Although the drawings are unsigned, their attribution by Dr. Nunis to Father Ignacio Tirsch seems certain. In contrast to Nunis’ belief that the drawings were made in Baja California, enough altered detail, such as the reversal of the orientation of Cabo San Lucas (Plate 10), exists to convince me that they were made from memory after Tirsch’s retirement to Bohemia. The accuracy of the depiction of plants and animals as well as the detailed view of San José del Cabo with its adjacent huerta make it equally clear that he was reproducing what he had actually seen. Tirsch was neither a great artist nor draftsman, though his use of color is bold and striking. Natural history attracted his attention and recognizable drawings of plants and animals, especially birds but including mammals and shellfish, show a sharply observant eye. Though he was in the peninsula less than six years and stationed in the far south at Santiago where the native culture had been most completely destroyed, his drawing of a ckio (Idria columnaris) which only occurs north of Latitude 28° N., indicates that he had visited the central part of the peninsula and encountered Indians, unfortunately Cochimis rather than the Pericú or Cora of his own mission, living in a near aboriginal condition.

It would be foolish to claim that these drawings make a major contribution to our ethnographic knowledge of the Indians of the peninsula. They do offer confirmation on some details reported in the literature. Females in aboriginal settings are shown with the split skirt with deer hide behind and strings of carrizo joints in front. Males tend to have loin cloths, which may well result from the artist’s prudery. When depicting Indians around his own mission the dress and activities make it clear that by the time of Jesuit expulsion, fifty years after the first mission contact in the cape region, acculturation had been overwhelming. Without captions, the individuals shown could not be recognized as Indians.


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In addition to the report of the activities of the Archaeological Survey in 1971, this volume contains five interrelated papers originating in a symposium on “Man and Environment in the Late Prehistory of Southeast California” and six other contributions of disparate nature. In discussing these papers I will depart from their original sequence, following instead an order that proceeds roughly from the more theoretical to the more substantive.

In “World Views and Archaeological Investigation in Interior Southern California” Robert L. Bettinger describes the nature and implications of the current transition from the view of archaeology emphasizing chronological sequences of discrete cultural units based on “type fossils” to a newer view which stresses the concept of culture as “a complex network of human and natural systems” and which seeks to explain culture change in terms of recurrent systemic processes. Within the present systemic framework, Bettinger also points out, subsistence and environment play especially important roles. Although originally prepared as an introduction to the southeastern California symposium papers, his comments apply as well to most of the other contributions, which to some degree reflect a concern with cultures in environmental contexts.
"A Methodological Outline for Operationalization and Measurement in Archaeology" by Dean A. Decker is a commendable though sketchy attempt to make explicit the procedures used by archaeologists in relating theory to empirical data, and thereby to expose possible weaknesses in existing practices so that appropriate corrective measures may be taken. Periodic stock-taking of this sort is a useful exercise. In this particular instance, what is revealed is a need for more explicit consideration of the linkages between "general theory," "model," and "behavioral dimensions" in the initial portions of this outline. As it is, we are given few clues as to how these linkages are in fact made beyond the statement that the dimensions to be utilized emerge from the interaction between general theory and the nature of the phenomenon to be explained. Amplification of the outline, especially in this area, would have increased the value of this contribution.

John Beaton's "Exploring Hunter-Gatherer Strategies in Differing Habitat Associations" is an exercise in the construction of theoretical models. It seeks first to establish a typology of habitats on the basis of three criteria: amount of species diversity, nature of resource distribution, and degree of seasonal variation. It then seeks to determine what differences among hunting and gathering adaptive strategies may be accounted for by differences in habitat type. The discussion presented is suggestive rather than thorough, directed more to the presentation of the idea that "models that explore the basic realities of physical environments will expose systemic connections that might not otherwise be apparent" than to a convincing substantive demonstration of their utility.

Whereas Beaton deals with hunters and gatherers in an essentially static framework, Robert L. Bettinger and Thomas F. King concern themselves with a problem of dynamic nature, i.e., the localized emergence of social ranking in the Great Basin. In "Interaction and Political Organization: A Theoretical Framework for Archaeology in Owens Valley, California" they focus on the adaptive advantages of a trade and redistributive network involving the movement of bankable exchange currency (shell and obsidian) and edible food resources across and along the Sierra Nevada as a possible device for the development of permanent settlements and inherited leadership roles in Owens Valley. Finding in existing ethnographic data hints of the exchange system they hypothesize, they propose to use the construct to orient archaeological field work in the valley.

"The Chevelon Archaeological Research Project" by Fred Plog presents the methodological strategy and background data for proposed research in the vicinity of Winslow, Arizona. The central concern of this project is said to be the explanation of the differential adoption of cultural traits, with particular emphasis to be given to their adaptive advantage in activity systems subjected to selective pressures. The explanation for the differential adoption of traits is seen to reside in the interaction of five variables: population, differentiation, organization, innovation, and energy. Unfortunately, the potential value of this paper is diminished by the fact that the explication and justification for the postulated linkages between these five variables are presented elsewhere.

In "Natural and Social Environments of the Santa Monica Mountains (6000 B.C. to 1800 A.D.)," N. Nelson Leonard, III, offers an extensive synthesis centering on the changing patterns of land use in the coastal and inland portions of the Santa Monica Mountains. Trends observable in this prehistory include: (1) progressive expansion of areas utilized, (2) intensification of resource use, (3) outward expansion of exchange systems, and (4) specialization of primary processing activities by localities.
In offering this synthesis, Leonard expresses a desire to present a regional prehistory in sufficient detail so that meaningful comparisons may be made with other such syntheses. That this approach promises to be fruitful is suggested by the circumstance that various of the trends noted here are also manifest, or thought to be manifest, in other areas dealt with in this volume—in, for example, the differentiation and organization variables of the Chevelon Project, the rise of the inter-regional trade system in the trans-Sierra, and the late prehistoric intensification of seasonal land use in Perris Valley. These examples are already suggestive of systemic processes that operate cross-culturally in hunting and gathering traditions.

Four papers and Claude N. Warren’s commentary comprise the contributions of the symposium on southeastern California prehistory as viewed from research conducted in the Perris Reservoir area of Riverside County in 1970 and 1971. Bettinger’s paper on archaeological world views, previously mentioned, begins the series (although inadvertently misplaced toward the end of the symposium papers in this volume). Philip J. Wilke describes the research itself, summarizes the findings with regard to settlement pattern and subsistence activities, and briefly notes the existence of comparable material from elsewhere in interior southern California. George T. Jefferson then argues that the prehistoric record at the Perris locality (almost exclusively confined to late horizon material) reflects an attempt to maintain a population-to-resource equilibrium in the face of either a change in population size or density or a change in the availability of food resources in the immediate or adjacent areas. This is followed by James F. O’Connell’s evaluation of Jefferson’s thesis in the light of existing data. His conclusions are that while the data necessary to test for possible population pressures are unavailable and while there is no clear evidence of climate induced environmental change, the creation and later desiccation of Lake LeConte would have led to local population stresses that may have been transmitted to neighboring areas, bringing about adaptive adjustments of the kind observed at the Perris Reservoir.

To this reviewer, the most laudable aspect of this series of papers is its consideration of inter-areal relationships in the attempted explanation of change. If a criticism is to be made, it would be that it does not go far enough along this line. In the absence of a more convincing validation of the Lake LeConte hypothesis, it might be argued that the possibilities of population pressures emanating from the coastal areas should have been given more weight in the discussion. Leonard has described the trends in the Santa Monica Mountains; a similar though perhaps less intense series of changes probably took place southward to the Mexican border. Warren, in expressing his belief that more emphasis should be given to cultural processes in systemic analyses, mentions the innovation of acorn grinding and the use of the one-piece shell fishhook. If not critical in themselves, these developments may well represent adaptive changes in the coastal area that were sufficient in magnitude to affect the hinterland.

Of a somewhat different nature, although directly relevant and certainly useful to archaeologists concerned with demographic and sociological inferences, is Judy Myers Suchey’s “Techniques for Analysis of Human Skeletal Materials from Archaeological Sites.” For those who may recall a similar contribution in the 1965 Annual Report, it may be noted that the current offering incorporates much new information, including additional criteria for determining the sex of innominate bones, notice of Gilbert’s modification of the McKern-Stewart system for determining the age of female specimens, and Genove’s New
World data on stature reconstruction.

One final comment. It is ironic that at a time when archaeological writing has become increasingly specialized and technical, the need for widespread popular support for archaeology has become acute. With this in mind, and without intent to detract from the essential value of this volume, it may be suggested that future issues strive for greater consistency in the observance of typographic and stylistic niceties.

Altogether, its somewhat uneven quality notwithstanding, this volume may be read with profit by those who desire insights into the nature of archaeology as it is currently pursued in California.

In summary, these contributions taken together clearly manifest the impact of the "New Archaeology," now a decade old. There are represented here fresh, stimulating ideas and approaches to prehistory in an overall orientation that includes an explicit awareness of the theoretical bases of archaeological research, a systemic concept of culture, concern with the construction and testing of models, involvement with sociological and ecological processes, and consideration of inter-areal and even inter-regional cultural dynamics. At the same time, we also find what is perhaps another manifestation of a transitional period, when the generation of new ideas outruns our ability to apply and test them thoroughly—a paucity of detailed empirical data. Some of the contributions in this volume are of a strictly conceptual nature, others are programmatic statements of research to be conducted, and those that are more firmly grounded in substantive data are presented in summary form. Decker reminds us of the critical articulation between theory and empirical data, and we may expect that with the maturation of current views, this articulation will be reflected in greater depth.