

## Native Societies of North America

**The Development of Political Organization in Native North America.** ELISABETH TOOKER, editor. MORTON H. FRIED, symposium organizer. American Ethnological Society, Washington, D.C., 1983. xii, 226 pp. Paper, \$15. From a meeting, Vancouver, Canada, 1979.

Prior to continuous contact and subjugation by European powers native North America north of Mexico was characterized by modestly developed political organizations with only nominal authority invested in leaders. There were exceptions, of course, particularly among the Eastern Keresan and Tanoan Pueblos of what is now New Mexico, the Tsimshian of the Northwest Pacific Coast, and presumably several societies in what is now the southeastern United States. But for the most part either localized kinship groups, or in some cases villages or bands comprising several kinship groups, possessed relatively sovereign authority over their resource bases, their movements, their decisions to assist neighbors in defense or resource procurement, and the distribution of their resources, including reciprocity, trade, exchange, prestation, and feasting.

Although political development, particularly the centralization of authority in persons or councils, was modest, evidence of various kinds has emboldened scholars to classify native societies into types from simple to complex and to explain differences among them through evolutionary theories ("theory" is used in the everyday sense of an informed hunch about relations among phenomena). There were, after all, resource abundances in many areas, high population densities along the Pacific Coast, elaborate cult developments in California and crafts and potlatches throughout the Northwest Coast, elegant earthworks in the Sonoran Desert (main and tributary canal irrigation) and in the Southeast (mounds of various sizes and shapes), and, perhaps, classes, at least social stratification, in several societies, not to mention the widespread practice of slaveholding along the Northwest Coast.

A little over 20 years ago Elman Service published his thesis that primitive societies in native North America at earliest European contact represented a range of evolutionary types, from bands,

the least complex, through tribes, chiefdoms, and ancient states (the Valley of Mexico). A little less than 20 years ago Morton Fried, the organizer of the symposium from which the collection under review stems, published a competing theory of evolution. Both Service and Fried relied upon a couple of illustrations to validate each of their evolutionary types and tied the illustrations together in evolutionary sequences with narratives. In a non-statistical typology, of course, one example is as good as a dozen. Service's thesis enjoyed more popularity than Fried's, enhanced, perhaps, by Peter Farb's use of it in his very successful *Man's Rise to Civilization as Shown by the Indians of North America*. . . .

The essays in this volume are informal pieces, some loosely typological, some case illustrations, and some archeological summaries. In one way or another, most of the essays wrestle with the aging schemes of Service and Fried, but no author evaluates either scheme directly or provides an empirically warranted typology in their stead. Although evolutionary topics are addressed, the title of the collection misrepresents its contents. About 50 percent of the volume is given to analysis of Northwest Coast society, half of that focusing on the Northern Nootka and their Southern Kwakiutl neighbors. Another 30 percent is allocated to archeological essays in which the authors make claims concerning the nature of prehistoric social, political, economic, and ceremonial organizations in the Southeast, Northeast, and Great Basin or offer programmatic essays about how prehistoric social organization should be analyzed. The volume is rounded out by a thin piece by Eleanor Leacock on egalitarian polities among a few aboriginal and historic societies in eastern North America, a muddled piece by M. Estelle Smith on "stratified egalitarianism" among the Tiwa (Tanoan) Pueblos during the past two decades, and a spirited challenge to Fried's concept of "tribe" by William Sturtevant. Sturtevant worries from personal experience that the courts will take anthropological definitions seriously when adjudicating claims brought by unrecognized tribes (those that are not acknowledged federally). If they do, no unrecognized

tribe may fit the definition and hence all may be denied recognition and standing in court.

The centerpiece subject of the volume, the aboriginal Northwest Coast that lured Russian and British fur traders in the 18th and 19th centuries, has fascinated anthropologists for a century. Its environs, rain-soaked and relatively dark for about half the year, are rich in anadromous fish, sea mammals, bottom fish, shellfish, pelagic species, waterfowl, shore birds, and berries. But the seas and currents can be treacherous, with the result that access to some resources and to neighbors was often constrained by navigation skills and storms. The red and yellow cedar can be carved and shaped with primitive stone tools (adzes and knives) and judiciously used heat and stretching implements.

Anthropologists have labored to squeeze Northwest Coast societies into evolutionary schemes (they fitted Service's "chiefdom") thereby to explain the relations among dense, often concentrated populations, the development of arts and crafts, the accumulation of large amounts of chattels by a person in one village who invited guests from other villages to whom the chattels were given at a splendid ceremony (potlatch), the role played by slavery, the role played by warfare, and the basis and meaning of ranking—nobles, commoners, and slaves. Many of these topics are pursued here, the pursuit often generating more heat than light.

Two of the principal ethnographers of the Northwest Coast, Frederica de Laguna and the late Philip Drucker, repudiate the notions that aboriginal Tlingit (de Laguna) or Kwakiutlan and Nootkan (Drucker) societies were pressed for resources to sustain themselves, that they were organized into classes of nobles and commoners, and that localized kinship groups, even when two or more resided in the same general locale year around, relinquished their sovereignty by forming polities among several kinship groups and vesting authority for economic, ceremonial, or warfare decisions in one of their number or in a council. Drucker also repudiates the political typology—local group, tribe, and confederacy—he created 30 years earlier to classify Northwest Coast societies. There were no political organizations other than the localized kinship group.

Charles Bishop provides an exemplary analysis of the genesis of ranking among the Carrier of the British Columbian interior. Ranking and hereditary titles were adopted, he avers, during the fur trade through Tsimshian trading partners on

the coast. Bishop's contribution is important because he cogently argues that, given technology, the subsistence environment can be viewed as a constant: the fur trade, not the environment, accounts for the genesis of ranking in the interior.

Brian Ferguson, on the other hand, argues that the environment is not reasonably viewed as a constant. Using a snip-and-paste methodology that pays scant regard to time or circumstance and an assertion of "fluctuating resources" made popular by systems ecologists about 15 years ago, Ferguson claims that fluctuations in resources precipitated warfare and that warfare made potlatching and other forms of access to neighbors' resources necessary. A careful reading of Homer Barnett's *Coast Salish of British Columbia* (1955) disabuses us of such a notion. First, guests brought food to feasts and potlatches to which they had been invited. Second, in all likelihood potlatches grew from intravillage distributions after protracted contact with Europeans. As Northwest Coast populations plummeted and the desire for trade goods increased, potlatches were a mechanism to create and maintain alliances so as to avert warfare. But the desire for goods to be used in trading also promoted raiding.

Donald Mitchell and Leland Donald, in separate papers, employ the typology disavowed by Drucker, but in different ways from each other and from Drucker, to account for Northwest Coast polities. A little editorial coordination would have helped here. Donald's essay, which envisions classes and slave exploitation in production, is provocative, if also light in empirical support. On the basis of a single late-19th-century estimate, Donald assumes that slaves made up 25 percent of Northern Nootka populations, being used for production, police, domestic tasks, and ritual sacrifices.

A spate of essays by archeologists deserves mention. Robert Bettinger makes extravagant claims for social stratification, powers vested in "chiefs," and sovereign multilocal village organizations (districts) among the Northern Paiutes of Owens Valley. These Great Basin dwellers, although assumed to be somewhat more complexly organized than their Shoshonean neighbors to the east, have never before had their egalitarian political organizations reconstructed in such a fashion. In making his case, Bettinger confuses post-contact fiestas (fandangos) of the 1870's with pre-contact ceremonials (Big Times), attributes decision-making powers to chiefs where only suasion was present, and alleges that mortuary cus-

toms demonstrated that social stratification was present, even though no competent ethnographer has ever mentioned any hint of stratification in Great Basin societies. Oddly, Bettinger does not mention that Owens Valley Northern Paiute villages were organized into reciprocating pairs along the model of reciprocating moieties among their congeners, the Mono of the western Sierra watershed. More important, he does not mention that the reciprocal villages alternately sponsored biannual mourning ceremonies in which decedents during the period since the last ceremony (and all deceased ancestors) were mourned. Such ceremonies, although not uniform in practice, were common throughout California, and Miwok and Monos from California were invited to the Owens Valley, Big Pine, and Bishop events.

This mortuary business, burial remains uppermost, catches the imaginations of other archeologists who contribute to the volume, even though there are no correlations obtained from "ethnographic present" data known to this reviewer between mortuary customs and stratification, or among those variables and economic organization, ceremonial organization, and political organization. Christopher Peebles, for example, in summarizing the developments of prehistoric Moundsville, Alabama, from the 10th to the 16th century, asserts the growth of three hierarchically ranked ritual offices from what was originally a single office, the growth of an elite from 1 percent to 5 percent of total Moundsville society, better diets for the elites, exchange monopsonies (monopolies of trade) controlled by the elite, and still more, all from the analysis of 2000 burials. The nonsequiturs are awesome.

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## Water Use in Agriculture

**Limitations to Efficient Water Use in Crop Production.** HOWARD M. TAYLOR, WAYNE R. JORDAN, and THOMAS R. SINCLAIR, Eds. American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Madison, Wis., 1983. xx, 538 pp., illus. \$30. From a conference, Ithaca, N.Y., Nov. 1979.

Crop scientists generally agree that water supply affects the productivity of field crops more than any other environmental factor that can be managed by humans. The quest for more efficient use of water in crop production has intensi-

fied considerably in recent years in view of shrinking water tables, increasing contamination of the surface and subsurface sources currently used, heightened competition with industry for high-quality water, and expansion of crop production into drier regions, both in the United States and abroad. This book, the product of a working session, is an evaluation of the factors that must be taken into account in the management of water resources for agriculture.

More than a decade ago, when a similar symposium was held to consider technical aspects of efficient water use, our concern was more with food surpluses than with how to feed an ever-increasing population. Moreover, during the past decade emphasis has shifted from increasing the acreage of cropland to intensifying production on existing cropland, which requires a more careful look at responsible methods of management of crop production inputs, especially water.

Perhaps the greatest contribution of the volume is that it brings together the work of crop and soil scientists and biological and agricultural engineers. Practically every aspect of crop-water relations is considered—from the time rain or irrigation water passes into the soil and plant until it emerges again into the atmosphere. The book includes a detailed consideration of the relationships of water to shoot and root growth and development and to soil microorganisms and emphasizes how these relationships influence crop yield. For example, soil properties and management systems that affect patterns of water use as related to root morphology are emphasized in a chapter by Klepper, and the management of root systems in a range of soil environments that will lead to the most efficient use of water is discussed in one by Taylor.

Two chapters are devoted entirely, and three in part, to the role of plant breeding in enhancing the efficiency of water use, underscoring recent progress in the manipulation of germ plasm to alter traits thought to affect the process. The point is well made in a chapter by D. K. Barnes dealing with physiological traits associated with efficient use of water that little is known of mechanisms responsible for observed differences among genotypes in this regard. In order for breeders and physiologists to utilize more fully the data being generated on germ plasm as related to water stress a fuller understanding of physiological mechanisms is essential.

Manipulation of the crop is also discussed as a practical and reliable means