Excavations at Shilimaqshtush: SBa-205. *Donald W. Lathrap* and *Robert L. Hoover.* San Luis Obispo County Archaeological Society *Occasional Paper* No. 10, 1975, 127 pp., 1 appendix, 30 illus., 49 tables, $7.50 (paper).

Los Osos Junior High School Site 4-SLO-214. *Robert L. Hoover* and *Col. W. B. Sawyer.* San Luis Obispo County Archaeological Society *Occasional Paper* No. 11, 1977, 54 pp., 1 appendix; bound with Obispeño (Northern Chumash) Placenames from the John P. Harrington Notes, by Kathryn A. Klar, $5.50 (paper).

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These two reports both follow the traditional archaeological "site report" format, having sections on nature of excavations, stratification and feature descriptions, artifact descriptions, and conclusions, the latter relatively brief. Both contain appendices by other authors. Georgia Lee, Travis Hudson, and James Moriarty each contributed interpretations of a presumably historic Chumash pictograph resembling an 18th or 19th century European or American sailing ship located at a site near Jalama Beach. Appended to the SLO-214 report is a cursory faunal analysis by Aryan Roest, and bound with this same report is Kathryn Klar's brief addendum to Richard Applegate's "An Index of Chumash Placenames," in which she provides a listing of Obispeño Chumash placenames found in John P. Harrington's ethnographic fieldnotes.

The first report presents results of investigations at SB-205, the Purisimeño Chumash village of *Shilimaqshtush* located on the coast at Jalama Beach County Park, some three miles north of Point Concepcion. This site was excavated in 1950 under the direction of Donald Lathrap, and this report is the first published results of the research.

One of the tragic shortcomings of data from this site results from no screening of the deposits. Lathrap indicates his regret at not having screened, a practice not so strongly advocated in 1950 as it is today. Another serious data deficiency is the lack of faunal remains of any sort in the collection. Although collected, they were no longer available for the analysis.

Apparently because of the considerable time lapse between collection and analysis, a number of discrepancies exist in the data presentation. In the burial plan drawings, the precise provenience within the units is not always given, nor is there a scale(s). Moreover, the feature descriptions and accompanying plan drawings are a bit of a disaster. Some of the features lack plan drawings, and many of the feature plans that are presented lack adequate legends. In addition, reference datums for depths are lacking, and items mentioned in descriptions are not always identified on the plan drawings. Another problem is the curious discrepancies between the feature descriptions and associated plan drawings. For instance, the described extent of Feature 12 does not fit with the extent depicted in its plan drawing, and it appears that the Feature 15 description goes with the Feature 14 plan. The relationship between these two features is further confused by the statement that one appears to be a continuation of the other, yet they occur in units that are approximately 400 ft. apart! The full extent of a large portion of a house floor (Features 11 and 26) and its relationship to fragments of other floors stratigraphically above and below is also unclear.

Recessed into the most extensive house floor discovered in a block exposure were a series of ten pits, most of which have slightly undercut sides and all but two (?) of which had fired clay walls and asphaltum-lined bottoms. Although previously reported Chumash house floors have subfloor pits, the SBa-205 examples appear wholly unique. The authors

believe they were storage pits, and they argue that they indicate "large quantities of economic surplus—mainly foodstuffs—which were stored for future use by individual families and perhaps also on a communal scale by a chief or wot. Such material evidence substantiates the presence of both secular and political types of economy among the Chumash . . ."

This is a rather broad logical jump from data to inference. In the first place, there is no evidence other than formal characteristics of the pits and their context within a house floor that they were actually used for storage. Second, the amount of storage represented by the ten pits is probably no more than 50 cu. ft., a volume that does not appear to be any more than what is needed by a nuclear family for annual storage. Bean and Saubel (1961:243) reported that a nuclear family of Cahuilla would collect about five or six hundred-pound sacks of acorns, which would probably be roughly comparable in volume to the total for the pits. Finally, as is common knowledge in economic anthropology, storage does not imply surplus, nor does it necessarily imply complex social or political organization (Harris 1959:196-197).

Although there are difficulties in understanding some of the artifact type descriptions, Lathrap and Hoover to their credit list the unit and depth of every artifact in the collection, a practice that should be more of a standard than it is currently. The most distinctive aspect of the artifact assemblage from SBa-205 is the great abundance—about 350 specimens—of large, roughly flaked bifaces or, as Lathrap and Hoover call them, "blades." (They are not blades in the sense of elongate, parallel-sided flakes.) These large bifaces, referred to as "preforms" by Spanne (1975), are equally abundant in some of the coastal sites north at least to Point Sal (Glassow, Spanne, and Quilter 1976); however, they are not reported for sites south of Point Concepcion. Thus, SBa-205 may be the southernmost site exhibiting this industry.

The author's description of how the bulk of the large bifaces were manufactured—that is, from large flakes struck from prepared cores—appears to be in error. Actually the great majority in the assemblage as I know it are manufactured from tabular pieces of Monterey chert that naturally have the thickness of the finished tool (about 2 to 4 cm. thick). This procedure also typifies the majority of such bifaces from sites on Vandenberg Air Force Base to the north.

The chronological interpretations for the site are based primarily on a marked stratigraphic contrast between a firmly-packed, indurated lower stratum and a friable, sooty upper stratum. The authors also note that bifaces are more abundant in the lower stratum whereas most other classes of artifacts are more abundant in the upper stratum. Presumably based on the presence of such time-marker artifacts as small projectile point types (arrowpoints), shell fishhooks, and mortars and pestles, as well as midden and feature characteristics, the occupation represented by the upper stratum is believed to have occurred "immediately before and after the arrival of the Spanish in 1769." The occupation represented by the lower component is also thought to have been relatively late—that is, "within the late prehistoric period"—although the basis for this inference is less apparent.

There is reason to suspect that the occupation sequence at this site may actually be considerably more complex. To understand the nature of this complexity, one must first recognize that the beginning of the late prehistoric period is most appropriately placed at ca. A.D. 1000, a temporal division not recognized in Lathrap and Hoover's chronological chart. King (1974:79; 1978:58) and Gibson (1975) have referred to this period following A.D. 1000 as the Late Period or Late Horizon (see also Wallace 1955, Johnson 1966:19). It is

defined by such time-marker artifacts as olivella callus beads, small concave-based and leaf-shaped points (arrowpoint sized), circular fishhooks with divided shanks, and flat-lipped, shaped mortars. Prior to A.D. 1000, callus beads are absent, points are normally larger and often have contracting stems, fishhooks are J-shaped with simple shanks, and mortars have rounded rims.

The most sensitive indicator of the post A.D. 1000 period would be the presence of olivella callus beads, but the collection from SBa-205 is too small (15 beads) for patterns to be discerned, their absence possibly being the result of chance.

Projectile points, however, are relatively abundant in the collection, and the depth distribution of the different types represented reveals some interesting patterns not recognized by Lathrap and Hoover. Small concave-based points, all of which are presumably arrow points (1.65 g. or less in weight), have an average depth of occurrence of 7.2 in. Contracting stemmed points, with an average depth of 16.7 in., and side-notched points with an average depth of 26.2 in., are large enough to be dart points. In addition, large leaf-shaped points, some of which are undoubtedly not projectile points, have an average depth of 17.5 in. The contrast in depths between the concave-based points and the larger points appears to reflect occupation both prior to and after A.D. 1000.

Similar contrasts in depths may be seen in the distributions of other potentially diagnostic artifact types. The circular fishhooks with divided shanks (Type 2) have an average depth of occurrence of 18.5 in., whereas the simple shanked J-shaped hooks have an average depth of 26.5 in. Similarly, mortar fragments showing "lipped rims" have an average depth of occurrence of 13.3 in., and all other mortar rim fragments, as well as globose and hopper mortars, have an average depth of 19.8 in. (Perhaps significantly, the only two manos in the collection come from depths of 25 and 37 in., the former definitely coming from the lower or indurated stratum).

Thus, the site appears to have been occupied both before and after A.D. 1000, and it appears that both periods are represented in the upper midden stratum since artifact classes definitely associated with the lower stratum have significantly deeper average depths (e.g., Type I blades from the lower stratum have an average depth of 37.4 in.).

The lower stratum may actually represent a third period, and indeed the chronology of the site may be even more complex than this. Side-notched points, for instance, occur on the average at significantly lower depths than stemmed points, the former which have been found to date approximately 4900 B.P. at the Aerophysics site on the Santa Barbara Channel (Harrison and Harrison 1966). Certainly there is little reason to conclude that all occupation at the site was very late, as implied by the authors. In fact, the stratigraphic relationships apparent in the distributions of artifacts at SBa-205 are similar to those discovered by Carter (1941) at SBa-125, a stratified site located approximately 50 km. north of SBa-205 near Point Sal.

The authors make much of the ideal environmental location at SBa-205, noting that the entire coastline between Point Arguello and Point Concepcion had "the heaviest concentration of offshore kelp beds within the mainland Chumash area." This is not actually the case, however, at least not at present. Although moderately dense kelp is present off the mouth of Jalama Creek, these beds do not compare in extent or density with those along the Santa Barbara Channel. Furthermore, there are broad stretches of coastline toward Point Arguello completely devoid of kelp. Point Concepcion is actually a much more appropriate dividing line between the quiet, kelp-filled nearshore waters of the Santa Barbara Channel and the rough waters with sparse

kelp along the exposed west-facing coastline to the north. This environmental contrast is consistent with the absence of reports by 18th century Spanish journalists of plank canoes north of Point Concepcion (Brown 1967:5-6).

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Hoover and Sawyer's Los Osos Junior High School Site (SLO-214) report is a result of salvage (mitigation) excavations at a site the authors believe to be the largest in San Luis Obispo County (only in terms of area, however, since SLO-2 at Diablo Cove [Greenwood 1972:5] appears to contain a substantially greater volume). A unique feature of the portion of the site at which excavations were undertaken is the presence of aboriginally made terraces on which rows of dwellings presumably existed. I am aware of only one other site in Chumash territory where terracing of this sort exists: SBa-210, the historic village of *Nocto* (Glassow, Spanne, and Quilter 1976).

The excavation was undertaken to mitigate the impacts of the construction of Los Osos Junior High School on the site. In terms of current statewide standards, however, one would hardly call the extent of excavation and analysis adequate mitigation. In the first place, the proportion of the area of impact excavated is very small—only 0.36 percent. Second, the authors were forced to use considerable amounts of volunteer labor and alternative sources of funding beyond the $1200 supplied by the school district, and the fieldwork had to be squeezed into a rather tight schedule, although additional time eventually became available to complete a profile trench. Third, data analysis was restricted to conventional artifact classification. And finally, the collection was eventually turned over to the local school district, a repository with a questionable, or at least undemonstrated, capability to maintain the integrity of the collection and provide access for future collections research. In sum, the constraints affecting this mitigation project are certainly regrettable, and considering the obviously great significance of the site, its sacrifice for the construction of an educational facility is both tragic and ironic.

Hoover and Sawyer's research goals were "to determine the extent of the prehistoric occupants' dependence on the local environment and the relative importance of each resource . . ." However, this goal is not addressed to any significant extent in the report. Moreover, the data analysis has little bearing on identifying patterns of resource exploitation. For instance, shellfish remains are presented only as a total weight per unit level, and the analysis of animal bone is barely more than a species list. The lack of quantitative analysis of faunal remains is especially frustrating in light of the mention in the section on stratigraphy of a shift from a predominance of mussel in the lower levels to a predominance of oyster in the upper levels of the site. Since shell and bone were reportedly discarded after analysis, there will never be a chance to reanalyze the faunal collection in more detail.

Excavations at this site consisted of 20 test units and a strata trench 18 m. long. The former were located using some sort of random sampling design (presumably simple random sampling, but this is not specified), and the latter was placed so as to crosscut at least one of the terraces in the area of the site having the highest density of cultural debris. Significant differences in screening procedures undoubtedly affected the frequency comparability of small artifacts and faunal remains. The use of quarter-inch and eighth-inch screen mesh sizes alternated between units and/or levels, whereas only eighth-inch mesh was used throughout the trench excavation. Since the screen size used for each unit or level is not listed in the report, the amount of bias cannot be estimated.

To the authors' credit, considerable detail on the well differentiated stratification of the deposits and its relation to the stratigraphy of

cultural phenomena is included in the report. Indeed, the use of long profile trenches for studying the depositional structure of stratified sites should be commended. The sequence interpreted for the features occurring in the profile trench is related by the authors to the less definitive data from the test units in order to produce a scenario of changing site use. In essence, the site was believed to have been occupied by an initial group of foragers, at a later period by permanent residents who were responsible for the greatest density of cultural remains as well as the terraces and a house floor, and finally by intermittent occupiers. Some of the more specific stratigraphic interpretations may be questioned, however. The separation in time of the first and second occupation is based solely on some rather shaky stratigraphic evidence that occurs only in the profile trench. In addition, the earliest feature in the trench, a depression containing ash lenses, is interpreted as being a temescal or sweat lodge. Considering that no clear evidence of an enclosing structure was found, this interpretation is highly speculative. Finally, the basis for the interpretation of intermittent single-activity occupation during the times represented by the uppermost stratum is not adequately presented. The evidence cited consists of "single use cooking fires which appear throughout Site 214." However, none of these is illustrated.

The artifact assemblage from SLO-214 is typical of the Late Period dating after ca. A.D. 1000. The more time-distinctive artifacts found include small projectile points (arrow points), a circular shell fishhook, and certain olivella shell bead types, including thin- and full-lipped wall beads and callus and cylinder beads. As the authors point out, the thin-lipped beads are distinctive of a period between A.D. 1500 and 1650 (Gibson 1975:117, King 1978:59), or what both King and Gibson, following Bennyhoff, have termed Phase 2a of the Late Period. The absence of glass beads in the assemblage supports this chronological interpretation. Nonetheless, three full-lipped beads, popular during Phase 2b of the Late Period (1650-1770), were found in the uppermost stratum of the site. While this quantity seems too insignificant to be confident of occupation during this phase, the quantity of the thin-lipped type is also rather small, there being only seven in the collection.

Hoover and Sawyer make much of the considerable variety of both shell and stone bead types in the collection, arguing that with a collection of this size the variety may indicate the existence of "a trade fair" or the importance of the site as a node for coast-to-interior trade. This interpretation is premature, however, since the unusually great variety may only be the result of eighth-inch mesh screening and an up-to-date bead analysis that makes much finer distinctions than are found in most earlier reports.

The authors also report the presence in one locality of the excavation of "beads . . . in various stages of completeness." Along with the presence of small drills, the beads are said to reflect bead-making at the site. Unfortunately, the evidence is not clearly enough presented to give the reader much confidence in this interpretation, especially since the roughly shaped beads of Phase 3 of the Late Period, dating after 1790 (King 1974:79, Gibson 1975), look very much like unfinished beads. It would be very significant if beads were indeed made at the site, since the bulk of the evidence of bead-making in Chumash territory comes from the Santa Barbara Channel, especially from the Channel Islands (Glassow 1980).

A rather distinctive aspect of the artifact collection from SLO-214—one the authors appear not to have recognized—is the group of side-notched arrow points closely resembling those typical of the California desert and Sierra regions of California (Baumhoff and Byrne 1959, Hudson 1974:9). They are very rare, however, in sites of the Chumash area.

Although the authors believe that these points were used for small game, the association between points of this size and faunal remains of deer and other similarly-sized animals in sites throughout western North America argues for their use for large game.

Following Baumhoff and Byrne, Hudson believes these points may postdate A.D. 1650. Even if this were so, they do not appear to be typical of protohistoric or historic Chumash sites on the Santa Barbara Channel—for example, none was found at *Shisholop* (Greenwood and Browne 1969:12-13) or at *Mikiw* (Harrison 1965). Since what little is known of their distribution in Chumash territory points to their use in inland or interior regions (Hudson 1974:9), the SLO-214 finds may reflect relatively closer interaction of some sort with Chumash of these regions than with Santa Barbara Channel Chumash (if indeed it can be assumed that the side-notched points are functionally equivalent to the concave-based points typical of Late Period sites on the Channel coast).

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In conclusion, some prescriptive statements by Lathrap and Hoover regarding the nature of site reports deserve comment. According to them, a site report should include (1) consideration of the full range of artifact remains, (2) artifact descriptions adequate for comparison with other assemblages, (3) analysis of stratification in enough detail to determine relative ages of occupations, (4) records of provenience so that associations with stratification and features can be discerned, and (5) a full presentation of all the above rather than just inferences from the data. Lathrap and Hoover lament the paucity of site reports for the Chumash area that meet these criteria, and, with regard to the development of cultural chronologies, they conclude that "it will be necessary to concentrate on comprehensive basic studies which shun the limited 'problem-oriented' approach fashionable in the 1960's and build a sequence that can encompass those of Rogers, Olson, and later researchers."

Hoover and Lathrap draw a false contrast here, since the development of a descriptive outline of regional prehistory certainly entails a great deal of problem orientation. In the first place, there are always a number of regional chronological problems that must be solved, especially in an area such as that occupied aboriginally by the Chumash, as many of my comments above indicate. Secondly, there are a number of problems relating to the process of "translating" archaeological data into behavioral terms. The SLO-214 report focuses on several such problems—in particular, the interpretations of stratigraphic changes. Finally, regional problems may focus on explanations of cultural change. As an example, Hoover and Sawyer account for the shift from mussel to oyster exploitation by the occupants of SLO-214 by reference to silting in of the adjacent rocky coast. The point is that problem orientation is inevitable if a conscientious effort is made to give meaning to archaeological data. To argue that problem orientation should be shunned at the site-report level is simply a poor excuse for avoiding one's responsibilities to the profession. In light of this, I would add a sixth requirement to good site reporting: Address all the regional research problems to which the data are relevant.

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