

message of this volume is that genetic variation at the intraspecific level can be critically important to ecological processes. But equally this volume impresses upon us the fact that our knowledge is at best fragmentary."

Nevertheless, the book leaves us with an optimistic vision of the future. As several authors point out, the development of molecular techniques makes the study of plant-enemy interactions ripe for accelerated progress. Whereas it has previously been difficult to track resistance genes in natural populations, we can now make use of restriction fragment length polymorphisms. And whereas it has previously been difficult to disentangle the effects of resistance genes from other linked traits, it is now possible to manipulate levels of resistance through genetic engineering. These and other techniques open new avenues for examining how plant resistance influences the ecology and evolution of species assemblages, and it is certainly hoped that evolutionary ecologists will exploit these techniques fully. As our ability to detect and manipulate genetic variation becomes more sophisticated, it should be possible to explore how genetic changes alter interspecific, and even community, dynamics. Antonovics dubs this new pursuit "community genetics" and in his concluding comments meets the organizers' second stated goal, which is to "show how research in these fields, by integrating genetic with evolutionary and ecological methods, can contribute to a new evolutionary synthesis."

Joy Bergelson

Department of Biology,  
Washington University,  
St. Louis, MO 63130

## Altamira and Environs

**Iberia before the Iberians.** The Stone Age Prehistory of Cantabrian Spain. LAWRENCE GUY STRAUS. University of New Mexico Press, Albuquerque, 1992. xiv, 336 pp., illus. \$40.

Cantabrian Spain is that narrow band of mountainous north coastal Spain that faces the Bay of Biscay, also known as the Cantabrian Sea. Since the 19th century, this rugged, magnificently beautiful region has played a critical role in archeology's struggle to construct an understanding of human life in the Upper Paleolithic. Straus has attempted in this book to redress what he considers to be an undue scientific and journalistic emphasis on the overpowering French Paleolithic record just to the north.

One of the more important contributions of the book for English-speaking readers is Straus's sensitive treatment of the history of Paleolithic research in Cantabrian Spain.

He reminds us that Paleolithic cave art was first recognized in Cantabria, at Altamira, and that prior to the Spanish Civil War the level of research activity in Spain equaled that in France. A particularly interesting aspect of Straus's historical treatment is his discussion of American involvement in Cantabrian Paleolithic research both before and after that war. With this history in mind, Straus notes that his synthetic treatment of Cantabrian prehistory is the first in English since the 1924 translation of Obermaier's *Fossil Man in Spain*. Rather than an encyclopedic work documenting discoveries and stratigraphic complexities brought to light in the past 70 years, however, he has provided us with a work most suitable and effective as an introduction for the nonspecialist.

The poverty of illustrated artifacts, stratigraphies, features, and sites in the book means that for encyclopedic coverage of Paleolithic archeology in Cantabrian Spain scholars will still have to turn (with the aid of Straus's comprehensive bibliography) to Spanish works by Barandiaran, Jordá, Bernaldo de Quirós, and Utrilla. This is not to underestimate the importance of the 47 pages of appendixes containing site-specific data on lithic artifacts, faunal remains, organic tools, and radiometric dates, which provide a precious and enduring research resource for American scholars.

This book deals overwhelmingly with the Upper Paleolithic, the complex sequence of cultural innovation and change that began with the first appearance of *Homo sapiens sapiens* in Europe (about 40,000 years ago) and ended at the close of the last glaciation (about 10,000 years ago). It focuses on Cantabrian Spain and does not address the entire Paleolithic sequence of Iberia as a whole, as one might expect from the title. This geographic and temporal unevenness in coverage reflects Straus's own research specialty, and to some extent the patchiness of the known archeological sequence. Anyone interested in periods other than the Upper Paleolithic and places other than north coastal Spain should look elsewhere.

Straus is committed to the view that we must understand the developments of prehistory from an ecological perspective, that is, as a series of readjustments to changing environmental circumstances. To that end, he has provided perhaps the best environmental and paleoenvironmental overview of Cantabrian Spain available in any language. The waxing and waning of various archeological cultures are clearly situated in their paleoenvironmental contexts, although we remain far from having a thorough understanding of the place of humans in these ancient ecosystems.

Straus's interpretative style, conservative by the standards of American archeology, reflects both the best and, from a European perspective, the worst of Paleolithic arche-

ology as practiced by Americans. Its strength is that Straus asks questions about human behavior (settlement patterns, subsistence practices, mortuary behavior) and adaptation in a field in which European practitioners often glorify the artifacts as such. But many Europeans will see it as exemplifying an American tendency to pursue broad generalizations based on too few cases.

Many Europeans and Americans will also disagree with the strictly functionalist interpretative stance. In a time when so-called positivist research strategies in archeology are under attack, it is refreshing to see a commitment to and optimism about the ability to gain access to the past using the tools and research strategies of a "scientific" archeology. But I believe that Straus's embracing of a view of Cantabrian cave art that sees it as a sort of primer for educating young hunters, which he prefers to "grand interpretive schemes that somehow want us to enter into the minds of long-dead people," makes insufficient use of anthropological archeology's great strength: its ability to juggle simultaneously a diversity of theoretical perspectives from the natural sciences, the social sciences, and the humanities. In ignoring the degree to which the content of people's minds conditions what goes into their stomachs, Straus's view of graphic representation as merely a system "for gathering, storing and transmitting important survival information" is as extreme as the speculative approaches he seeks to avoid.

In the end, Straus has done for the Cantabrian Paleolithic what Richard Klein achieved for the Paleolithic of Russia: He has rendered it more visible, immediate, and accessible to a broad American scholarly and lay audience. Not only does this move us away from the traditional Francocentric view of Paleolithic Europe, it is likely to stimulate considerable interest among a new generation of English-speaking researchers.

Randall White

Department of Anthropology,  
New York University,  
New York, NY 10003

## Aeronautical Entrepreneur

**The Universal Man.** Theodore von Kármán's Life in Aeronautics. MICHAEL H. GORN. Smithsonian Institution Press, Washington, DC, 1992. xiv, 202 pp. + plates. \$24.95. Smithsonian History of Aviation Series.

Theodore von Kármán, the great Budapest-born aerodynamicist, was one of the earliest representatives of the Central European diaspora that infused American science in the