

an oversight. He is also firmly wedded to the less politically correct terms, “AD”, and “BC” (e.g., p. 146), rather than “CE” and “BCE” now preferred by most American archaeologists.

In general, the book is useful as a general reference for some dating techniques, K/Ar, TL, OSL, fission track, but for ESR and AAR it falls far short of the standard. As a textbook at any level, its many small and a few large errors combined with poor overall coverage would require the instructor to supplement it with significant amounts of outside readings.

Grasshopper Pueblo: A Study of Archaeology and Ancient Life. Jefferson Reid and Stephanie Whittlesey. University of Arizona Press: Tucson. 1999. xiv+186 pp., 32 photos, 8 illustrations, index. Price: \$29.95 (cloth) ISBN 0-8165-1913-7 or \$15.95 (paper) ISBN 0-8165-1914-5.

Reviewed by Michael D. Pool, Anthropology/Geography Department, Austin Community College, 7748 Hwy 290 W., Austin, TX 78733 USA

As an alumnus of the University of Arizona Field School at Grasshopper Pueblo, I looked forward with great anticipation to reviewing this book, and it generally met my expectations. Any shortcomings are due to its brevity and its attempt to satisfy both the general public and professional archaeologists. The authors attempt to summarize knowledge about life at Grasshopper Pueblo and document the history of research for current and future researchers, while at the same time crafting a story for the non-archaeologist. This latter goal is aimed specifically at the White Mountain Apache and other Native American peoples, as well as non-Indians interested in understanding southwestern prehistory. Additionally, the authors describe archaeology fieldwork at the field school in order to educate the public about the process of archaeology.

The book parallels the development and evolution of Grasshopper Pueblo with that of the field school. Both have an establishment phase, then an aggregation phase, followed by a disaggregation/depopulation phase, and lastly, abandonment. This metaphor is followed throughout much of the book with events reconstructed for the prehistoric period paralleled by events of the field school. Chapter 1 discusses the environmental and social context and general history of the pueblo and the field school. Chapters 2 and 3 discuss the establishment and aggregation phases. Then, Chapter 7 outlines the dispersion and abandonment phases. Chapters 4-6 are the meat of the book for archaeologists. They outline the conclusions of thirty years of research at Grasshopper Pueblo. Chapter 5 discusses the subsistence ecology of both the pueblo and the immediate region. Chapter 6 outlines the sociology of Grasshopper Pueblo. Lastly, Chapter 6 discusses ideology, religion, and art.

Before A.D. 1275, mobile foraging and horticultural Mogollon inhabited the Grasshopper region. During the latter part of the 13th century, the Great Drought forced some of the Anasazi off the Colorado Plateau and into the Grasshopper region, where precipitation was better. Three small excavated pueblos represent this period: Chodistaas, Grasshopper Spring, and an incipient Grasshopper Pueblo. These partially masonry

20-room pueblos reflect the development of full sedentism forced by the influx of population, resulting in increased competition for resources and an atmosphere of tension and uncertainty. Chodistaas is characteristically Mogollon, while Grasshopper Springs, its contemporary, is Anasazi. Around A.D. 1300, Chodistaas and Grasshopper Springs pueblos were abandoned, and aggregation began at Grasshopper Pueblo.

The period between A.D. 1300 and 1330 saw significantly increased precipitation. At the same time Mogollon pueblos in the region increased in size to 100-1000 rooms. Grasshopper Pueblo grew into a 500-room pueblo. Room Block 3 appears to have been inhabited by people from Chodistaas Pueblo, and Room Block 2 inhabited by the original Grasshopper Pueblo population. Across the old channel of Salt River Draw, the Anasazi inhabitants from Grasshopper Springs Pueblo lived in Room Block 1. The differences in ethnicity are marked by differences in ceramics, architecture, head shape, and burial behavior. Two examples are the distribution of bird burials and head shape. The east village of Room Block 1 (Anasazi) contains only formal turkey burials, while the west village of Room Blocks 2 and 3 (Mogollon) contain formal burials of red-tailed hawks, golden eagles, and macaws and the remains of blue-feathered and black-feathered birds. Vertical occipital deformation marks Mogollon burials in Room Blocks 2 and 3, and lamboidal deformation marks Anasazi burials in Room Block 1.

The household appears to have been the basic unit of organization, and there appears to be no evidence of a hierarchy. Inter-marriage and societies/sodalities integrated the pueblo. There is clear evidence for four all-male societies, including the pre-eminent “Arrow” society. These societies were delineated through the differential but patterned distribution of burial goods, including bundles of arrows. One burial of a high status male under Plaza 3 (later converted into a Great Kiva) indicates that membership, as well as leadership, in more than one society was possible. In this case, the individual appears to have been leader of both the “Arrow” society and the “Bone Pin” Society.

The authors also suggest there is the possibility of a dual division, or moiety, organization between the east village and the west village. However, it seems just as likely that these differences are purely ethnic.

The establishment period marks the transition from a prior semi-sedentary, foraging and horticultural subsistence pattern to one fully dependent on agriculture in the aggregation phase. The consequences of this transition are seen in the burials recovered from Grasshopper Pueblo. There are widespread skeletal abnormalities indicating chronic as well as acute food shortages and anemia. There are also a high number of dental abnormalities, including caries, abscesses, tooth loss, and interrupted dental enamel development. There was also an extraordinary infant mortality rate; 56% of the burials are infants.

The evidence suggests that Grasshopper Pueblo did not participate in a complex long-distance, large-scale trading system and so, did not require an elite to manage valuable commodities. Manufacturing seems mostly oriented to domestic and ceremonial consumption. The only evidence for manufacturing export items is turquoise pendants and pottery. Evidence for importation is sparse and includes macaws (imported as adults), copper bells, and shell ornaments.

A prolonged drought marked the period between A.D. 1330 and A.D. 1355, and the population at Grasshopper Pueblo appears to have begun a process of seasonal dispersion and mobility by part of the population in response to these conditions. During this same period, cliff dwellings, such as Canyon Creek Pueblo, appear in the region. A number of outliers of partial masonry construction and generalized habitation activities represent the seasonal aggregation of dispersed households at Grasshopper Pueblo. In addition to the construction of outlier room blocks, Plaza 3 was converted into a Great Kiva, showing an increased need for social integration.

From A.D. 1355 to 1400, dispersion increased until finally Grasshopper Pueblo, and, ultimately, the region, was abandoned. Then, like the pueblo, the field school abandoned the work and facilities for fresher grounds after the 1992 field season.

Grasshopper Pueblo is an outstanding success as a non-technical introduction to a prehistory of a portion of the American Southwest and to archaeology in general. As a publication for professional or serious advocational archaeologists, it is less successful. I can only hope that this is not the end of publication of the thirty years of research at Grasshopper Pueblo. Something, at least on the level of the now ancient *Multidisciplinary Studies at Grasshopper Pueblo* (1982), is needed.

While reading the book several things nagged at me. A comprehensive bibliography of the thirty years of research would be extremely helpful, not only for current researchers but for future ones (but one has been published elsewhere: Reid 1999). While the authors sketched out the arguments for their conclusions, there is not a full development of these arguments.

Lastly, I kept running into the disorientation that different perspectives can cause. My perspective is from the Mimbres and Reserve branches of the Mogollon in southwestern and west-central New Mexico, so some of the encompassing statements in this book struck me as, at the least, not quite right. When I limited these statements to the Grasshopper region, they made more sense.

I particularly have a hard problem with the idea that the Anasazi brought "a more sophisticated dry-farming technology and a stronger commitment to corn agriculture." This may be true for the Grasshopper region but is not for the Mimbres branch and probably not for the Reserve branch. The relatively sudden increase in population size and density strikes me as more than enough to explain the shift to increased sedentism and dependence on agriculture, whether or not the increase resulted from endogenous or exogenous processes.

The fact that Reid and Whittlesey argue that the Anasazi needed to bring more sophisticated knowledge of and commitment to agriculture to explain the increased sedentism and agricultural dependence in the Grasshopper region is debatable. The resident Mogollon practiced horticulture for hundreds, if not thousands, of years before the influx of Anasazi, and it seems likely that they had a more sophisticated knowledge of agricultural practices in their environment and cultigens that were better adapted to the mountain environment of the region. Besides, what is the more sophisticated knowledge the Anasazi brought? The evidence for intensification of production is limited to checkdams and linear borders, things that are ubiquitous throughout the Mogollon area and the Southwest.

In the end, these picayune flaws do not seriously detract from the information and story presented in this book. It provides a good introduction to the research at Grasshopper Pueblo for the non-archaeologist and researchers not familiar with the American Southwest, especially Grasshopper Pueblo or the Mogollon.

Reference

Reid, J. Jefferson. 1999. The Grasshopper-Chavez Debate: Existential Dilemmas and Archaeological Discourse. In S. Whittlesey (ed.), *Sixty Years of Mogollon Archaeology: Papers from the Ninth Mogollon Conference, Silver City, New Mexico, 1996*, 13-22. Tucson: SRI Press.

Clovis Blade Technology: A Comparative Study of the Keven Davis Cache, Texas. Michael B. Collins; with a chapter on microscopic examination of the blades by Marvin Kay, University of Texas Press, Austin, 1999. xii + 234 pp., 82 figures, 2 tables, glossary, index. \$40.00 (cloth). ISBN 0-292-71215-4.

Reviewed by Harry B. Iceland, Department of Anthropology, Florida Atlantic University, Boca Raton, FL 33431 USA

This book makes an important contribution to a newly revived debate on the significance of the Clovis phenomenon and the timing and migration routes of the peopling of the New World more generally. The current interest in Clovis extends beyond the ever-attractive subjects of the finely-flaked fluted points and mammoth kill sites to include distinctive Clovis attributes that have sometimes been overlooked: caching, the use of exotic lithic materials, bone and ivory artifacts, and core-blade technology. New finds and new interpretative approaches also take place against a backdrop of skepticism towards the romantic notion of specialized Clovis big-game hunters and the nearly complete acceptance of the existence of earlier, pre-Clovis immigrations to the New World.

This book has three parts. The first part begins with a discussion of blade technology. The various aspects of prismatic blade production are explained and illustrated with an excellent series of schematic drawings and by photographs of the replicative work of knapper Glenn T. Goode, along with Goode's insightful commentaries on his craft. The discussion of Clovis lithic technology that follows deals briefly with biface production, but focuses heavily on core-blade technology, as might be expected. This section contains a table of 42 Clovis sites and references used for this study that will be useful for those pursuing further research on the subject. The table highlights the uneven regional distribution of Clovis blades, however, as only one of the sites listed is found east of the Mississippi (Dust Cave, in Alabama). The scarcity of blades in eastern Clovis assemblages is puzzling, especially since the blade-like flakes preferred for Clovis point blanks may, according to the authors, be products of the same core-blade reduction sequence as the prismatic blades, which were not used to make points. The discussion of Clovis blade technology in this section is thorough and well-illustrated with photographs (including macrophotographs) and