FOR TWENTY-FIVE YEARS, James Bennyhoff and David Fredrickson have been at the forefront of cooperative attempts to forge a new taxonomy for California archaeology that would be more sensitive than previous classification systems to local prehistoric cultural continuity and change. Despite this, the formal documentation of their efforts has, until now, existed largely in their class lecture notes and unpublished papers. As a consequence, a generation of archaeologists exists today who know about Bennyhoff and Fredrickson's work only from secondary sources. Never having read the original papers, students and many professionals are uninformed about the historical developments that shape contemporary archaeological thought in California—particularly views on archaeological taxonomy. Why was a new taxonomy needed? What was wrong with the existing one? The essays in this volume address these questions in detail, but to fully appreciate the answers and proposed solutions it is appropriate to provide a background context for the developments of the taxonomic system which Bennyhoff and Fredrickson refined and revised.

Background on the Central California Taxonomic System

Bennyhoff and Fredrickson's collaborative work was precipitated by the widespread dissatisfaction in California archaeology which attended the acknowledged shortcomings of the tripartite Bulletin 2 sequence of Early, Transitional (later Middle), and Late horizons (Lillard, Heizer and Fenenga 1939; Heizer and Fenenga 1939; Beardsley 1948, 1954).

Until the early 1930s California archaeology was noteworthy primarily as an example of what Kroeber (1936:115) described as "conservative stability" and at that time there seemed no reason to dispute the appraisal that: "... the upshot of the correlation of the findings of archaeology and ethnology is that not only the general Californian culture area, but even its subdivisions or provinces, were determined a long time ago and have ever since maintained themselves with relatively little change" (Kroeber 1925:926).

Although archaeologists routinely attribute formal naming of the Central California Taxonomic System (CCTS) to Lillard, Heizer, and Fenenga (1939), Heizer and Fenenga (1939), and/or Beardsley (1948, 1954), I can find no evidence that any of these archaeologists ever used this term (CCTS)—they employed the modifiers culture, period, culture sequence, or culture horizon. Gerow appears to have been the first to refer explicitly to the threefold culture/period/horizon scheme as the CCTS (Gerow with Force 1968:5).
Based on excavations conducted between 1933-1935 at sites near Deer Creek and on the Cosumnes River about 20 miles southeast of Sacramento, J. B. Lillard and William Purves (1936) of the Sacramento Junior College announced that they had recognized three successive cultural levels—Early, Transitional, and Recent—distinguished from one another primarily on the basis of burial mode and typological contrasts among associated grave goods. Although Kroeber (1936:115) at first gave this report a lukewarm reception because Lillard “appears to have derived them [conclusions about significant culture change] from valid evidence but has not yet set this forth so that it can be controlled” he subsequently appraised the work more positively, stating that Lillard and Purves’s “differentiation between the two older levels is, as always in California, not particularly striking, but seems definite” and that “the Sacramento College findings are important. The work on which they rest appears competent and sound” (Kroeber 1937:144).

Just three years later two separate publications appeared which elaborated, in much greater detail than Lillard and Purves (1936), the three-part sequence of Early, Transitional, and Late “culture horizons.” Although brief by contemporary standards, Lillard, Heizer and Fenenga’s (1939) monograph presented a relative wealth of detailed information on changes in burial mode and in shell, stone, and bone artifact types from a number of physically and culturally stratified sites to buttress the changes in “culture type” recognized only in dim outline by Lillard and Purves (1936). From a taxonomic standpoint their monograph (Lillard, Heizer and Fenenga 1939:79-81) was considerably more sophisticated and self-conscious than the 1936 work, and introduced a newly defined Late period with three sequential phases. (Phases 1 and 2 were purely prehistoric, while Phase 3 represented the post-contact period.) Perhaps equally important, they specified which artifact types and burial complex were characteristic of each period (i.e., “culture type”), which meant that when such configurations of artifacts and burials were encountered at sites elsewhere in California, they could be placed in time by appeal to the stratigraphic and cultural successions documented in the Sacramento-San Joaquin Delta. Richard Beardsley (1948, 1954) added further refinements to the three-horizon sequence, formally substituting Middle Horizon for Transitional “to avoid unwarranted implications” (Beardsley 1948:3).

However, as sites outside the Sacramento-San Joaquin Delta were found that contained either non-cemetery assemblages (lacking diagnostic Horizon-specific artifacts) or burial complexes different from those considered typical of the Early, Middle, and Late horizons in the Lower Sacramento Valley, interpretive and taxonomic problems quickly arose (see chapters 2, 3, 8, and 9 herein for discussion; also Bennyhoff [1986:67]; Bickel [1981:8-11]; Gerow with Bulletin 2. Nonetheless, Heizer and Fenenga (1939) freely alternated between the use of period and horizon when describing the threefold culture sequence.

2 The first announcement of the Early-Transitional-Late cultural horizon sequence appears to have been made by Heizer (1939a), who sketched the contrasts presented in greater detail later that year by Lillard, Heizer and Fenenga (1939) and Heizer and Fenenga (1939).

3 Although published in the same calendar year, in-text citations (Lillard, Heizer, and Fenenga 1939:74, 85) indicate that Bulletin 2 appeared before Heizer and Fenenga (1939). This is of interest because, although the term horizon appears occasionally in their monograph, the final, summary section (“Analysis of Cultures”) of their work (Lillard, Heizer and Fenenga 1939:74-82) is organized by period, not horizon. The transposition of the three-part (Early, Transitional, Late) sequence from period to horizon thus appears largely to have been the work of Heizer and Fenenga, not Lillard, since Heizer (1937:39) remarked on “the existence of two mutually distinctive cultural horizons, the so-called Early and Late” two years before the publication of Heizer and Fenenga (1939:379-80), referring to Lillard and Purves’s (1936) monograph, wrote that: “Their [Lillard and Purves] conclusion was that an Early and Late culture period were distinguishable, the Post-contact or historic period forming the final phase of the Late.” There is no reference anywhere in Lillard and Purves to a Late period, only to Early, Intermediate, and Recent culture levels (Lillard and Purves 1936:9, 19-20). The confusion is unfortunate, though largely terminological; on the basis of similarities in assemblage composition, Heizer and Fenenga (1939:23) equated Lillard and Purves’s Intermediate level with their newly defined Late culture, which would later come to be known formally as the Late Horizon (Heizer and Fenenga 1939; Beardsley 1948).
Because the original threefold Bulletin 2 sequence was derived largely from Lower Sacramento Valley grave lot assemblages it was perhaps inevitable that difficulties would arise when it was projected into areas where some of the same artifact types were shared (either manufactured or obtained through exchange), but burial practices varied. For example, by extrapolation of the Bulletin 2 sequence it was believed that sites along San Francisco Bay were occupied later in time than Early Horizon sites of the Lower Sacramento Valley (Heizer 1949:39) because, despite acknowledged similarities in certain artifact types, the Bay sites contained flexed burials, a hallmark of the Middle Horizon in the Valley. As Heizer (1949:39, footnote 126) observed: "no Bay site has produced evidence of occupation by the distinctive Early culture horizon group. A few of the specific Early culture elements occur, but not as a well-knit complex." Since the Bulletin 2 system combined burial mode and artifact types in a single "package" any variability observed, for example, in burial mode, could not be easily reconciled with the Lower Sacramento Valley sequence (e.g. Heizer 1939b: 55).

To a certain extent, problems of this sort were anticipated by Beardsley (1954:6); in evaluating the culture classification scheme he helped to create he wrote that:

We [Beardsley, Heizer and Fenenga] are agreed that this is neither the final classification nor the only one possible even now. It should be profitable to devise classifications of several sorts, each stressing one or another of the three significant factors, time, space, and culture content. We have not yet been able to be equally solicitous of all three factors in a single scheme.

It was recognition of the importance of keeping separate the dimensions of time, space and culture that inspired Bennyhoff and Fredrickson to propose the taxonomic refinements and modifications detailed in the essays in this volume.

The Intervening Years

Despite a shared dissatisfaction with the Bulletin 2 taxonomic system, which can be traced back to their student days at the University of California, Berkeley, in the years following World War II, events transpired which made it difficult for them to collaborate immediately to propose a solution. After completing graduate course work, Bennyhoff joined the anthropology faculty at Yale University for two years (1958-1960), then spent most of the next six (from 1960-66) in Mesoamerica working with René Millon on the Teotihuacan Mapping Project. He returned to California in 1967 to accept a post at the Department of Anthropology, University of California, Berkeley, during which time (1967-1970) he and Fredrickson were able to return to joint discussion of taxonomic issues. These discussion continued during the years (1973-1986) Bennyhoff held faculty appointments at Sonoma State University (see Hughes [nd] for more detail on Bennyhoff's career).

After leaving graduate school in 1952, Fredrickson spent the next ten years outside academia and archaeology, but was enticed back to archaeology in 1959 when his wife, Vera-Mae, went back to school at U.C. Berkeley. From 1961-1965, Dave completed and wrote up the results of major excavation projects he had undertaken in Lake, Napa, Kern, and interior Contra Costa counties. Then, in 1967 he accepted a position on the anthropology faculty at Sonoma State College (later, Sonoma State University) where he remained until his retirement from teaching in 1992 (see White [1993] for more detail on Fredrickson's career).

The Structure of this Volume

To capture as faithfully as possible the unfolding and development of the ideas and taxonomic refinements proposed by Bennyhoff and Fredrickson, the essays have been arranged chronologically, proceeding from the early trial formulations and applications of the late 1960s through the more recent re-thinking and modifications proposed at the end of the 1970s - early 1980s up to the present. The date each essay was originally drafted and, if applicable, revised appears in parentheses below the authors name at the beginning of each chapter. The authors were asked specifically not to rewrite or extensively revise any sections of their papers in the belief that the reader will gain a clearer appreciation and understanding of developments by reading the essays largely as they were.
originally written. In this spirit, I have kept my own editorial intrusion to a bare minimum and have attempted to increase clarity— not to effect content.

Several of these essays have achieved almost mythical status in California archaeology, and information from them is featured prominently in several sections (especially chapters 5, 6, and 10) of Moratto’s (1984) California Archaeology.

Chapter 1, Bennyhoff’s “Delta Intrusion to the Bay . . .” was first delivered in April 1968 at the joint annual meetings of the Southwestern Anthropological Association and the Society for California Archaeology. During this time he and Fredrickson were meeting on taxonomic issues. Fredrickson’s notes document that he and Bennyhoff met at least six times between August 19 and November 1, 1968 in intensive discussions which laid the groundwork for the paper that follows— chapter 2, “A Proposed Integrative Taxonomy for Central California Archaeology.” This paper was begun by Bennyhoff and Fredrickson at the very end of 1968 and completed in 1969. The reader will notice that Bennyhoff’s “Delta Intrusion . . .” paper was written slightly earlier during this same period, and that it introduces taxonomic issues elaborated more fully in Bennyhoff and Fredrickson’s “Proposed Integrative Taxonomy . . .” essay.

Just after Bennyhoff delivered his “Delta Intrusion . . .” paper in early 1969, he drafted a paper entitled “The Need for a New Taxonomic System in Central California Archaeology.” This paper was, in effect, the position paper from which Bennyhoff and Fredrickson’s “A Proposed Integrative Taxonomy . . .” essay was elaborated. Bennyhoff’s “The Need for . . .” manuscript is not reproduced here because the major points and definitions, with one exception (see chapter 2, p. 23, note 1. Ed.), were discussed at greater length jointly with Fredrickson in “A Proposed Integrative Taxonomy . . .”

Chapter 3, Fredrickson’s “Cultural and Spatial . . .” paper, is excerpted, with revision, from chapters five and six of his 1973 doctoral dissertation “Early Cultures of the North Coast Ranges, California.” The taxonomic scheme advanced in this paper is clearly elaborated from the groundwork laid by his collaboration with Bennyhoff, and it has had—and continues to have—a profound influence in Northern and Central California archaeology.

Chapter 4, Bennyhoff’s “Napa District . . .” paper was first presented in 1977 at a symposium on the archaeology of the North Coast Ranges, California, sponsored by the Center for Archaeological Research at Davis. This paper continues to be influential in North Coast Ranges archaeology but carries particular significance here because it provides an empirical example of how archaeological districts are actually identified and defined employing the taxonomic framework advocated by Bennyhoff and Fredrickson.

Fredrickson’s “Changes in Prehistoric Exchange Systems in the Alamo Locality . . .” appears as chapter 5 and was first presented in outline form at a symposium on the archaeology of the Central Valley, held at Cosumnes River College in 1977; the version that appears here was revised and expanded in late 1980. Chapter 6, Bennyhoff’s “Central California Augustine . . .,” was first delivered in December 1982, at a symposium on current research in northern California archaeology held at California State University, Chico. The slightly revised and expanded version of this paper includes a previously uncirculated codification (figure 6.4 herein) of Bennyhoff’s revision of the CCTS.

Chapter 7, Fredrickson’s “Central California Archaeology . . .” was first presented in 1982 (with slight revision in 1984) at the same symposium as Bennyhoff’s in the preceding chapter. Chapter 8, Bennyhoff’s “Variation within the Meganos Culture,” was delivered in 1987 at the annual meeting of the Society for California Archaeology in Fresno.

Finally, Bennyhoff and Fredrickson were asked to write a closing retrospective essay on their earlier papers which would provide a forum for them to correct the errors and/or shortcomings they might perceive today in their original work, and to comment on recent abuses (or misunderstandings) of their taxonomic scheme. Chapter 9, “Archaeological Taxonomy in Central California Reconsidered,” written by Fredrickson in 1992, and chapter 10 “Recent Thoughts on Archaeological Taxonomy,” written by Bennyhoff in 1993, resulted from that request.

The taxonomic modifications proposed formally by Bennyhoff and Fredrickson were important be-
cause they allowed researchers to keep separate the
dimensions of time and culture which had been inextricably wed in the Bulletin 2 system. But perhaps of
equal importance, the criticisms they made of the
Bulletin 2 system prompted in their classification an
explicit awareness of why time, adaptive mode, burial
mode, and exchange media must be treated as inde-
pendent variables in any comprehensive taxonomy.
In this respect, the taxonomic system they proposed is
clearly better suited than its predecessors to the aims
of contemporary archaeology.

In my view, the essays in this collection not only exemplify scholarship and careful attention to detail
but, taken as a whole, they aptly illustrate two longstanding concerns in California archaeology—
linking archaeology and ethnography though applica-
tion of the direct historical approach, and devising a
flexible taxonomic framework capable of integrating
the concerns of both culture historical and processual
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