Archeology


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In the discussion of "Stone Tool Materials" the author covers old world sources of suitable lithic materials, but does not exclude the use of bone, antler and wood as possible materials for fabrication. Emphasis is placed on the importance of tool manufacture and its relationship to siliceous flint-like minerals that fracture in any direction when subjected to applied force. The chapter implies but possibly should stress man's unending search for choice lithic materials for specific functional purposes, and the transportation of stone from its source to the final destination. Illustrations cover the nomenclature of flakes and flake scars and show some knapping methods.

In reporting on the Core Tools, "Choppers and Bifaces," Bordaz explains two basic methods of flaking stone to make implements with a cutting edge and describes the formation of the core tool by removing surplus material from the parent mass and retaining the nucleus as the end product. Methods of fabrication are suggested for hand axes and choppers in time and space, from the most elementary tool kit of Acheulian implements that show man's advancement in technology. The chopper, chopping tool tradition lasted at least throughout the Middle Pleistocene during which time new technological developments evolved. Man's skill improved by the selection of the proper percussors, platform preparation, possible holding techniques, and calculation of the critical angles and amount of applied force necessary to fracture an area of predetermined size. Also he learned to prolong the time factor or interval of applied force on the platform and to take advantage of the ridges to detach longer flakes. The toolmaker learned to preconceive the implement and to devise methods of detaching flakes to leave a sharp uncrushed edge, to methodically arrange the sequence of flake removal and to use the previous flake scar as a platform for removing the next flake, and ultimately to thin the piece by applying force on specially prepared platforms.

The chapter on "Prepared Flake Nuclei: Levallois and Mousterian Flake Tools" contains schematic drawings of the Levallois...
technique of nucleus preparation for removal of a flake tool. This shows a combination of the basic qualities of both core and flake tools. The Levallois technique was comparatively inefficient and wasteful, removing only one or two usable flakes, whereas the Mousterian knappers detached usable flakes from the core until it was exhausted—evidence of man's first economy. Here the test uses terminology to describe function as well as to define four general tool classifications. Bordaz comments on archeologists' concentration on specialized tools and their ignoring or overlooking flakes as possible tools.

The chapter on "Blade Tools" concentrates on blade industries and the multiple modified blade derivations. General technology and terminology are discussed, providing a quick reference to the various blade tool types. Drawings depict the sequence of blade removal from the core, showing both the single and double ridged blade techniques. There is an explanation and description of pressure flaking and the advancement of stone tool technology and the appearance of microliths and bladelets in the Upper Paleolithic and during the Magdalenian period following the Solutrean.

In the chapter on "Microliths and Ground Stone Tools" Bordaz explains the period of drastic adjustment taking place during the Mesolithic—the environmental changes and developments in stone technology. He points out that man inserted geometric blade sections in antler, bone, or wood to make composite tools, and used parallel pressure flaking as well as pecking and grinding. Also described and illustrated are the hafting techniques for adzes and axes. Eventually the bow and arrow became man's principal weapon until the invention of the flintlock gun.

This book is an important contribution to lithic technology covering many of the major tool types of prehistoric man and explaining the development of stone tool technology. Many Old World sites are listed and, in turn, related to the techniques. A volume of information is compressed into six chapters and referenced by an extensive bibliography. Unfortunately, the drawings do not depict the methods of applying force but, rather, the arrows indicate the orientation of the flake scar to the artifact.

Archaeology as Anthropology: A Case Study. WILLIAM A. LONGACRE. Tucson: University of Arizona Press, 1970. vi + 57 pp., charts, illustrations, maps, tables, references. $4.00 (paper).

Reviewed by J. O. BREW Harvard University

This paper is important in the rapidly increasing preoccupation of American archeologists with the basic theories of their discipline. It begins with a statement of self-evident fact. "There has been increasing concern during the past several decades over the relatively few contributions that archeology has made to general anthropological theory." This is true, although it does not mean that our archeological forebears were stupid, that they worked without principles, or that they operated without conceptual frameworks. Who was it, perhaps Clyde Kluckhohn, who said that archeologists "practiced theory without knowing it"? Longacre and many current American archeologists (including Binford, Flannery, Kushner, Bayard, Deetz, Dunnell, Hill, and a highly encouraging, growing list of others) do know it. They are not only trying to do something about it, but are generously presenting their thoughts and techniques for all to analyze, criticize, and perhaps gain fruitful knowledge from.

To some scholars, cautious and conservative, this has seemed and still seems to be treading on dangerous ground. Those who wish merely to present the results of their excavations, their ceramic taxonomies, etc., leaving attempts at understanding the cultural processes operating in prehistoric times and the behavior and organization of ancient societies to others are privileged so to do. I disagree completely with the recently published editorial policy of American Antiquity that "major articles should not be primarily descriptive in character." We can use these "descriptive" articles and monographs and sorely need them still, in all archeological fields. They provide the basic data our more imaginative characters draw on. This paper is an excellent example of how basic descriptive data can be used.

Recently a manuscript from another field has come to my hand. Richard Meadow, writing on the prehistory and early history