

Native History in North America

cheaper for more expensive inputs as relative prices change. The core of Leontief and Duchin's analysis is about how the recipes will change in response to the diffusion of technology, but the diffusion of technology is itself a response that changes relative prices of inputs and relative costs of different recipes for the same output. It is very difficult to predict rates of diffusion in this context. For example, the analysis is essentially current only as of 1980, and it is possible that the actual diffusion of microcomputers in offices by 1985 exceeds even the authors' predictions for 1990. This is not to say that the assumed rate of diffusion or the input requirements matrix is generally wrong. However, I am not confident of the accuracy of the assumptions made.

The second weakness is that the level and sectoral mix of output is assumed to be fixed and independent of the degree of diffusion of technology (with the exception of the direct production of high-technology capital equipment). The diffusion of technology affects the final costs (and hence prices) of goods. It is likely to make technology-intensive goods less expensive, and standard economic theory predicts that the demand for such goods will increase. It may also be true that the increased demand will speed the diffusion of new technology if there are economies of scale, minimum efficient scale, or learning effects that lower its cost. The DIOA cannot take any of this into account. Technology has no effect on final demand in the model. That its effect can be important is obvious from a single example: the introduction of the assembly line in mass production by Henry Ford in 1913. This resulted in lower production costs and prices, which surely stimulated demand for the Model T in particular and automobiles in general far beyond what would have been predicted by a model of the sort Leontief and Duchin use. The computer revolution may well have similar effects. Witness the proliferation of microcomputers, video cassette recorders, calculators, and digital wrist watches.

Overall, it may be that Leontief and Duchin's employment projections are not far wrong. However, the careful observer must place a very large confidence interval around their estimates. More attention needs to be paid to the effects of diffusion of technology both on the input requirements matrix through relative input prices and on the level and mix of outputs through relative output prices and even through the development of new products before I will feel confident about such projections.

HENRY S. FARBER
*Department of Economics,
 Massachusetts Institute of Technology,
 Cambridge, MA 02139*

Cultures in Contact. The Impact of European Contacts on Native American Cultural Institutions, A.D. 1000–1800. WILLIAM W. FITZHUGH, Ed. Smithsonian Institution Press, Washington, DC, 1985. vi, 320 pp., illus. \$29.95. Anthropological Society of Washington Series.

Since the 1950's considerable progress has been made in combining historical documentation with ethnographic insights in order to study what happened to native societies since early European contact. In recent years, however, ethnohistorians have realized that European accounts tell us very little about material culture and numerous mundane aspects of native life. They are also increasingly aware that changes occurred in native societies as a result of European activities in North America long before the earliest historical records of these societies. Yet, though archeological data are increasingly seen as having a significant role to play in the investigation of early relations between native peoples and Europeans, a clear rela-

tionship between archeology and the study of native history has still to be defined.

In 1981–82 the Anthropological Society of Washington sponsored a series of lectures intended to provide an archeological perspective on the earliest periods of contact that would emphasize "the effects of European contact on the institutions that organized native societies." Nine papers based on these lectures survey the eastern seaboard of North America from Greenland to Florida and the Caribbean. The major gap in coverage is Newfoundland, the Maritime Provinces of Canada, and the St. Lawrence Valley, a region that was visited annually in the 16th century by more European ships and men than traveled between Spain and its colonies in the New World. The omission of this region also means there is no discussion of French-Indian relations, the northern fur trade, or recent extensive and very productive research on protohistorical and historical Indian archeology in southern Ontario. Nevertheless the papers present an interest-

Greenlanders from the Nuuk area captured and taken to Europe by David Dannel in 1654. This portrait was painted by Dannel in Bergen, Norway, after his return from Greenland. [From H. C. Gulløv's paper in *Cultures in Contact*; collection of the National Museum of Denmark]



ing sampling of Scandinavian, English, and Spanish contacts with native people in environments that range from arctic to tropical, beginning with the Norse settlement of Greenland in A.D. 982. The volume as a whole and the four sections dealing with the Arctic, New England, Virginia, and the South are each introduced by a substantial commentary by Fitzhugh, who also contributes a paper on early contacts in Labrador.

Two contrasting approaches to the archeological study of early contacts are found in this book. The contributions of anthropological archeologists, in particular those of Fitzhugh and that of E. R. Turner on the rise and fall of the Powhatan "chiefdom," are deeply colored by the ecology and neoevolutionism that have characterized American archeology since the 1960's. Though ecological analysis is essential for understanding some vital constraints on human behavior, archeologists increasingly are recognizing that it does not account for much significant diversity of human behavior. Turner's argument that the Powhatan state developed toward the end of the 16th century as a response to local environmental stresses related to population increase does not take account of historical evidence suggesting marked declines in population beginning at least as early as the 1570's. Moreover, when these papers attribute change to non-ecological factors, they invoke acculturation, national character, and other concepts that were common in ethnohistorical studies 20 years ago. They also manifest an old-fashioned fondness for facile developmental parallels and broad generalizations.

At the other end of the spectrum are studies that have been explicitly influenced by recent developments in ethnohistory. Shunning simplistic neoevolutionary approaches, these take account of historical traditions and a multiplicity of economical, political, and psychological factors that influence human behavior. Instead of viewing native adjustments to Europeans as a unidirectional process of acculturation, they strive to understand how and why traditional elements of native cultures frequently persisted and intensified despite growing dependence on Europeans. They also note that in early contact situations accommodation often cut across ethnic and cultural boundaries, pitting Englishmen against Englishmen and members of the same native peoples against each other as different interest groups pursued their various goals. F. J. Fausz's paper on English-Indian relations along the mid-Atlantic coast from 1584 to 1634, which is based entirely on ethnohistorical data, is an excellent example of what such an approach can accomplish. Fausz argues that the development of the Powhatan state was a re-

sponse by Algonquian groups who found themselves caught between traditional enemies to the west and English settlers along the coast.

The archeological study of a late-17th-century Narragansett Indian cemetery in Rhode Island by Robinson, Kelley, and Rubertone indicates a strong adherence to traditional mortuary practices and a persistence of Narragansett religious beliefs despite widespread disease and European domination. Like Fausz's paper, P. A. Thomas's study of Indian-European interaction in the Connecticut Valley in the 17th century documents the complexity of these relations. Thomas also demonstrates how in this region the gradual substitution of land for furs as a commodity of exchange modified social and economic patterns. Archeological data from a fortified Sokoki village site are used to supplement the historical record. Finally William Engelbrecht, in a study that pays considerable attention to oral traditions, presents archeological evidence that suggests that the League of the Iroquois originated in prehistoric times, although it was further consolidated as a result of European contact.

It would appear that the most profitable way for archeology to enrich the study of native history is through growing cooperation between archeologists and ethnohistorians. North American anthropologists

should examine more closely the work of their Australian counterparts (not mentioned in this book) who have succeeded in integrating archeological, as well as ethnological and historical, approaches into their own version of ethnohistory.

None of these papers attempts to assess what specific contributions archeology may make to the study of native contacts with Europeans. Changes in demography, community distributions, land use, and household composition can be elucidated by settlement pattern studies. Burials and grave goods reveal changes and persistence in ritual behavior. Differential distributions within sites, such as those documented by Kathleen Deagan in Florida Indian communities of the mission period, indicate unequal access to rare goods. Yet, until more is known about how native peoples recycled, lost, and abandoned European goods, the full significance of the artifacts found in habitation sites will remain obscure. This is especially true of short-lived sites, such as the one Thomas examined in the Connecticut Valley. These are questions that must receive urgent attention if archeology is to play a more significant role in the study of native history.

BRUCE G. TRIGGER
Department of Anthropology,
McGill University,
Montreal, H3A 2T7, Canada

Social Structure in the Pleistocene

The Upper Paleolithic of the Central Russian Plain. OLGA SOFFER. Academic Press, Orlando, FL, 1985. xxiv, 539 pp., illus. \$98.50; paper, \$49.95. Studies in Archaeology.

Olga Soffer's study of the Upper Paleolithic of the central Russian Plain is an important work for several reasons. First, she provides in one volume comprehensive data concerning the geology, archeology, and natural resources underlying one of the most spectacular manifestations of late Pleistocene culture anywhere in the world. Heretofore, most of these data have been available only scattered among Russian-language sources. Second, she is able to work the disparate and often uneven data into a theoretical framework that reflects contemporary ecological and social structural concerns. Finally, she argues the case for a much richer and more complex level of social organization than heretofore has been recognized for this period among hunter-gatherers. What makes the book especially valuable is that the reader can utilize the data to explore a variety of questions not developed in the interpretative part of the text.

Conventionally, late Pleistocene hunter-gatherers are represented as small and low-density populations with relatively mobile settlement systems, egalitarian social structures, and a paucity of material possessions. It has been primarily in cases where they were able to sedentarize around abundant marine resources that more elaborated social behaviors are recognized. Inland groups, even those dependent on quite plentiful game animals such as bison, reindeer, or horse, are not usually ranked very high on the scale of social complexity. Soffer's exhaustive review of the Upper Paleolithic archeology of the central Russian Plain has led her to challenge the traditional view. What emerges from her study is a picture of growing status differentiation of populations in the period between 26,000 and 12,000 years ago. Terms such as "scalar stress," "labor control," "status hierarchization," and "secularization" are used to describe behavior and process on the basis of her reading of the archeological record.

What is it in the archeology of the central Russian Plain that leads to this revised view?