# LINGUISTIC ARCHAEOLOGY AND THE USE OF ETHNOLINGUISTIC BOUNDARIES

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# **ABSTRACT**

Ethnolinguistic boundaries are frequently inferred for California's prehistory based on the presence and distribution of archaeological materials. These reconstructed entities are based on an assumed linguistic and cultural boundedness that derives from early ethnographic research. However, the ethnolinguistic maps do not fully consider issues of native mobility. Given the frequent fluidity of social boundaries with respect to communities, families, and individuals, such well-delineated "map" boundaries may hinder a fuller conception of the prehistory of northern California. The simple notion of language groups migrating across the California landscape may obscure the subtleties of language shift over time. Therefore, the linguistic geography of northern California may suggest two possibilities: (1) a supertribelet level of organization prior to the development of the autonomous tribelet and/or (2) a cognitive level of interaction above tribelet sociopolitics existing among speakers of a particular language.

#### Introduction

Studies on prehistory unquestionably benefit from the convergence of archaeology and historical linguistics. Fortunately the ambiguity and difficulty have not deterred California archaeologists from attempting it, at least as shown by recent attempts in northern and central California to track native languages in archaeologically known past social and environmental situations. These scholars include Mark Basgall (1982). Gary Breschini (1983), Glenn Gmoser (1993), Tom Layton (1990), Helen McCarthy (1985b), Michael Moratto (1984). David Olmstead (1985), and as we could appreciate from the Plenary Session this morning, Kenneth Whistler (1977, 1988) and James Bennyhoff. This intellectual background and the critique provided by Richard Hughes (1992) provide a starting point for this paper. In the hopes of being constructive, I will focus my attention on ways to reconsider the conjunction of the two fields such that appropriate theoretical and analytical frameworks are in place.

Three points on boundaries will be made in this paper. First, we need to rethink what it means for language boundaries to shift across the landscape. That is, what use does the concept of migration have in interpreting California prehistory? Second, we must ascertain whether the ethnolinguistic boundaries commonly cited and used are appropriate. Third and finally, I will nudge the analytical boundary imposed by ethnographic analogy for understanding the past. To critically question this boundary, I will suggest two avenues for future research. For these three points, examples will be drawn from the Pomo area of the North Coast Range due to both the amount of linguistic research on it (Halpern 1964; McLendon 1973; McLendon and Oswalt 1978; Oswalt 1964; Webb 1971; Whistler 1988) and my personal interest in the archaeological area.

Although the California attempts are important and have provided insight into the past, several problems exist. Hughes (1992) has outlined many theoretical and methodological difficulties, especially the tenuous correlation between linguistic families and languages with archaeological patterns and aspects (Hughes 1992:322). In addition, more attention needs to be directed toward understanding how many and what type of informants were used to derive the language record and the languages' spatial boundaries. This effort is essential since people will converse in certain ways and about certain things based on their sociohistorical background and the context of discourse.

# Reorientation in Analytical Framework

In essence, the issue is one of boundaries, both analytical and ethnolinguistic. Analytically, linguistic archaeology has reached a quandary in that large-scale explanations for social phenomena are no longer as sound as once thought unless they can be shown to work through proximate, social mechanisms. This stems primarily from the convergence in archaeology on a methodology of the small-scale and the individual as seen in the arenas of postprocessualism (Brumfiel 1992; Hodder 1991; Shanks and Tilley 1987) and feminism (Gero and Conkey 1991; Tringham 1994).

Therefore, analysis of language change and distribution in the past needs to be reoriented to more social- and individual-specific perspectives and, thus, away from notions of population movements of single linguistic entities. Though migration is important in at least some form (Anthony 1990; Basgall 1982; Bettinger and Baumhoff 1982), it needs to be contextualized (see Rouse 1986 for an attempt). I will note here that the term "migration" in archaeological usage actually refers to "dispersal" for the people are assumed to not return to

their previous location, but I will continue to use the former term. I disagree with Geoff Clark's (1994:305) recent assessment of the archaeological use of migration when he claims that "migration and diffusion are density-dependent phenomena in historic contexts and are, thus, unlikely to have occurred prior to the relatively high population densities associated with the effective implementation of domestication economies." If by migration he means extensive prehistoric movements of people over time, then the linguistic geography in California suggests otherwise by qualitatively and vividly demonstrating a high degree of movement throughout prehistory. This movement can entail either entire populations or segments of them, and such a scale needs to be specified. "Cultures do not migrate. It is often only a narrowly defined, goal-oriented subgroup that migrates" (Anthony 1990:908). Though migration of large segments of people is not a sophisticated enough model for explaining all of the linguistic geography and archaeological record of California, an emphasis on variable and shifting daily, seasonal, and yearly movements across the landscape may be.

Thus, archaeologists can benefit more from working at the local language or family level (e.g., Pomo) rather than at the higher linguistic stocks such as Hokan or Penutian (e.g., Breschini 1983). Not only are the existence and constituent languages still being debated among linguists (e.g., Shipley 1978), but also the notion that archaeological remains are explicable by reference to such high-level categories is weak. In addition, the movement of such large-scale entities is yet to be well demonstrated in many prehistoric contexts, and perhaps here is where Clark's (1994) insight rings true.

At this juncture, it becomes important to consider the ways in which language shift might occur across the landscape from an individual or small-scale perspective. An interesting piece of information can be gleaned from Kroeber's (1909:3-4) statement: "None of the peoples of the state possess any traditions of migration or of foreign origin, and their numerous distinct languages are spoken in such closely adjacent or even compact and continuous areas as to negate any theories as to noteworthy movements of population for a long time in the past." The possibility that no California natives harbor oral histories about migration and massive population movement hints at the subtle ways that people, and by extension language groups, have shifted over the land. It is well known that language can be spread by relatively few speakers (Dyen 1956:613), and such a scenario may be productively considered for northern California. This fact renders unnecessary Hughes' (1992:328) criticism of archaeolinguistic models as not accounting for the expected violence and conflict associated with a population movement. No large-scale "conflict" would have occurred with smaller scale fluctuations in tribelet boundaries (Gmoser 1993:256; see Whistler 1988:85).

Therefore, more attention needs to be directed toward detecting the mobility patterns represented in archaeological contexts (Kelly 1992). Knowing that historical linguistic data indicate a substantial amount of movement, it becomes essential to locate and theorize about social and individual mobility. By considering who may have been the most mobile—for in-

stance, women, men, hunters, shamans—a more complete picture of which social groups might be responsible for the language shifts becomes possible. The ethnographic examples of long distance travels by Pomo speakers in the Hopland and Ukiah areas to Bodega for clamshell or to Point Arena for marine food resources (Stewart 1943:44-46) suggest variable and quite extensive mobility. In addition, based on cognates, Whistler (1988:77) has already suggested that Proto-Pomo mobility is important for determining whether Clear Lake was actually the local area inhabited by a relatively sedentary group or just an important stop in the rounds of mobile hunter-gatherers, but the actual pattern has yet to be elucidated.

# Ethnolinguistic Boundaries and Misperceptions

In considering more individual-based approaches, the ethnolinguistic boundaries for California edified in the literature require questioning. Aside from the difficulty of projecting such distinct ethnolinguistic lines from a small number of informants, the problem lies in how to think about those boundary lines. Too often, the linguistic group boundary is seen as an ethnic boundary, such that we picture one linguistic (read cultural) group moving around on the landscape, contracting and expanding at the expense of other groups. Yet, careful reading of ethnography demonstrates that conflict, territorial shifting, exchange, and trade occurred at the intervillage level, regardless of language affiliation (Barrett 1908:20; Bennyhoff 1977:17; Hughes and Bettinger 1984).

As California archaeologists have heard time and again, the Pomo language group does not indicate a sociopolitical entity (Kroeber 1932:258, 1962:38). Similarly, claims that the X Pomo fought with the Y Pomo mean nothing more than saying that tribelets A and B had conflicts, because language was apparently not an organizing feature for most of late prehistoric and protohistoric Native Californians. Unfortunately, many scholars perpetuated this language group categorization of the Pomo (Loeb 1926; McCarthy 1985b:63; Stewart 1943:55), though they mention that language was only used to group people analytically (McCarthy 1985a:20). In the rest of her work, however, McCarthy does a commendable job of using finer-scale distinctions. Though higher level integration may have existed in some California groups (see Bean 1976:103; Bean and Lawton 1976:46), especially with the Southeastern Pomo ceremonies (Kunkel 1962), the tribelet is the only true sociopolitical unit in Native California (Kroeber 1925, 1932, 1962; see Lightfoot 1994). Admittedly, the concept of tribelet is complicated, but I will not have time for that discussion here. Examples of linguistic group actually corresponding to cultural group, that is, true ethnolinguistic groups, may be the single tribelet speaking Northeastern Pomo (Barrett 1908:239) or the consolidated Southwestern or Kashaya Pomo (Stewart 1943:49-50), but the reports are ambiguous.

Categorizing the Pomo by language only reifies the notion of ethnolinguistic boundaries, which are, in fact, artifacts of a misperception of definite boundaries of single-language speakers. There is substantial evidence for bilingualism in the

southern North Coast Ranges (e.g., Callaghan 1964; Hughes 1992;326), and such a situation is only expected given the enormous amount of mobility and exchange across the area. This multilingualism undoubtedly has profound impacts on language reconstructions (Diebold 1987), especially in attempts to assign an absolute chronology to language divergences through the already questionable glottochronology. Though language may have been an ethnic marker in some situations (see below), those individuals living near speakers of a language other than their own might have strategically placed themselves to have at least a working knowledge of that language. As Ericson and Meighan (1984:145) suggest with their concept of boundary arbitration, "people...indeed are more likely to interact with 'foreigners' who are close by than with their own people who are at a greater distance."

A Pomo example is found in Samuel Barrett (1908:244) in which the Northeastern Pomo groups were allied with the proximate Yuki speakers against the Russian River and Clear Lake area Pomo. In addition, there is also evidence of a tribelet in the Bachelor Valley/Tule Lake area of the southern North Coast Ranges that was an amalgamation of Northern and Eastern Pomo speakers (McCarthy 1985b:66). Thus, the bold lines of language groups presented on the "ethnolinguistic" maps may actually be blurred continuums with little explanatory or social consequence. As such, the ease with which archaeologists use these bounded areas needs reconsideration. With the varying types and quantities of cross-cutting relationships across and within social groups (Lightfoot and Martinez 1995; Sutton 1991:313), to represent the language differences as ultimately socially and culturally significant may be misleading and as of yet empirically undemonstrated.

# Ethnography, Language Geography, and Archaeology

Where does this leave us? Considering the use of ethnography as analogy for interpreting the past, two issues concerning ethnic and linguistic boundaries rise to the forefront. Both issues undoubtedly occur in Californian situations, but their contribution or even presence will vary by historical context. One consideration is the impact that European expansion into North America had on native demography and distribution (Dunnell 1991; cf. Dobyns 1983; Ramenofsky 1987). Note that Tom Jackson (1995) provided an elaboration of this possibility in his symposium paper. In addition, devastating epidemics were known to sweep northern Californian native groups during the Russian occupation of Fort Ross (Gibson 1976:128; Kostromitinov 1974:7). Therefore, the distribution of native speakers may have undergone rapid and substantial fluctuations from the protohistoric through ethnographically recorded times (Basgall and Bouey 1991:205). Though this is disastrous for prehistoric archaeology, the cultural shifts may be discernible in shorter-term studies of cultural contact incorporating archaeology, ethnography, ethnohistory, and oral history (e.g. Lightfoot et al. 1991, 1993).

In addition, the tendency for early California anthropologists to seek, or at least project, "pristine" cultures (Lightfoot 1994) obscures the temporality of the linguistic and cultural

features recorded. For example, Olmsted (1985) has provided a cogent account of why certain fish terms are similar in several Pomo languages due to the convergence of some Pomo groups on Clear Lake in the 1870s rather than due to common historical roots. In terms of the Pomo, the potential rapid reshuffling over 80 to 400 years may be the primary factor responsible for the language distributions recorded by ethnographers and linguists. It is true, too, that as Diebold states (1987:46), "some languages simply will not stay put, and the migratory routes they pursue may be little affected by such principles as 'the shortest distance between two points'." In the California case, the homogeneous language groups often spread out over large areas possessed only dialect chains rather than segmentation into different languages. If the contact situation is as just hypothesized, the time depth may not have been sufficient for the autonomous tribelets to have diverged linguistically. This hypothesis, of course, assumes that the sociopolitical context is the one fostering common language. Therefore, linguistic distribution will not provide a window into prehistory—perhaps only history and protohistory.

On the other hand, if the language boundaries recorded early in this century are approximately realistic and have some temporal depth, then perhaps a challenge to the ethnographic record as analogy for the past is appearing. A critical challenge to the ethnographic record is always a welcome step in rethinking issues in California prehistory (see, e.g., McGuire and Hildebrandt 1994). The question is: Why if California Indian sociopolitical organization revolved around local level autonomous tribelet groups would many more languages not emerge across the landscape? To maintain a language separate from others requires certain types of interaction within the particular languages. Such a situation would not be the case, of course, if the different languages were only recently in contact, having had different histories or origins (see above). The ethnographic record does suggest that dialect chains extended across the distinct Pomo languages, but there seems no reason to posit a network-breaking model (after Pawley and Green 1984) in operation. That is, no evidence exists that the dialects were differentiating into distinct languages due to diminishing interaction between the speakers as a result of geographic or social separation. The lack of diversification points to some form of interaction that the speakers maintained within their broad language group (i.e., across the dialect chain) which differed from that held with speakers of separate language groups.

At this recognition, two options are possible. First, the perceived autonomy of the tribelets recorded in ethnography and ethnohistory may have been a recent development. In other words, perhaps a super-tribelet social or political integration had preceded the later autonomy of local groups recorded ethnographically, providing the context for common language. Archaeologically, this shift in the past to autonomy might be recognizable as restricting interaction spheres and exchange, increasing local variation within a region, greater residential sedentism, less social-geographical mobility, or diminishing commonalities in the organization and meaning of space and refuse deposition. Unfortunately, these same lines of evidence

could indicate social or political ties that are not at all related to a common language. In addition, some of these are often given as evidence for social and economic intensification, and these thorny issues would have to be disentangled by context.

Alternatively, the social, economic, and political autonomy may be a longstanding pattern in native northern California, yet integration at a more cognitive or symbolic level may have been the factor underlying language commonality. What this factor might entail is difficult to discern, but it may involve an identity that is ethnic or religious. Perhaps Breck Parkman's (1995) consideration of Pomoan cosmology is a starting point, as those aspects of "Pomo" life are likely to possess internal variation and may cleave along language lines. At the beginning of the century, Barrett (1908:20) called the Pomo language groups a union "of a very indefinite nature" and suggested it might reflect common beliefs, myths, ceremonies, and/or medicinal practices (1908:22). Yet, it is unclear whether this statement is empirical or whether it is wishfully based on a belief that language will unquestionably index a cultural reality. However, such a scenario has also recently been proposed for some northwestern California groups (Golla 1995).

In an archaeological sense, this situation is extremely difficult. It suggests that local fluctuations in group boundaries, material exchanges for economic and social reasons, and common rituals-all of which might be recognizable in the archaeological record—may not at all reflect the linguistic group. If the higher-level integration is a viable hypothesis, the challenge is to locate the material record, whether it be artifactual or spatial, that might reflect the language-as-identity. Possible examples include rock art and other forms of image production, material evidence for world view or symbolism, or perhaps floral remains of medicinal or ceremonial plants. Additional evidence might be garnered on the linguistic side from reconstructions of words for conceptual categories that differ from those concepts in adjacent languages. Nonetheless, this may highlight the type of integration that occurred either together with the non-integration of sociopolitics and exchange or prior to it.

# Some Conclusions

In the end, several suggestions have been made as a way of rethinking the way archaeology and historical linguistics are interconnected. On the one hand, the current specificity with which archaeology and linguistics are correlated has been shown to be too simplistic. In many ways, the linguistic constructs have no readily apparent social or political reality, at least as would be reflected in the material record. As such, the contribution of historical linguistics to archaeology may be more a way of visualizing the ways prehistoric people moved across the landscape. That is, the mobility of individuals, social groups, and entire political entities becomes the center of analysis in archaeological research.

Though still unresolved, the impact of European contact may have instigated a reshuffling of linguistic, political, social, and local groups that we have not yet begun to appreciate. Therefore, the linguistic geography may not be useful in interpreting prehistoric movements at all. On the other hand, historical linguistics tentatively suggests that the ethnographic portrayal of California native groups as entirely local in terms of social and political concerns may be incorrect. To have distinct language groups in this area may suggest either 1) that the tribelet autonomy was a new development brought about either just before or at European contact or 2) that a form of integration, perhaps at a social identity level, existed throughout the language group as the mechanism maintaining the language as a distinct group.

In conclusion, the situation seems conflicting and unresolved for there are no satisfactory answers to the issues raised here. Thus, more emphasis is needed on mobility, both individually and socially, and new attention is required to how, when, and by whom the ethnographically-recorded language distributions were manifested. To do this, more archaeological, ethnohistorical, and ethnographic research is required on the prehistoric-historic interface. My suggestions which serve as a potential challenge to the ethnographic record are just that—potentials. It may be that the recorded linguistic geography reflects a combination of reshuffling, increasing local group autonomy, and social identity. In essence, the ambiguity cannot be ignored nor should it be celebrated, but it must be respected.

# **Notes**

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# REFERENCES CITED

Anthony, David W.

1990 Migration in Archaeology: The Baby and the Bathwater. American Anthropologist 92:895-914.

Barrett, Samuel A.

1908 The Ethno-geography of the Pomo and Neighboring Indians. University of California Publications in American Archaeology and Ethnology 6:1-332. University of California Press, Berkeley.

Basgall, Mark E.

Archaeology and Linguistics: Pomoan Prehistory as Viewed from Northern Sonoma County, California. Journal of California and Great Basin Anthropology 4:3-22.

Basgall, Mark E. and Paul D. Bouey

1991 The Prehistory of North-Central Sonoma County: Archaeology of the Warm Springs Dam-Lake Sonoma Locality, 2 vols. U.S. Army Corps of Engineers, Sacramento, California.

Bean, Lowell J.

1976 Social Organization in Native California. In Native Californians: A Theoretical Retrospective, edited by Lowell J. Bean and Thomas Blackburn, pp. 99-124. Ballena Press, Ramona, California.

Bean, Lowell J. and Harry Lawton

1976 Some Explanations for the Rise of Cultural Complexity in Native California with Comments on Proto-Agriculture and Agriculture. In Native Californians: A Theoretical Retrospective, edited by Lowell J. Bean and Thomas Blackburn, pp. 19-48. Ballena Press, Ramona, California.

Bennyhoff, James A.

1977 Ethnogeography of the Plains Miwok. Center for Archaeological Research at Davis, Publication No. 5. University of California, Davis.

Bettinger, Robert L. and Martin A. Baumhoff

1982 The Numic Spread: Great Basin Cultures in Competition. American Antiquity 47:485-503.

Breschini, Gary S.

1983 Models of Population Movements in Central California Prehistory. Coyote Press, Salinas, California.

Brumfiel, Elizabeth

1992 Breaking and Entering the Ecosystem: Gender, Class, and Faction Steal the Show. American Anthropologist 94:551-567.

Callaghan, Catherine A.

1964 Phonemic Borrowing in Lake Miwok. University of California Publications in Linguistics 34:46-53. Berkeley, California.

Clark, Geoffrey A.

1994 Migration as an Explanatory Concept in Paleolithic Archaeology. Journal of Archaeological Method and Theory 1:305-344.

Diebold, Arthur R., Jr.

1987 Linguistic Ways to Prehistory. In Proto-Indo-European: The Archaeology of a Linguistic Problem, edited by S. N. Skomal and E. C. Polomé, pp. 19-71. Institute for the Study of Man, Washington, D.C. Dobyns, Henry F.

1983 Their Number Became Thinned: Native American Population Dynamics in Eastern North America. University of Tennessee Press, Knoxville.

Dunnell, Robert C.

1991 Methodological Impacts of Catastrophic Depopulation on American Archaeology and Ethnology. In Columbian Consequences, Volume 2, edited by David H. Thomas, pp. 561-580. Smithsonian Institution Press, Washington, D.C.

Dyen, Isidore

1956 Language Distributions and Migration Theory. Language 32:611-626.

Ericson, Jonathon E. and Clement W. Meighan

1984 Boundaries, Alliance, and Exchange in California. In Exploring the Limits: Frontiers and Boundaries in Prehistory, edited by Suzanne P. de Atley and Frank Findlow, pp. 143-152. British Archaeological Reports International Series 223. Oxford University Press, Oxford.

Gero, Joan M. and Margaret W. Conkey (eds.)

1991 Engendering Archaeology. Berg Publishers, Oxford.

Gibson, James R.

1976 Imperial Russia in Frontier America: The Changing Geography of Supply of Russian America, 1784-1867. Oxford University Press, New York.

Gmoser, Glenn J.

1993 Co-Evolution of Adaptation and Linguistic Boundaries in Northern California. In There Grows a Green Tree: Papers in Honor of David A. Fredrickson, edited by Greg White, Pat Mikkelsen, William R. Hildebrandt, and Mark E. Basgall, pp. 243-261. Center for Archaeological Research at Davis, Publication No. 11, Davis, California.

Golla, Victor

1995 Personal communication.

Halpern, Andrew M.

1964 A Report on a Survey of Pomo Languages, edited by W. Bright. *University of California Publica*tions in Linguistics 34. University of California Press, Berkeley.

Hodder, Ian

1991 Reading the Past. 2nd edition. Cambridge University Press, Cambridge.

Hughes, Richard A.

1992 California Archaeology and Linguistic Prehistory. Journal of Anthropological Research 48:317-338. Hughes, Richard A. and Robert L. Bettinger

Obsidian and Prehistoric Sociocultural Systems in California. In Exploring the Limits: Frontiers and Boundaries in Prehistory, edited by Suzanne P. de Atley and Frank Findlow, pp. 153-172. British Archaeological Reports International Series 223. Oxford University Press, Oxford.

Jackson, Thomas L.

1995 Drawing the Line: Archaeological Definitions of Cultural Boundaries. Paper presented at the 29th Annual Meeting of the Society for California Archaeology, April 6-9, Eureka, California.

Kelly, Robert L.

1992 Mobility/Sedentism: Concepts, Archaeological Measures, and Effects. Annual Review of Anthropology 21:43-66.

# Kostromitinov, Peter

1974 Notes on the Indians in Upper California. In Ethnographic Observations on the Coast Miwok and Pomo by Contre-Admiral F. P. Von Wrangell and P. Kostromitinov of the Russian Colony Ross, 1839, pp. 7-18. Translation of 1839 publication by Fred Stross and Robert Heizer. Archaeological Research Facility, University of California, Berkeley.

# Kroeber, Alfred L.

1909 The Archaeology of California. In Putnam Anniversary Volume: Anthropological Essays Presented to Fredrick Ward Putnam in Honor of His Seventieth Birthday, April 16, 1909, by his Friends and Associates, pp. 1-42. G. E. Stechert, New York

1925 Handbook of the Indians of California. Bureau of American Ethnology Bulletin No. 78, Washington, D.C.

1932 The Patwin and Their Neighbors. University of California Publications in American Archaeology and Ethnology 29(4):253-423.

1962 The Nature of Land-Holding Groups in Aboriginal California. *University of California Archaeological Survey Report* 56:19-58. University of California, Berkeley.

Kunkel. Peter

1962 Yokuts and Pomo Political Institutions: A Comparative Study. Unpublished PhD dissertation, Department of Anthropology, University of California, Los Angeles.

Layton, Thomas N.

1990 Western Pomo Prehistory. Institute of Archaeology, Monograph 32. University of California, Los Angeles.

Lightfoot, Kent G.

1994 The Sociopolitical Organization of Hunter-Gatherers in California: Issues of Concern. Paper presented at the 59th Annual Meeting of the Society for American Archaeology, Anaheim, California.

Lightfoot, Kent G. and Antoinette Martinez

1995 Frontiers and Boundaries in Archaeological Perspective. Annual Review of Anthropology 24.

Lightfoot, Kent G., Thomas A. Wake, and Ann M. Schiff

1991 The Archaeology and Ethnohistory of Fort Ross, California, Volume 1: Introduction. Contributions of the Archaeological Research Facility No. 49. University of California, Berkeley.

1993 Native Responses to the Russian Mercantile Colony of Fort Ross, Northern California. *Journal of Field Archaeology* 20:159-175.

Loeb, Edwin

1926 Pomo Folkways. University of California Publications in American Archaeology and Ethnography 19:149-405. University of California Press, Berkeley.

McCarthy, Helen

1985a Ethnography. In Ethnography and Archaeology of the North Coast Range, edited by Helen McCarthy, William Hildebrandt, and Laureen K. Swenson, pp. 36-86. Center for Archaeological Research at Davis, Publication No. 8. University of California, Davis.

1985b Linguistics and Its Implications for California Ethnography and Culture History. In Ethnography and Archaeology of the North Coast Range, edited by Helen McCarthy, William Hildebrandt, and Laureen K. Swenson, pp. 20-34. Center for Archaeological Research at Davis, Publication No. 8. University of California, Davis.

McLendon, Sally

1973 Proto-Pomo. University of California Publications in Linguistics, No. 71. University of California, Berkeley.

McLendon, Sally and Robert L. Oswalt

1978 Pomo: Introduction. In Handbook of North American Indians, Vol. 8, California, edited by Robert Heizer, pp. 274-288. Smithsonian Institution, Washington, D. C.

McQuire, Kelly and William R. Hildebrandt

The Possibilities of Women and Men: Gender and the California Millingstone Horizon. Journal of California and Great Basin Anthropology 16(1):41-59.

Moratto, Michael

1984 California Archaeology. Academic Press, New York. Olmsted, David L.

1985 Appendix B: Linguistic Evidence Concerning Pomo Migrations. In Ethnography and Prehistory of the North Coast Range, California, edited by Helen McCarthy, William R. Hildebrandt, and Laureen K. Swenson, pp. 216-221. Center for Archaeological Research at Davis Publication 8. University of California, Davis.

Oswalt, Robert L.

1964 The Internal Relationships of the Pomo Family of Languages. Proceedings of the 35th International Congress of Americanists 2:413-427. Mexico City.

Parkman, E. Breck

1995 The Supernatural Frontier in Pomoan Cosmology. Paper presented at the 29th Annual Meeting of the Society for California Archaeology, April 6-9, Eureka, California.

Pawley, Andrew and Roger C. Green

1984 The Proto-Oceanic Language Community. The Journal of Pacific History 19:123-146.

Ramenofsky, Ann F.

1987 Vectors of Death: The Archaeology of European Contact. University of New Mexico Press, Albuquerque.

Rouse, Irving B.

1986 Migrations in Prehistory: Inferring Population Movement from Cultural Remains. Yale University Press, New Haven.

Shanks, Michael and Christopher Tilley

1987 Social Theory and Archaeology. Polity Press, Cambridge.

Shipley, William F.

1978 Native Languages of California. In Handbook of North American Indians, Vol. 8: California, edited by Robert F. Heizer, pp. 80-90. Smithsonian Institution, Washington, D. C.

Stewart, Omer

1943 Notes on Pomo Ethnogeography. University of California Publications in American Archaeology and Ethnology 40:29-62. University of California Press, Berkeley.

Sutton, Mark Q.

1991 Approaches to Linguistic Prehistory. North American Archaeologist 12:303-324.

Tringham, Ruth

Engendered Places in Prehistory. Gender, Place, and Culture 1:169-203.

Webb, Nancy

1971 Statement of Some Phonological Correspondences Among the Pomo Languages. *International Jour*nal of American Linguistics Memoir 26.

Whistler, Kenneth W.

1977 Wintun Prehistory: An Interpretation Based on Linguistic Reconstruction of Plant and Animal Nomenclature. Proceedings of the Third Annual Meeting of the Berkeley Linguistics Society, pp. 157-174. Berkeley, California.

1988 Pomo Prehistory: A Case for Archaeological Linguistics. In Archaeology and Linguistics. Journal of the Steward Anthropological Society for 1983-1984, Volume 15, edited by A. M. Mester and C. McEwan, pp. 64-98. Urbana, Illinois.