

laboratories to which I returned and the new Churchill College in which I stayed are lasting monuments to the efforts that Todd has made on behalf of Cambridge.

Todd is a man of great charm, with a strong interest in other people. Much of this comes through in his book, which is populated with the leading figures of modern chemistry and many friends and associates. This is largely an account of Todd's professional life, however, and in only a few cases is there much personal characterization of the people involved.

In addition to insights into a fascinating career, the author leaves us with some advice of general value to all scientists. On choosing a research field, he suggests that young scientists look for one that is important, that has scope, and in which they will be the principal contributors to the literature. With respect to government support of science, he writes, "In science, the best is infinitely more important than the second best;—a country which ignores or forgets it does so at its peril." The career of Alexander Todd indicates that these principles have indeed guided his life.

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Paleoindian Assemblages

The Agate Basin Site. A Record of the Paleoindian Occupation of the Northwestern High Plains. GEORGE C. FRISON and DENNIS J. STANFORD. Academic Press, New York, 1982. xx, 404 pp., illus. \$74.50. Studies in Archaeology.

Frison and Stanford have done us the great service of bringing the scattered archeological data from a classic Paleoindian locality together with a series of environmental and specialist studies and making the collection available in publication. The Agate Basin "site" is actually a series of Paleoindian activity loci that have been investigated over the years by numerous individuals, beginning with F. H. H. Roberts in 1941. The most recent work by the University of Wyoming and the Smithsonian Institution led up to the present compilation.

The Agate Basin site taken together comprises a classic stratified sequence of Paleoindian occupations, including Clovis, Folsom, Agate Basin, and Hell Gap components. The monograph is primarily a descriptive and analytic presentation of the archeology of these components

and the paleo-environmental-contextual studies associated with them. In addition to the straightforward description of the components and their artifactual content, there are very useful chapters on flaked stone technology and typology by Bruce Bradley, on the production of the famous Folsom point by Bradley and Frison, and on the bone tool assemblage by Frison and Carolyn Craig. Of considerable interest is the detailed technological-typologic similarity between the Folsom and Agate Basin components. The study of Paleoindian core preparation and lithic reduction techniques is particularly useful. One could have wished for a more detailed, more sensitive, or more relevant analysis of the unifacial flake tools than that based on the adoption of Bordes's 1961 *Typologie de Paléolithique Ancien et Moyen*. The experimental reconstruction of the Folsom fluting technique is ingenious and, since it reproduces the evidence exactly, seems highly probable. Of interest is the inference that, since fluting seems to serve no obvious function and is difficult and wasteful of material, it may have had a socio-ceremonial function.

The "anthropologically" oriented portions of the volume focus on the reconstruction of specific Paleoindian activity sets. Of particular value are Frison's analyses and inferences on bison procurement strategies. From the character of the bison dentition and other evidence, he believes that the Clovis hunts may have taken place in the spring, whereas those of the Folsom, Agate Basin, and Hell Gap components represent large-scale communal activities occurring in the winter. In a comparison of the topographic situation at Agate Basin with that at other well-known early kill sites, he concludes that entrapment of bison herds involved a skillful use of a combination of natural and human obstacles. The disposition of the bison remains suggests regularized meat-processing activities and the piling of meat into frozen storage caches. The specific character of the activities represented seems to reflect primarily meat processing rather than actual "kill sites." Bradley's lithic studies document weapon and other tool production and repair. Together the evidence suggests short-term specialized occupation.

The ancillary studies in paleontology (Zeimens, Frison, and Walker), geology (Albanese), soil development (Reider), vegetation (Marlow), pollen (Beiswanger), phytoliths (Lewis), and gastropods (Evanoff) are all competent and add considerably to the general utility of the

volume. The series of soil studies for inferring paleoenvironmental conditions are particularly useful and tend to confirm other reconstructions of late-Pleistocene-early-Holocene climatic conditions for the High Plains.

Frison and Stanford conclude with a summary section and a culture-historical perspective on the relations between the assemblages. As a whole the volume constitutes a very valuable and welcome addition to the literature on the Paleoindian occupation of western North America.

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Books Received

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