASH CHIEFDOMS

Lynn H. Gamble, Phillip L. Walker, and Glenn S. Russell

Identifying the origins of simple chiefdoms in the archaeological record is a subject that has elicited significant debate among archaeologists working in the Chumash region. We address several significant issues raised by Arnold and Green concerning our interpretations of the mortuary data from the site of Malibu. We argue, contrary to their assertion of ambiguity, that when multiple lines of evidence are considered, a strong case can be made for the existence of sociopolitical complexity during the Middle period.

La identificación de los orígenes de jefaturas simples en el registro arqueológico es un tema que ha propiciado debates importantes entre los arqueólogos que trabajan en la región de los Chumash. Nos referimos a varios puntos significativos discutidos por Arnold y Green en lo que concierne a nuestra interpretación de los datos mortuorios del sitio de Malibú. Argumentamos, contrario a su aseerción de ambigüedad, que durante el Período Medio la complejidad social y política son apoyadas fuertemente cuando se consideran múltiples líneas de evidencia.

Arnold and Green's critique of our recent paper (Gamble et al. 2001) on social organization at Malibu provides a nice example of the central point we wanted to make: When one focuses only on a few sources of data, the larger, more detailed, and empirically grounded picture of past human behavior that is the objective of archaeological research recedes from the investigator's view. Studies such as ours, which integrate information from a broad range of sources, are challenging because they require close collaboration among specialists in many different academic subdisciplines. Although some researchers may find the disruption of traditional academic territorial boundaries required by this integrative approach threatening, we believe that it can be enormously rewarding from a scientific perspective and, in fact, provides the only means through which significant advances can be made in understanding the evolution of human social complexity.

Because of the integrative approach used in the paper, our conclusions concerning the social organization of the people buried at Malibu rest upon the

intersection of multiple lines of evidence derived from a broad spectrum of conceptually and methodologically independent sources. By focusing their critique of our paper on the shortcomings of grave goods as a source of evidence for reconstructing earlier human social relationships, Arnold and Green divert attention from the strength of our argument, which rests upon an appreciation for the overall structure of the multiple lines of mutually consistent and reinforcing evidence that we present.

Our response to Arnold and Green's comments will focus on a series of methodological and theoretical issues that are essential for interpreting the Malibu mortuary data. However, these issues are also relevant to identifying and explaining the emergence of social complexity throughout the world. We first briefly review the history of research at the site of Malibu and the extent to which data from this site can be used to make generalizations about the entire Chumash region. As part of this discussion, we respond to their concerns about the quality of the Malibu data and our use of ethnohistoric and ethnographic sources. This sets the stage for a more

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detailed consideration of the associations of beads and ornaments in both Malibu cemeteries, their spatial distributions, and the symbolic value beads had locally during the Middle and Historic periods. We conclude with a discussion of the types of archaeological evidence needed to identify the emergence of Chumash chiefdoms.

History of Research at Malibu

We will not repeat the chronology of research at Malibu, which was provided in our original article, but wish to clarify the recent history of research on the site. Arnold and Green set the tenor of their article in the first sentence by stating that we follow in the footsteps of Green (1999), Martz (1984), and others. We agree that we build on the work of Martz and others, as is clearly stated on page 194 of our article. However, Green did not become interested in the Malibu information until after she was hired by Gamble to complete graphics for the Malibu project in 1995. At that time, Gamble, Russell, and Walker contracted with the California Department of Parks and Recreation to organize, document, and complete research reports on the 1970s Malibu excavations. The collections and associated documentation were in a state of disarray. Hundreds of hours were spent on organizing and analyzing the Malibu material, including the artifacts, skeletal remains, and documentation. Three reports and numerous detailed catalogues were produced as a result of these efforts (Gamble et al. 1995, 1996; Walker et al. 1996), all of which were cited in our 2001 article. Walker and his colleagues (1996) analyzed all the human remains from the site and documented the demographic attributes, paleopathology, and health status of the individuals in both cemeteries in a 118-page monograph. The fruits of these organizational and analytical efforts formed the basis of our 2001 article, and were also used by Green (1999) in her dissertation.

As part of Gamble et al.'s 1996 monograph, Chester King completed a detailed analysis of the bead assemblages in both cemeteries. In his report, he described each bead type in detail and provided numerous tables and graphs. Arnold and Green criticize us for using the total number of beads found without a more detailed analysis of bead types. As will be discussed below, a consideration of bead-type variability based on King's analysis serves to validate our conclusions, which were based on total bead counts.

Variability in the Chumash Region

Early in Arnold and Green's comment, they state that "Gamble et al. have made a rather unexpected presumption in their work that the emergence of chiefdom-level organization had to have happened synchronously throughout Chumash territory." We presumed nothing of the sort, nor did we make a statement suggesting that there was contemporaneous development throughout the Santa Barbara Channel area. Instead, we provide evidence suggesting that sociopolitical complexity emerged in the Malibu area before the environmental stresses that Arnold (1992:78) believes contributed to the emergence of Chumash chiefdoms.

Quality of Data

Arnold and Green state that we "omit" reference to the quality of the condition of the collections used for our analysis. This is simply not true. On page 195, we present an entire section on the problems with the data that we do not intend to repeat here. As with most mortuary analyses, the quality of the data is variable. Nevertheless, the Malibu cemeteries provide a tremendous amount of information. Our sample sizes depended on the variables that were examined. In some cases, we were able to include more than 51 burials in the prehistoric cemetery and more than 112 burials in the historic cemetery. For example, when considering variability in the number of associated grave goods (a central issue addressed in the paper), we were able to use all of the burials from both cemeteries (pp. 196 and 200). We only limited our sample sizes when multiple variables were simultaneously considered.

Arnold and Green appear to believe that our analysis is compromised by the "widely recognized" fact that many Chumash burials were made outside formal cemeteries: "The Chumash also buried people in the floors of their houses (especially so in the Historic period), meaning that cemeteries only contain some unknown sample of individuals from the village population. Little is known about the burial of very poor or disenfranchised people" (p. 764). Unfortunately, Arnold and Green do not provide any references for this "widely recognized" practice.

We disagree with their characterization of Chumash mortuary practices. Discrete cemeteries were used in the Santa Barbara Channel region for thousands of years, and thousands of burials from these

cemeteries have been documented. Examples of burials in house floors, in contrast, are exceedingly rare. Burials were found in floors at Posa on Santa Cruz Island, but it is believed that these were placed there after an earlier residential area was converted into a cemetery (Chester King, personal communication, 2002). Schumacher (1877:44), who excavated hundreds of Chumash burials, commented on the rarity of burials outside of cemeteries when he found a few skeletons associated with houses near Forney's Cove (SCRI-328). Horne (personal communication, 2002) also found scattered human bone at the same site and attributes them to postdepositional disturbance. Burials associated with a sweat lodge at Morro Bay (Clemmer 1962; Gamble 1991) provide one of the few remaining examples of such interments. Clemmer (1962:26–28) suggests that most, if not all, of these interments were made after the abandonment of the structure and the conversion of the area it occupied into a cemetery. The archaeological evidence suggests that burials in houses were exceedingly rare among the Chumash. When one does occur, it often seems to be a result of a former residential area being converted into a cemetery.

Finally, this leads us to strongly disagree with their statement that we know little about the “poor and disenfranchised” among the Chumash. In our article we argue that many of the individuals in both cemeteries—who lacked grave goods, were less healthy, and were buried in shallower graves—are these less-fortunate individuals.

Use of Ethnographic and Ethnohistoric Data

Arnold and Green cast aspersions on our use of ethnohistoric and ethnographic sources and question the subgroup affiliation of some of the Chumash consultants whose observations we cite. We state on p. 191 that the most important ethnographic sources were from Ventureño Chumash elders whose homeland encompassed the Malibu area. While it is true that the accounts of indigenous consultants should not be uncritically accepted, we have carefully used ethnohistoric and ethnographic sources to generate hypotheses that we tested using multiple methodologically and conceptually independent lines of evidence. As noted (p. 207), the Malibu cemeteries provide clear evidence for a continuity of burial practices from the Middle period onward. A similar pattern can be seen throughout the Chumash region and

is in large part consistent with ethnohistoric and ethnographic sources.

Arnold and Green question our interpretation of the Malibu mortuary practices because some Chumash groups practiced a periodic mourning ceremony where items, including beads, were burned in honor of the dead (Holliman 2001:45; Hudson et al. 1981:47–49). They suggest that because of the mourning ceremony, the graves of high-status individuals may be archaeologically invisible. We clearly addressed the ramifications of the mourning ceremony in our article. Even if it were a common practice among the Ventureño Chumash, which is an issue that may never be resolved, we believe that we can, nevertheless, distinguish high-status from lower-status individuals. Offerings were clearly being made during the burial ceremony. Although these offerings may not be personal possessions, we argue that their value and abundance is not randomly distributed relative to the status of the individual. How would “poor or disenfranchised people” manage to accumulate massive quantities of shell beads representing thousands of hours of labor for disposal in burial ceremonies? The mourning and burial ceremonies were different events and apparently held in different locations. While it is true that personal possessions may sometimes have been burned during mourning ceremonies, this does not mean that offerings proportional to a person's social status were not also made at the time of burial. Although there are only a few ethnohistoric accounts of burials in the Chumash region, they do clearly indicate that offerings were made during the interment process. The funeral that Crespi and other members of the Portolá expedition observed of an apparently high-status individual (p. 190) indicates that he was buried with strings of beads.

Disruption of Chumash Traditions during the Historic Period

Arnold and Green further suggest that we did not recognize the full impact of historic disruption on the Chumash at Malibu. We discuss the impact of Spanish colonization throughout our article and have analyzed this issue elsewhere in great detail. Although the Malibu Chumash were clearly in contact with the Spanish and obtained trade goods from them, including glass beads and a variety of metal objects, they were still living independently at Malibu, outside of the authority of the mission system. In fact, it can be

argued that they maintained symbolically important traditional practices such as those involving the treatment of the dead in order to maintain as much as they could of their traditional social organization. This criticism is especially puzzling in view of Green's (1999:236–237) statement based on her Malibu research: "Chumash religion during the contact period demonstrated a remarkable resilience and ability to survive." It was only after most of the inhabitants of Malibu entered the mission system during the early 1800s that these fundamental aspects of their traditional lifeways were severely disrupted.

Beads, Ornaments, and Rare Artifacts

Arnold and Green suggest that due to the presence of *Olivella biplicata* split-punched beads, some burials from the Middle period cemetery may actually be Transitional period burials. Split-punched beads, which began to be used in the late Middle period, were associated with only two of the burials in the prehistoric cemetery. Arnold and Green are correct in noting that split-punched beads were in use up until A.D. 1250. King (Gamble et al. 1996) also noted this in his Malibu bead analysis.

Arnold and Green criticize our use of total number of beads because, in our paper, we do not differentiate types of beads that may have different values. This is a valid concern that we addressed in our earlier report (Gamble et al. 1996). King, who completed a detailed bead study for the two Malibu cemeteries, distinguished many bead types during both time periods. Bead types present in the Middle period cemetery included *Olivella biplicata* wall discs, *Olivella biplicata* saucers, *Olivella biplicata* split-drilled, *Olivella biplicata* split-punched, *Olivella biplicata* spire- and base-ground beads, *Olivella dama* spire-removed beads, *Mytilus* discs, stone beads, and bone beads. In addition, *Megathura* and abalone ornaments were part of this assemblage. King divided the *Olivella biplicata* wall discs and the *Mytilus* discs into four size ranges based on diameter. He stated that the small *Mytilus* and *Olivella* discs were often associated with each other, and large *Mytilus* and *Olivella* discs were also frequently found with one another. The smaller, more refined beads require more effort to make, as their edges need additional grinding. Malinowski (1922) noted that the Trobrianders also had small and large shell-wall beads and that only the smaller ones were used in the ceremonial Kula exchanges among leaders. The

smaller *Olivella* and *Mytilus* disc beads have different spatial distributions than the larger ones. The individual with the most beads in the prehistoric cemetery (Burial 38, $n = 4,507$) also had the greatest number of small *Olivella* and *Mytilus* disc beads ($n = 4,154$) and very few large disc beads ($n = 25$). A similar pattern can be observed in the historic cemetery. The individual with the most shell beads (Burial 95, $n = 5,202$) also had the most small *Olivella* disc beads ($n = 4,316$).

Arnold and Green also criticize our grouping of beads and other shell ornaments in the same artifact category. We did this to simplify our presentation of these complex data. In both the historic and prehistoric cemeteries, there are relatively few ornaments (prehistoric, $n = 167$; historic, $n = 22$). In our monograph on Malibu, the distribution of ornaments was examined separately (Gamble et al. 1996). The results of the analysis remained similar.

Arnold and Green's discussion of "rare" artifacts as an indication of wealth is based on questionable assumptions. They propose that the distribution of rare items in the historic cemetery does not correlate with abundant grave goods such as beads. That is precisely why we did not use rare items (many of which are utilitarian items such as awls, bead blanks, barbs, fish hooks, gorges, scrapers, and tarring pebbles) to identify higher-status individuals. These objects are not particularly valuable in terms of raw material availability or production costs. Arnold and Green further suggest that the only rare items that could be used as an indication of wealth are bead blanks and canoe parts. We question the logic of assuming that a single unfinished bead must be of greater symbolic significance than many finished beads, simply because an isolated unfinished bead is a rare burial accompaniment. On the other hand, we concur with Arnold and Green's identification of canoe planks as rare and valuable items and discuss the distribution and meaning of canoe planks extensively in our article.

Identifying Chiefdoms in the Archaeological Record

Arnold and Green suggest that patterning in the Middle period cemetery is more indicative of leaders who were shamans and big men rather than chiefs. The identification of chiefly organization in the archaeological record is a daunting task, especially in societies that lack monumental architecture, exten-

sive irrigation systems, or other large-scale corporate constructions. Arnold and Green suggest that the separation of wealth objects from religious objects in the Middle period does not reflect a chiefdom level of organization but is more indicative of "competing or unaligned religious or political leadership, whereas the Late period grave goods indicate leadership united in single personages" (p. 763). This statement appears to ignore the evidence that chiefly power in Chumash and other native Californian societies was never united in a single personage, but instead involved the interplay of parallel and overlapping political and religious hierarchies (Blackburn 1976). There are societies all over the world ranging from chiefdoms to state-level organizations in which power is differentiated into religious and sociopolitical realms; the Maya, Egyptians, and Hawaiians provide examples. Differences in the distribution of objects symbolizing wealth and religious power in mortuary contexts are found in a variety of societies that vary in their social complexity.

Earle notes that in big men systems there are good reasons not to bury wealth with the dead: "Big Men systems should have wealth found largely in non-burial contexts because the Big Man's power is amassed personally and not transferred through inheritance" (Earle 1994:432). This argument is supported by ethnographic examples, which suggest that often in such societies wealth is not buried with the dead (e.g., Goodale 1995). Arnold and Green cite a number of ethnographic examples to make the point that "big man and chiefly societies do not exhibit universal mortuary patterns." While variability certainly exists among societies throughout the world, status is reflected in the mortuary practices of many chiefdoms. This appears to have been true of the Chumash: the mutually reinforcing lines of ethnographic, ethnohistoric, physical anthropological, and archaeological evidence we present in our paper strongly suggest that by the late Middle period the people at Malibu were living in a simple chiefdom.

We are fortunate to have a rich ethnographic and ethnohistoric record for the Chumash and have chosen to use the direct historic approach instead of basing our argument solely on ethnographic extrapolations from societies in other parts of the world. Nevertheless, we do not uncritically accept this documentary evidence. Instead, we assess its validity using other independent lines of evidence.

Arnold and Green's comments focus attention on

the difficulty of tracing the development of sociopolitical complexity based upon the highly fragmented, limited, and complex archaeological record. They nevertheless suggest that "[t]he multidimensional and primarily residential data from the northern Channel Islands are fairly clear in showing that chiefdom-level political and economic organization emerged in the islands during the Transitional period (A.D. 1150–1300)" (p. 761). Elsewhere, Arnold states that "[u]ltimately, the factors stimulating political elaboration in the island Chumash case were changes in the organization and manipulation of labor associated with technological innovation, specialized production, and control over intensified middle-distance exchange early in the second millennium" (Arnold 2001:295). Arnold and her colleagues have written numerous articles that reiterate this same point concerning the emergence of chiefdoms during the Transitional period (A.D. 1150–1300). We agree with the conclusion that simple chiefdoms existed among the Chumash during the Transitional and Late periods and that significant changes occurred. However, the evidence that simple chiefdoms first emerged during the Transitional period is weak.

Arnold bases her argument about the Transitional period origins of hereditary leadership among the Island Chumash on the assertion that "about a dozen major organizational changes occur[red] more or less simultaneously . . ." at this time (Arnold 2001:295). After carefully reviewing the evidence, we do not believe that adequate chronological control, in conjunction with robust archaeological evidence, exists to document convincingly the timing of most of these postulated organizational changes. The core of the argument, which Arnold repeats in many of her papers, rests on the assumption that the intensification of craft specialization, which began at about A.D. 1150–1200, was on such a large scale that it could not possibly have occurred without the centralized control provided by chiefs. Spielmann's (2002) recent article underscores the weaknesses inherent in such an argument. Using ethnographic evidence from a broad spectrum of cultures, Spielmann shows that the presence of craft specialization does not necessarily require centralized control of labor, even when thousands of people over an area far larger than the Santa Barbara Channel region are involved in these activities. In this brief response, we cannot address all the points (many of which are derived from the assumption that craft specialization

= centralized control = chiefs) that Arnold has previously proposed. However, in our opinion she does not provide convincing archaeological evidence for the timing of many of the organizational changes that she suggests occurred simultaneously during the Transitional period.

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MORTUARY AMBIGUITY: THE VENTUREÑO CHUMASH CASE

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The later evolution of Chumash polities in various subareas, including the Channel Islands, has attracted considerable scholarly attention. Most investigations on this topic during the past decade have focused on economic and political evolution through the use of residential data (e.g., Arnold 1992a; Arnold, ed. 2001; Kennett 1998). Earlier, and now again with the publication of Gamble et al. (2001), cemetery data are marshaled to examine cultural change. While we applaud this recent effort, the utility of the results is constrained ultimately by factors including the representativeness of the excavated Malibu cemetery data, Mission period disruption of Ventureño Chumash culture, and insufficient attention to the consequences of mourning ceremonies. The authors add to an understanding of later Ventureño mortuary behavior, but their discussion conflates social ranking and political evolution. The results do not, contrary to their expectations, alter extant interpretations of Island Chumash production, specialization, and trade, nor the timing of changes in islanders' labor organization and political integration. The ultimate logical implication of their discussion would be that a single Chumash chiefdom evolved before (within?) the Middle period and operated in lockstep throughout the region—joining the Ventureño and Island Chumash at the political hip, so to speak. We see no evidence to support any part of this proposition for either of the subregions in question.

La última evolución de las unidades políticas de los Chumash en varias subregiones, incluyendo la de las Channel Islands, ha atraído mucha atención en los círculos académicos. Durante la última década la mayoría de las investigaciones sobre este tema se han concentrado en las evoluciones políticas y económicas a través del uso de datos residenciales (e.g., Arnold 1992, Arnold, ed. 2001; Kennett 1998). Anteriormente y ahora nuevamente con la publicación de Gamble et al. (2001), se reúne la información obtenida en los cementerios para examinar cambios culturales. Mientras aplaudimos este reciente esfuerzo, la utilidad de estos resultados está últimamente constreñida por factores que incluyen la representatividad de los datos obtenidos en la excavación del cementerio de Malibú el período de la cultura Chumash Ventureña interrumpida por las Misiones, y la falta de suficiente atención a las ceremonias fúnebres y sus consecuencias. Los autores aportan al entendimiento de las costumbres fúnebres de los más recientes Ventureños, pero sus discusiones no distinguen evolución política de rangos sociales. Los resultados no alteran, a pesar de sus expectativas, interpretaciones existentes acerca de la producción, especialización, y comercio de los Chumash Isleños, como tampoco el tiempo en que ocurren los cambios en la organización del trabajo y la integración política de los isleños. La implicación lógica de esta discusión es que el cacicazgo se desarrolló antes (ó dentro) del período Medio y funcionó en forma muy precisa, como reloj, a través de toda la región—en otras palabras los Ventureños y los Chumash Isleños se desarrollaron al mismo tiempo. Nosotros no encontramos evidencia que soporte esta proposición en las subregiones en cuestión.

Formal analysis of both the prehistoric and historic Malibu cemeteries near Los Angeles—originally excavated during the 1970s—has long awaited publication, and Gamble et al. (2001) now follow in the footsteps of Green (1999), Martz (1984), and others who have discussed portions of these data in depth. Gamble et al. are to be commended for presenting new interpretations of the mortuary practices of the Ventureño Chumash at

Malibu. An important lesson of the NAGPRA era is that those who excavated human remains decades ago, or those who curated the collections, have an ongoing professional obligation to follow through with scientific study. A great deal has been learned from these mortuary collections as they were readied for repatriation. Archaeology in mainland southern Chumash territory (from Ventura to the Los Angeles area) during the past couple of decades has

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often been development-driven work performed by independent firms that have a limited forum to coordinate research designs and share results, so new discussions of large, old mortuary collections such as these are welcome for their potential to expand what we know about the basic social organization of mainland Chumash subgroups.

Archaeologists conducting long-term research have been fortunate to significantly expand our knowledge of another Chumash subgroup, the Cruzeño or Island Chumash of the northern Channel Islands, drawing from residential (not mortuary) excavations in well-preserved sites over the past 20 years. These investigations provide new information about technology, economics, exchange, subsistence, settlement, specialization, households, and political evolution, employing multiple kinds of data from a large number of sites and documents (e.g., Arnold, ed. 2001; Glassow 1993; Johnson 2001; Kennett 1998; as well as many others).

Despite significant differences in the kinds and quality of available data sets in these two subregions, leading to some comparative uncertainties—and despite known ecological, linguistic, and economic differences between the Ventureño and Island Chumash—Gamble et al. have made a rather unexpected presumption in their work that the emergence of chiefdom-level organization had to have happened synchronously throughout Chumash territory. They suggest that mortuary data at Malibu may point to a “chiefdom” by the later Middle period (ca. A.D. 900–1000). They further suggest that archaeological investigations by scholars working on the Channel Islands who have documented Transitional-period dates (post-A.D. 1150) for the rise of chiefdom organization should therefore be discounted. Essentially the argument states that if newer data from the mainland coast do not produce the same time line as the published islands data, then other scholars’ interpretations about emergent complexity are incorrect. Such a line of reasoning is scientifically (and logically) unsound and is unwarranted on a number of grounds, as will be explored in depth below. We hope to make clear that the Malibu study sidesteps possibly significant problems with the Malibu mortuary data set, glosses over important differences among distinct sociopolitical units in the region, ignores the political essence of the evolution of chiefdoms, and minimizes the broader impacts of southern California’s Historic period disruptions.

In this discussion, we rely on several recent analyses (e.g., Arnold, ed. 2001; Green 1999) with a bearing on these issues, and we point to alternative perspectives regarding the raw data that can (and do) result in substantially different conclusions. Our comments center on two principal points. The first is the issue of political evolution, specifically the emergence of chiefs, and whether this important transformation occurred earlier, at the same time as, or later in Malibu relative to the northern Channel Islands. We suggest that unless the entire coastal and Island Chumash region constituted a single paramount chiefdom developing simultaneously throughout a large territory, some chronological differences across subregions would be expected. This would be consistent with the behavior of smaller, more or less independent polities, one emerging slightly earlier than another. No evidence has emerged for paramuncy at that time. The multidimensional and primarily residential data from the northern Channel Islands are fairly clear in showing that chiefdom-level political and economic organization emerged in the islands during the Transitional period (A.D. 1150–1300; Arnold 1992a, 1995, Arnold, ed. 2001; Arnold 2001). The data from the Ventureño mortuary record at Malibu are, in our view, not suitable to shoulder alone the difficult task of tracing the rise of a chiefdom, but the presented data may in fact appear consistent with a roughly Transitional date (see below) for the appearance of political entities we can call “chiefs.” Specifically, the development of chiefdom-level political complexity seemingly occurred among the mainland Ventureño at some point *after* the Middle period (after A.D. 1150), and thus, in the end, more or less concurrently with such developments on the islands according to a rereading of the *politically relevant* data presented by Gamble et al. (2001:207).

More specifically, the Island Chumash constituted a large, dense, and sedentary population, and they specialized extensively in lithic and bead manufacturing, exercising a regional monopoly in shell bead making from ca. A.D. 1150 or 1200 to the early 1800s (Arnold 1992a, 1992b; Arnold and Graesch 2001; Arnold and Munns 1994). A broad spectrum of evidence, including data drawn from climatic studies, settlement disruptions, abundant craft manufacturing by-products, faunal and paleobotanical analyses, human osteology, and more (Arnold, ed. 2001; Hollimon 1990; Lambert 1994) shows that

profound changes in Channel Islands political and economic organization and exchange relationships occurred at A.D. 1150–1250. Conversely, the Malibu cemetery data do not generate a sharp portrait of a chiefdom society in either represented period (Middle or Historic), likely for reasons relating to complex mortuary practices, difficulties entailed in interpreting them, and Historic-era cultural changes. The earliest appearance of chiefs and their kin may be far more difficult to detect among the Ventureño, using solely cemetery data, than previously thought.

The second principal issue we address in this discussion is that multiple complications exist with the mortuary assemblages from Malibu. The most deep-rooted problems relate to (a) the recovery and curation of the collections; (b) how subadults were treated in Ventureño Chumash mortuary practice (and thus how they are interpreted); (c) to what degree historic disturbances of Chumash society affected the Malibu Historic cemetery; (d) how specific artifacts such as shell beads are incorporated into such analyses; and (e) whether, knowing what we do about inheritance and the local mourning ceremony, the Ventureño Chumash (or any of the Chumash groups) symbolized “wealth” and leadership at all—or in comprehensible ways—in their burials.

Chiefdoms as Political Entities

The essence of a chiefdom is its political structure (more precisely, its political economy), marked by hereditary leadership and the ability of that leadership to control the labor of many members of society (Ames 1995; Arnold 1996a, 2000a, 2000b; Arnold, ed. 2001; Hayden 1994; Johnson and Earle 2000; Marquardt 1988). Forms of political organization less complex than chiefdoms clearly acknowledge social ranking and lineal descent without having formal hereditary leaders. Gamble et al. (2001) imply that a society that marks lineal descent in graves is also marking (a) ascribed status and wealth, and (b) inherited formal offices of chiefs; neither is necessarily true. Indeed, societies that are populous, sedentary, situated among relatively bountiful food sources, and socially and religiously complex, all of which describe the coastal Ventureño, Barbareño, and Island Chumash at least as early as A.D. 500, would be strongly expected to have developed lineally structured territorial ownership and exclusive rights to certain resources and ceremonies (Wolf 1999). Sharp social segmentation and property own-

ership would likely find expression in mortuary practice in the form of differential types and amounts of grave goods. There is social rank aplenty among big-man-like societies of these types, but there is no permanent, hereditary leadership (compare highland New Guinea [Feil 1987]; see also Schulting [1995] on the Plateau of the North American Northwest).

Social differentiation is an essential underpinning of political complexity, but it is not, of course, the same thing, and Gamble et al. sidestep this crucial distinction. The Island Chumash simple chiefdom organization that began to emerge ca. A.D. 1150 and endured into the Historic period had each of these social/religious characteristics and *also* new political leaders at the apex of political economies marked by complex labor relationships, including extensive occupational specialization and intraregional coordination (Arnold 1987, 2001). The politically relevant data presented by Gamble et al. themselves (2001:207) appear to show that this political transformation also occurred sometime after the terminus of the Middle period at Malibu.

Recently reviewing primary materials on archaeological and ethnographic chiefdoms around the world, we found very striking the small size of many chiefdom territories, particularly in island and coastal areas. Chiefdoms often occupy less than 250 km² (100 mi²). This pattern lends credence to the idea that Santa Cruz Island alone (257 km²), or the northern Channel Islands as a group (roughly 515 km²), or the area occupied by the Ventureño Chumash alone (at least 1,400 km²), for example, could each easily have been the territory of an independent small chiefdom. These zones had substantial populations (perhaps 1,700–4,000 people each) who spoke mutually unintelligible languages. They were not just the same people in different portions of a territory divided by colonizers; they were distinct groups. This is important because it allows us to consider the fairly strong possibility that these areas had interrelated but not identical political trajectories. Certainly the ways that people came to specialize economically within these zones were substantially different (Arnold 2001). Recognition of this possibility means that relatively complex polities could have arisen earlier on the mainland than on the islands, or, alternatively, earlier on the islands than elsewhere, perhaps in part because of the different local ecosystems or the different level of dependence on expensive, elite-owned canoes for trade and transportation (Arnold 1995,

2001; Pletka 2001). In addition, Malibu may also have been subject to unknown borderland effects since it was located at the Ventureño Chumash/Tongva cultural boundary. We simply do not know how relevant the data from the Malibu geographic area may be in assessing the precise timing of political changes among the Channel Islanders, the Barbareño, or other Chumash subgroups. It is essential to recognize that only if these subgroups moved (culturally) in absolute lockstep would the one set of data be pivotal in discrediting, fine-tuning, or supporting the other.

In their examination of the Malibu cemeteries, Gamble et al. note a few important differences among the dominating similarities that drew most of their attention. For instance, the percentage of burials with artifacts in the Historic period doubled compared to the Middle period, and at the same time a substantial decline occurred in religious objects in the Historic cemetery (seven times fewer). It could be suggested (and we are not the first to do so) that the limited evidence for “wealth” in the Middle period cemetery may have been associated with leaders who were shamans and big men rather than chiefs. Several individuals, in sequence, may well have been at the apex of the Malibu village in the prehistoric period, but we must consider with care what powers they seem to have possessed and whether such powers were necessarily or clearly expressed in their grave accompaniments. Perhaps tellingly, in the prehistoric cemetery there are no plank canoe parts, which were a key indicator of leadership and probable wealth in many Late and Historic cemeteries in the region (Green 1999). Indeed, to reiterate one of our key points, few of the recovered and reported data point to centralized *political* leadership in the Malibu prehistoric (Middle period) cemetery.

Gamble et al. (2001:203) acknowledge that “wealth” items and religious items are routinely found in separate burials in other Middle period cemeteries in the area. This is a crucial piece of evidence. Indeed, the separation of religious artifacts and “wealth,” once we develop reasonable confidence in these correlates, would point strongly toward a *different form of leadership than found at contact*. There might have existed competition or occasional collusion between two or more charismatic leaders of different types, constituting what Spencer (1993) and others call sequential rather than simultaneous hierarchies, and this would not have

been a chiefdom. Significantly, Gamble et al. (2001:207) observe a clear change in leadership between Middle and Late Ventureño Chumash society. The Middle period grave goods suggest competing or unaligned religious and political leadership, whereas the Late period grave goods indicate leadership united in single personages, likely consistent with chiefly power. This is precisely what one would expect to see if chiefdom-level complexity emerged during the intervening Transitional period.

The Cemetery Data

Long-Term Similarities in Cemetery Features

We suggest that the many similarities Gamble et al. cite at length for the Malibu prehistoric and Historic cemeteries can be attributed largely to mortuary practices of a population whose members in both periods experienced village life in the same fairly big, sedentary community, whose descent was recognized principally matrilineally, who were *socially* complex, and who had well-defined property inequities that probably reflected ownership of important resources. These kinds of societal and mortuary characteristics can be found among many tribal, big man, and chiefdom societies (compare, for example, the diverse polities representing several kinds of complexity in the later American Southwest [e.g., Lightfoot and Upham 1989; McGuire and Saitta 1996]). Such characteristics do not define mortuary practice for any one “type” of society and cannot be simply equated to simple chiefdoms. Distinctions specifically attributable to higher levels of political elaboration (i.e., the emergence of formal, ascribed leadership) need to be filtered from such background commonalities, which seemingly will require thorough assessment of a broad range of cemeteries in the Chumash region, including Early and Late period examples.

Limited Confidence in the Mortuary Data from Malibu

There are undoubtedly strong messages to be found in mortuary data, and efforts to tie archaeologically visible mortuary practice to past social organization are worthwhile. Still, our limited understanding regarding where the Chumash chose to bury all of their dead and how often and for whom certain mourning ceremonies were carried out diminishes the confidence with which any scholar can interpret

political complexity using Chumash cemetery data. Ascribed and achieved leadership and wealth are notoriously difficult to unravel in mortuary contexts (Wason 1994:100). Global surveys of ethnographic data from chiefdoms repeatedly show that individuals up and down the ranks may have all of their material goods stripped away during mourning ceremonies. Among the chiefly Badagas of south India, all jewelry and ornaments are removed from the dead and given to someone in the bereaved family, leaving only a single finger ring on women (and none on men [Hockings 2001]). Just one or two coins wind up with the dead, and all of the ritual investment is in pre-interment or pre-cremation ceremony rather than in goods. Among the Trobriand Islanders, men of many ranks were buried with essentially no goods. Malinowski (1922:plate LXV) notes, "A great number of valuables, including large axe blades, with which [a] man was covered at dying, have already been withdrawn. Only personal possessions are left on the corpse, and *they will be removed immediately before the interment*" (emphasis added). Inheritance of valued property of the deceased was responsible for similar patterns (virtually no grave goods) in Tikopia (Firth 1936:345), and an interest in disposing of dangerous possessions of the dead through burning and giveaways rather than interment with the owners characterized the Makah of the Olympic Peninsula (Colson 1953:274). Citation of ethnographic cases could go on endlessly, but the point is that big-man and chiefly societies do not exhibit universal mortuary patterns. Ambiguity is rife, and more attention needs to be paid to complexities associated with the inheritance of property and with pre-interment ceremonies that withdraw the valued goods of people of higher and lower ranks.

Excavation histories and the reliability of mortuary records from this region's sites are highly variable. Under the circumstances, Gamble et al. make good progress, but are the data sufficiently robust to support their arguments? First, as is widely recognized, the Chumash also buried people in the floors of their houses (especially so in the Historic period), meaning that cemeteries only contain some unknown sample of individuals from the village population. Little is known about the burial of very poor or disenfranchised people. We cannot be sure, given the costs of burial, that they are represented in the cemeteries. And here we must not make or accept the circular argument that the people without goods in the

cemeteries *are* the poor people.

Second, despite an extended discussion, Gamble et al. (2001:190–192) are unable to provide resolution to the conundrum regarding the extent to which lifetime possessions of the deceased (as a rough index of wealth, and thus status) were proportionately represented in Chumash graves. They bypass the full implications of the ethnographic data on the mourning ceremony, which indicate that the personal belongings of the highest-ranked men were destroyed. Nothing in the recorded ethnohistoric remarks suggests that property of these individuals was *divided* for use between the mourning ceremony and interments. In fact, in some cases mourners burned the deceased's house or burned his clothing and other belongings in a fire in the center of the house. There is, thus, evidence that goods were disposed of in myriad ways but not evidence that there was selective use of goods in the grave deposits of high-status individuals. Also, to the best of our knowledge, there are no known Historic cases cementing the relationship between high-status Chumash males or females and the number of goods buried with them. That is, no burials of persons of known status were observed in the early contact period with those persons having been subsequently exhumed. Thus, it cannot be claimed that because some men had more goods than others, these were the men of higher status, or that numbers of goods interred were not notably lessened by the burning of possessions in ceremonies. Gamble et al. here assume what has not been demonstrated.

Many key possessions were withheld from burial and burned during the mourning ceremony, which was held separately from the interment process. Other community members deposited beads *from their own supplies* with persons being buried, both of which would have profoundly affected how much and what kinds of goods wound up in graves. These cannot be dismissed as having little effect on Chumash mortuary practice or our understanding of it. Indeed, given the latter phenomenon (independent contributions from the community), we find that virtually every burial at Malibu has surprisingly few beads and little other material, and we suspect that many of the deceased's possessions were indeed withheld from burial for the mourning rites and/or for the purpose of passing them on to descendants. A single string of beads, depending on type, may have consisted of up to 2,000 beads, so virtually every Malibu grave analyzed contained

very low numbers of beads and other goods compared to what we would expect if even a few personal (or community) possessions were interred. The numbers are exceedingly incongruous if some representative sample of lifetime acquisitions was interred. Destruction and inheritance of possessions may have played a far larger role in the region or subregion than has been recognized.

Third, Gamble et al. omit reference to the quality of the data collection and retention at Malibu. There are missing records, missing burials, missing bones, missing artifacts—and lots of them. The excavations, record-keeping, and curation were handled some 30 years ago, guided by the sometimes expedient practices of that era. Although Gamble et al. mention that only a portion of the prehistoric cemetery was excavated, they underplay the impact that this has had on comparative analysis. The prehistoric cemetery produced 90 individuals of an unknown total, and of these, 51 could be used for most analyses. The rest were excluded from maps and some analyses because they lack age, location, and/or artifact information. Gamble et al. cannot be blamed for the condition of these old records and collections, but the problems associated with the collections do cast a bit of a shadow on interpretations, since so much information was never collected or is missing. Because the excavated portions of the cemetery were not probabilistically recovered, it is inappropriate to conclude that what is missing is represented by what was excavated. Incomplete cemetery data without knowledge of the extent to which the population has been truncated leads to all manner of speculation that can never be properly settled. They could guess that there might be only a few more burials and that these would fall in line with the rest of the cemetery population. We could speculate that the cemetery may have been halved or that some specific grouping of individuals or artifacts is undiscovered, no matter how few in number. In the end, we cannot say with any certainty which speculations might be true. More to the point, however, is assessing the impact of missing data on the statistical validity of tests performed on the population. In essence, we are presented with an artificial sample of the prehistoric cemetery with no rationale as to how the sample was selected or what percentage of the population is present. While the prehistoric Malibu cemetery is useful for recording the presence of certain traits and artifacts, we cannot infer anything from their absence.

Dating of the Prehistoric Cemetery

The prehistoric cemetery is assigned to the terminal Middle period (A.D. 950–1150) based on an uncorrected 1970s radiocarbon date and King's (1990) artifact typology. The radiometric date is equivocal for two reasons. First, the now-defunct lab¹ had technical problems and did not always produce reliable dates. In retrospect, and with more information at hand, some of the dates appear fine; others do not. Only submission of multiple new dates to a modern lab can ensure accurate and more comprehensive dating for this important site. Second, the single date was on a bone collagen sample, typically problematic in the 1970s. Regarding relative dating by bead types, King proposed that all beads of a certain type—*Olivella biplicata* split-punched beads—were associated with phase 5c of the terminal Middle period (A.D. 1050–1150). However, recent research on the Channel Islands has indicated that split-punched beads also continued to be used into the Transitional period, until approximately A.D. 1250 (Arnold and Graesch 2001). If this and certain closely associated bead types were used to date the cemetery, some Transitional period burials at Malibu may have been classified as Middle period. Gamble et al. do not discuss any of the bead types in their analysis (see below), so we can only guess at specimens in the assemblages. The absence of artifactual data precludes independent evaluation of the relative dating of the cemetery.

Clustering

The skeletal data and the clustering of biologically related individuals in certain sectors (Gamble et al. 2001:203–205) are interesting, and we concur with the authors' contention that these patterns may demonstrate strong lineality and strong kin-based relationships. This does not necessarily constitute evidence for a specific set of relationships *with hereditary chiefly leadership*, however. The bone spur data set, showing that during the Middle period the people with the most goods were hard workers, may conform well to expectations associated with big-man societies marked by tremendous competitive pressures. In such a case, those with achieved status and greater concentrations of items in burials might have been those who put in the work to recruit more followers, who fished more, tried to show off more, and competed more. Alternatively, those with the most

goods could have been hard-working, middle-ranked people (whereas the higher-ranked men's goods were inherited or destroyed after death). Either way, the observed correlation of physical exertion and more goods would generally not be consistent with expectations for hereditary chiefs.

With regard to apparent clustering based on artifact distributions, Green (1999) has analyzed the Historic Malibu cemetery in depth, and as a result, we cannot agree with the suggestion that the noted clusters represent chiefly lineages. The authors state, "With one exception, all of the people with more than 1,000 beads are clustered in the southern area of the cemetery" (Gamble et al. 2001:196). But it should come as no surprise that graves with modest or more sizeable quantities of beads spatially cluster because the subadults in this cemetery, whose mean and total number of artifacts (mostly beads) were consistently higher than those for adults, were clustered. In one statistical test after another (histograms and *t*-tests to search for multi-modality, chi-square tests on numerous aspects of burial treatments, and statistical spatial analyses), Green's examination of variables revealed that there was a statistically significant division between the treatment of adults and subadults, including artifact quantity. This was the most robust and prevalent result in over 100 separate statistical tests performed (Green 1999). Comprehensive sets of numerical assessments are required to thoroughly dissect such a complex data set.

Looking more closely at this distinction on the basis of age in gross terms for the Malibu Historic period cemetery, subadults account for approximately 37,571 artifacts (in the graves of 46 individuals) while adults account for 20,276 artifacts (in the graves of 74 individuals). Chumash ethnography informs us that a system of inheritance was in operation during the Historic period (Harrington 1929). However, we also know from ethnography that personal property was not only inherited by children but also by other relatives, and that inheritance could even be extended to guild or society brethren (Hudson et al. 1978). In addition, at least some portion of (and in some cases all) personal property was destroyed at death in several different ways. But even if we were to assume that inheritance was practiced in family lines, primarily from parent to child, it would mean that the bulk of wealth (though not necessarily all) would go to the heirs and not necessarily into the grave (Chapman and Randsborg 1981:13;

Shepard 1979:58). Although a child may inherit the wealth or status of the parent, the inheritance does not typically pass to the child until the death of the parent. In addition, as Jorgensen (1992) demonstrates for other culture areas, the child whose death is of decisive importance *and* who terminates the line of inheritance (no surviving siblings) may be given an unusual burial. Jorgensen also shows that adult burials may reflect a paucity of artifacts that confer status and wealth since these may have been largely inherited by their children. Thus, the identification of inherited wealth is much more complex and problematic than many analysts assume. Also critically important here, as O'Shea (1996) points out, significant "wealth" is found with subadults in cemeteries of many societies in which sociopolitical hierarchy is absent. Expressions of wealth in burials are very complex; wealth with children does not equal status ascription.

As far as we are aware, no one other than Green (1999) has used statistical clustering techniques on Chumash mortuary data. Green's numerous applications of clustering (*K*-means and hierarchical) reveal an absence of statistically significant clusters of individuals in the Historic Malibu cemetery. There are probably several processes at work preventing clustering, one of which is immediately evident—the subpopulations are not homogeneous with respect to artifacts. For example, there is considerable variability in artifact types interred with males, and there is significant overlap with females. In short, males and females were both buried with a wide range of artifact types, and no artifact types stand out as exclusive to either group.

Other Factors in the Cemetery Data

The limited data presented (*n* is rarely provided in the article) do not permit an assessment of the numerical techniques employed. Moreover, a particularistic dependence on outstanding individuals (e.g., Gamble et al. 2001:198; Burial 56, "possibly a chief") to bolster the argument for ascribed status, rather than searching for broad and statistically significant patterns, privileges certain data over others. In any case, this particular burial was not without interpretive difficulties. The grave lot, as originally reported, included the remains of *three individuals*: the upper deciduous incisors of an infant (age 0 to 1 year), a male adolescent cranium (age 19), and the nearly complete skeleton of an adult male (Walker

et al. 1996). Individual (or idiosyncratic) data points are often subject to speculation and dispute and, while significant, perhaps ought not to be used to infer much about Chumash culture writ large if they have no parallels.

Historic Disruptions

During the 30-year period when people were being buried in the Historic Malibu cemetery, many Ventureño had become laborers, ranch hands, and farmers, and they had adopted European clothing and implements; the economy was heavily disrupted. Thus, we are not able to observe the burial practices of a pristine society that still operated as a simple chiefdom (see below). The Ventureño were subservient to a European world economy, and former chiefs may have had little or very different kinds of economic or political power in that new world. We simply do not know how Ventureño society was operating, but it is a safe bet that some overall devolution of Chumash complexity and disruption of status relationships occurred, and the loss of power by chiefs would have diminished their authority. (In this era, the distant Island Chumash were very different, and far less affected by mission life [Arnold, ed. 2001].) Thus, the “signature” of the Historic Malibu cemetery as a reference point from which to judge the Middle period cemetery is inherently ambiguous.

Data Analysis: Numbers of Beads

Throughout the discussion, Gamble et al. tally “numbers of beads” to indicate the relative wealth of individuals. In a region where a single bead type predominated, this would be appropriate. In the coastal and island areas occupied by Chumash groups, where about ten major bead types and another two dozen rare bead types were used at contact to communicate many kinds of essential social and political information and to govern exchange as standards of value (Arnold and Graesch 2001; King 1990), this is tantamount to estimating how much money we have in our possession by counting the total number of coins and bills rather than assessing the value of the pieces. Individual A has three \$50 bills, while B has 14 dimes and one \$1 bill. Does B carry five times the money/wealth of A? Quite the contrary, of course, but this is how the Chumash “wealth” data have been analyzed by Gamble et al. Chumash shell and stone beads differ widely in the labor invested in their manufacture and thus, at least

somewhat proportionately (based on both solid ethnographic data and modern suppositions about labor investments), in their estimated and reported values (Arnold and Graesch 2001; Hudson and Blackburn 1987). For instance, one *Tivela stultorum* (Pismo clam) tube bead, a very rare type and one very energetically costly to shape and drill, may have been equivalent in value to dozens or even hundreds of *Olivella biplicata* wall disk beads.

Especially within any given single-shell material type, labor investments in production diverged significantly and clearly entered into people’s conception of their relative values in some way. For instance, *Olivella* split-punched beads were made by roughly chipping the perimeter of a shell wall, then punching a rough hole through the middle; no drilling or grinding was performed. Ratcheting the labor up to another level, *Olivella* wall disk beads required far more chipping to create a round wall blank, then they were neatly drilled, and finally the perimeters were ground down to create a smooth, fine edge. Far more costly still from a labor standpoint, *Olivella* callus disks were made from the thick columella area of the shell and were considerably harder to chip, drill, and grind. Although precise determinations of relative value present a challenge, some data do exist (Hudson and Blackburn 1987; Macko 1984), allowing us to proceed in this direction. While we are well aware that this line of argument can be seen as thrusting Western economics into a discussion of non-Western perspectives, we have little doubt that the Chumash, who were known to have carefully calculated the value of many of their bead types relative to one another and to other goods (and to Spanish goods during the early Historic period), actually practiced transactions and conceptualized some if not all of their manufactured goods in something approximating this way. Thus—and we cannot emphasize this enough—common and more easily made beads, beads that served as standards of value, rare beads, and very difficult-to-make beads clearly ought not to be lumped together given that they all had different standing, uses, and meaning for their users. If an analyst’s goal is to assess the relative value of grave accompaniments, the wealth of the deceased, or anything of the sort, some differentiation of beads of different types and gross values is important.

Moreover, Gamble et al. (2001:192) lump beads and ornaments. Green (1999) has addressed the issue of beads and ornaments in a detailed analysis of the

Malibu Historic and Medea Creek cemeteries. Principal component analyses (PCA) performed on some 82 artifact types for the Medea Creek and Malibu cemeteries, where all material types were separated (including shell species) and where ornaments other than beads were also a separate artifact type, showed that most beads were not associated with ornaments. This is particularly true for the Medea Creek Late/Protohistoric cemetery (Green 1999:Fig.19), where only a few bead types were associated with ornaments, while glass, stone, clam, *Mytilus*, and *Olivella biplicata* beads were associated with one another but distinctly separate from ornaments. The same lack of association holds for the Historic Malibu cemetery (Green 1999:Figure 20), although close artifact groupings and associations broke down in this cemetery. In general, the analysis points to artifact deposition and burial treatment becoming less structured at Malibu, a departure from the pattern at Medea Creek. Thus, actual artifact grouping and patterning does not support the identification of the majority of beads (including *Olivella biplicata* and glass beads) as "ornaments."

With respect to the association of beads, or any artifact, with relative "wealth" in a mortuary context, Green's analysis also points to the fact that although we may wish to assume that the presence of a "rare" artifact in a grave is an indication of wealth, it clearly does not match with another presumed indicator of wealth, abundant grave goods, in Ventureño graves (Green 1999: Table 109). Such results point either toward the interpretation of these rare artifacts as nonwealth items or the interpretation that the Ventureño Chumash did not symbolize wealth or status in discernable ways in funerary treatment. If, however, we use any rare artifacts possibly to infer wealth, the only two that should be employed in the Medea Creek and Malibu Historic cemeteries would be certain bead blanks (e.g., Pismo clam blanks) and plank-canoe evidence.

A recent, preliminary extension of this analysis to include a Santa Cruz Island cemetery (Posa; SCRI-474) underscores the differences between populations within the Chumash region. Very different patterns are observed for rare artifacts and abundant grave goods in this Santa Cruz Island mortuary population. Whereas the analyzed mainland Ventureño cemeteries (Late period Medea Creek and Historic period Malibu) exhibit low levels of economic stratification and few rare artifacts associated with wealth

or status, the Late period component at Posa may indicate a highly stratified mortuary population, with several rare artifacts consistently associated with well-equipped graves (Green 2002). Importantly, and as would have been predicted for the islanders based on residential data (e.g., Arnold 2001), the Middle period component of the Posa cemetery exhibits little stratification.

Mission-Era Data and Archives

Gamble et al. place considerable stock in the precision of explorers' reports and ethnographic data, perhaps more than most scholars. We recognize the many exceptional dimensions of the region's ethnographic record, and we are firm believers in using historical and ethnographic data to help in the construction and assessment of archaeological models (see Arnold 1996b). However, their initial look at data on Chumash "chiefs" in historic texts, for instance, appears rather uncritical. We would suggest that because, by definition, no chiefdom has single villages with the "3 or 4 chiefs" mentioned in one of the passages they cite, a chief to early observers must have described a *different kind of leader*, perhaps an important elder or lineage head in a village. Thus, while the quote refers to leadership of some kind, it does not reliably refer to chieftainship, a key distinction.

The practice of using textual data to generate hypotheses regarding material culture is standard practice in historical archaeology when the two data sets are roughly contemporaneous, sequential, or closely related (Little 1994). But to observe social and economic symbolism in one period and then use that information to generate a set of hypotheses in order to test socioeconomic data in a much earlier period may somewhat stretch the bounds of the direct historical approach. The use of ethnographic and historic data may be further complicated because little information is available regarding specific subgroup affiliation for some historic informants. Recent evidence suggests that Chumash subgroup affiliation may be critical in assessing the relevance of specific data to any given discussion (e.g., Haley and Wilcoxon 1999). Only a few of the ethnographic and historic accounts are directly from the Ventureño.

However, most important in determining the applicability of Historic-era data to the discussion at hand is the nature of the Historic Malibu cemetery itself. The Historic cemetery at Malibu was used during the California Mission era. The experience of the

mainland Chumash and their neighbors in the mission system has been the subject of numerous studies, only a fraction of which can be noted here. These include archaeological studies of acculturation (e.g., Farnsworth 1987), anthropological studies of mission documents (Johnson 1988), demographic studies of population decline (e.g., Jackson and Castillo 1995), Native American commentaries on all of the above (Costo and Costo 1987), and firsthand observations of early Europeans and the surviving Chumash (e.g., Harrington 1929). In general, we can characterize this period as one of upheaval and change in mainland Chumash culture, brought on by an abrupt onslaught of disease, technology, and agendas of acculturation. Survival in both physical and cultural terms was accomplished with the type of syncretism that is the hallmark of many culture contact situations. Indeed, the main thrust of Green's (1999) research was to show that Chumash mortuary practice at the Historic Malibu cemetery did not survive unchanged. While some broad patterns of continuity in mortuary behavior were identified, there were also significant disruptions in Ventureño practices from the Late to Historic periods, including those involving grave goods. The Historic Malibu period cemetery serves well for investigating hypotheses regarding culture contact but, for this same reason, it is not a good candidate for projecting postcontact patterns into prehistory.

Conclusions

Several of the continuities identified by Gamble et al. (2001:208) in social and community life among the Ventureño Chumash from ca. A.D. 900 to 1800 appear quite real, and we observe some of these in nonmortuary data from Island Chumash sites as well (Arnold 1987, 2001a). Tellingly, though, Gamble et al. do not mention "political" continuity across this span, and it is on exactly this point that the argument about the origins of chiefdoms hinges. They contend at the start that a "chiefdom" emerged well before the terminal Middle period, but in the end, they advance no evidence for hereditary chiefly leaders or political centralization until following the abandonment of the terminal Middle period cemetery. We see no evidence for either the economic or political trappings of a chiefdom in the Middle period Malibu data, and neither, apparently, do they, for their summary makes no mention of such phenomena. There is nothing in the prehistoric cemetery that

seems inconsistent with big-man organization. For that matter, there is not much in the Historic cemetery that would point strongly to chiefdom organization, perhaps because (a) the Ventureño Chumash did not place much wealth in their graves even when there were strong wealth disparities among the living (due to the mourning ceremony, inheritance, and/or other practices), and/or (b) Historic Malibu society was already affected notably by the European intrusion. But there are some important and under-reported differences in the cemeteries, too.

Green's (1999) detailed analyses led to several key observations, the most significant being the markedly different treatment of adults and subadults in almost all respects, in both a pre- and post-contact Ventureño cemetery. Such a result may argue for cultural continuity, but little or no local ethnographic material speaks to subadult burials to help interpret this. Inheritance outside of family lines, goods flowing to living heirs, the destruction of the deceased's personal property, and rare artifacts interpreted as valuables are just some of the factors that complicate the interpretation of grave goods. Conversely, as evidence that both broad and specific disruption of mortuary patterns occurred at contact, the Historic Malibu cemetery indicates a new gender-based distinction in artifact quantity and spatial arrangement. Greater numbers of artifacts with males than females in the Historic cemetery may indicate that men may have begun to differentially accumulate goods after ca. A.D. 1770, or may indicate that men's mourners practiced fewer of the traditional funeral rites that would have disposed of possessions outside the grave. Viewed in their entirety, the majority of the analyses indicate disruption and a program of burial treatment that became less cohesive after contact. More patterns argue for discontinuity than continuity.

Gamble et al. (2001:188) state, "If the hypothesis of a Late [*sic*] [should read *Transitional*] period transition to a chiefdom level of social organization is correct, then we would expect to see evidence of this in burial practices . . . the Malibu cemeteries should differ in ways that reflect the emergence of the ethnographically documented social hierarchy based on ascribed status that characterized Chumash chiefdoms" [clarification added]. They ultimately reject that hypothesis because they do not detect important changes between the Middle period and Historic Malibu cemeteries. However, even if there were no differences, it is logically incorrect to infer

that therefore a chiefdom polity was operational through the two periods, and, for reasons we have discussed, it is also incorrect to extend the inference to other subregions. Problems including the conflation of social elaboration and ascribed political leadership, an underestimation of European disruptions, and myriad difficulties in interpreting wealth in Ventureño graves mean that chiefdom-level integration has not been substantiated for the Middle period cemetery at Malibu.

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Note

1. The UCLA radiocarbon lab, formerly part of the Institute for Geophysics and Planetary Studies.

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