disciplined knowledge that continued throughout the twentieth century. (p. xv)

In his closing comments Hinsley observes that although the change from the archaeology of Cushing to that of Kidder brought

> southwestern archeology ...new scientific rigor, the Southwest of fictive imagination adopted the romance of archaeological discovery as a central trope in exploring larger issues of national youth and aging, of America's history and purpose. In that process, what did archaeology teach? What kind of human society had grown and might rise again in this landscape? Here the lessons of Mary Hemenway's expedition promised to reach well beyond archaeology. They pointed toward a future social order, one that would resemble and to a degree resurrect the prehistoric communities then being discovered. It would be a human world premised on cooperation rather than destructive competition, mutual tolerance and independence rather than divisive greed, peaceful commonwealth rather than warlike imperium. (p. 206)

We will look forward to future volumes in this series for more about the results of the remarkable Hemenway Southwestern Archaeological Expedition.

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***Mousterian Lithic Technology: An Ecological Perspective*, by Steven L. Kuhn, Princeton University Press, Princeton, N.J., 1995. xiv + 209 pages, 56 figures, 48 tables, references cited, index. $ 49.50 (cloth).**

by

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Data originating in old excavations are often regarded by archaeologists as being of poor quality or even unusable. Such assemblages lack the stratigraphic and temporal resolution of material acquired by modern excavations and are the product of research projects designed for the investigation of issues profoundly different from those concerning modern researchers. Steven Kuhn's *Mousterian Lithic Technology* demonstrates that this kind of data (in this case coming from 40-plus-year-old excavations) can be successfully incorporated into current research agendas, as long as one uses them for addressing research questions appropriate to the resolution of the data, in this case human behavioural changes on an evolutionary scale. Kuhn bypasses the debate over the biological and/or cultural continuity vs. discontinuity between Neanderthals and modern humans. He argues convincingly that archaeological research will benefit from a disentaglement with the anthropological and the genetic discussions. He maintains that Mousterian material culture and behaviour deserve to be studied in their own right as successful adaptations that persisted over at least 200,000 years, rather than as those replaced by modern human behaviour.

In the past decade, Middle Palaeolithic research, though overwhelmed by the debate over the origins of anatomically modern humans and the evolutionary fate of the Neanderthals, has seen profound theoretical and methodological developments. While faunal and site-structure studies have been gaining credibility as alternative lines of evidence on past behaviour, lithic analyses have been enriched by the introduction of reduction sequence (*chaîne opératoire*) analyses, studies of raw material acquisition strategies and a growing consideration of the implications of the 'use histories' of artefacts for the composition of lithic assem-

blages. Kuhn draws upon some of these developments (*chaîne opératoire* studies, raw material research, faunal analyses) and successfully manages to use them as heuristic tools towards the analysis of regional behavioural variability within the Mousterian. This clear theoretical orientation is lacking in many other recent works. Furthermore, Kuhn incorporates some of the lessons of methodologies developed outside the USA (*chaîne opératoire*, raw material studies) into a methodology that is more along the lines of processual archaeology, giving him a research agenda that is in concert with current dominant concerns in Middle Palaeolithic research.

Kuhn's ecological perspective on Mousterian lithic technology is clearly defined as an attempt to explore "how toolmaking was linked to an influenced by hominid subsistence and land-use." Toolmaking is seen as a costly activity: the procurement, transport, manufacture and re-use of lithic raw materials or finished artefacts carries a cost in times and energy. Among these activities, procurement is the most potentially costly, due to the uneven distribution of raw materials across the landscape. For this reason, strategies for providing groups of mobile hunter-gatherers with lithic raw materials and/or finished artefacts form the basis of Kuhn's interpretative framework (Chapter 2). He identifies two basic provisioning strategies, 'provisioning individuals' and 'provisioning of places', each with direct implications for the composition of lithic assemblages, and each linked with different degrees of residential mobility. Highly mobile groups are expected to rely more on provisioning individuals with portable toolkits. Emphasis is placed on maximising utility per weight of the transported material, and on lengthening the useful lives of artefacts through extensive re-use and resharpening. Groups that move less frequently or repeatedly occupy the same locations are expected to provision these locations with raw materials and can afford to ease pressures on maximizing utility and artefact maintenance, even in areas where raw materials are not plentiful. This is a clearly presented, sound theoretical model, based mostly on ethnographic evidence. It follows the processual paradigm, and as such could be subject to post-processual criticism, mostly for its over-rationalization of human behaviour. In the succeeding chapters of the book, this sound theoretical framework is followed up by careful hypothesis development and rigorous statistical testing.

Kuhn's specific subject of analysis is the Pontinian, a variant of Mousterian technology with localised distribution (coastal Latium in west-central Italy). The Pontinian had been regarded as a highly uniform industry with little typological variability within it. Its particular characteristics (small implement size, high frequency of retouched pieces, intensive, Quina-type retouch, infrequent use of the Levallois technique) have often been attributed to the small size of the locally available flint pebbles. Kuhn finds inter-site variability in core reduction sequences, intensity of core and tool reduction and relative frequency of potentially exotic raw materials. From these, though, only the intensity of core reduction seems to vary in accordance with raw material availability in the surroundings of each site. Inter-site differences in the ways cores were worked, the frequency of retouched tools, the intensity of tool resharpening and the frequency of exotic raw materials do not seem to correlate with local raw material availability. But they do seem to co-vary with the three groups of faunal assemblages — scavenging-associated, hunting-associated and carnivore-dominated — that Mary Stiner has identified. The lithic assemblages associated with scavenged faunas are more commonly generated by centripetal core reduction, show higher intensity of tool reduction and higher frequency of potentially exotic raw materials, while those associated with hunted faunas are often produced with parallel core reduction, are less intensely utilised and have fewer potentially exotic pieces. Lithic assemblages associated with carnivore generated faunas vary randomly between the two ends of the spectrum.

From this pattern Kuhn deduces that groups that primarily practised scavenging were more mobile and provisioned individuals with portable toolkits (hence the emphasis on economising lithic resources), while groups that relied more on hunting moved less or moved between fixed locations that they provisioned with raw materials and did not need to make very intensive use of the available lithic resources. In other words, the lithic and faunal data co-vary because they both reflect the underlying foraging and mobility patterns. The agency behind the shift in foraging pattern is postulated to be changes in local environment resulting

from sea level oscillations. This idea is supported by the fact that the scavenging assemblages pre-date 55,000 BP, while the hunting assemblages post-date it. 55,000 BP is often, though not unanimously, associated with a climatic deterioration and a drop of sea levels. Kuhn emphasizes, though, that the patterns observed amount to shifts in the relative abundance of elements that persist throughout the Pontinian.

Despite the somewhat overambitious title of the book, Kuhn is very cautious when addressing the wider implications of his findings for either the Italian Mousterian or the current main issues of Middle Palaeolithic research. After all, this book is important because of its innovative approach to complementary lines of archaeological and environmental evidence. The lithic and faunal analyses that form the basis of this work were designed in parallel and are directly compatible. Kuhn worked in an area that is not traditionally at the heart of Palaeolithic research and used data with pronounced resolution limitations. But the outcome provides a very good and potentially influential example on how to explore early human behavioural variability at the regional level.

Snapshots of the Past, by Brian Fagan. Alta Mira Press (Sage Publications), Walnut Creek, CA., 1995. 163 pp., 1 map, 4 plates, guide to further reading. $14.95 (paper).

by

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Brian Fagan is well known for his archaeology books written for a general pubic as well as his textbooks. This book is a collection of his articles originally published as bimonthly "Timelines" columns in *Archaeology Magazine*. As he states in the preface of the book, his articles were meant to entertain, inform and sometimes wax indignant on a wide variety of archaeological subjects. His intent was to make available to a wide audience short stories that "navigated through the maze of detailed and specialized literature, creating snapshots of archaeology, archaeologists, and our complex, multifaceted past." The collection of 27 articles he chose for the book were published between 1988 and 1995; in addition, Fagan wrote two new articles for the book (one on prehistoric art and the other on the lives of Egyptian townspeople), for a total 29 articles.

The book includes a preface and an introduction, with the 29 articles divided into four sections: Early Lifeways; Commoner, Camels and Great Lords; Issues in Contemporary Archaeology; and Archaeology and Society. Each of the four sections are preceded with a general introduction written for the book. The articles in the first section discuss early hunter-gatherers, hominids, and farmers. The second section consists of articles concerned with aspects of early civilization and recent historic societies. The third collection of articles explores major controversies in archaeology such as Eve, the first Americans, gender, cannibalism, dog-drawn sleds used by Plains Indians, and the problem of archaeological investigations that are not published. Articles in the fourth part discuss ways in which archaeology intersects with modern people's lives including looting at Slack Farm in Kentucky, unexpected archaeological discoveries, stewardship of archaeological sites, working with museum collections, and archaeology of the 1920s movie set for *The Ten Commandments* in southern California.

The articles in Fagan's book are well written and, for the most part, are stimulating and interesting. All of the articles are very short (3 to 5 pages), making this book easy to read in short stretches of time, much like a *Reader 's Digest* of archaeology. Since the general public is often fascinated by the work archaeologist do, and the problems that archaeologist face in the course of their work, this book should be popular to a general