Review: [untitled]
Author(s): George L. Cowgill
Reviewed work(s):
Quantitative Research in Archaeology: Progress and Prospects by Mark S. Aldenderfer
Published by: Blackwell Publishing on behalf of the American Anthropological Association
Stable URL: http://www.jstor.org/stable/680847

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at http://www.jstor.org/page/info/about/policies/terms.jsp. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at http://www.jstor.org/action/showPublisher?publisherCode=black.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.
This book is instructive about the current state of archeology with respect to both of these uses for formal methods. The general mood is critical. Since the contributors include a sizable proportion of the leading archeological practitioners of these approaches, this is criticism from within rather than sniping by those hostile to the approach from the outset. Recurrent themes include a sober assessment of exaggerated hopes and claims of the 1960s and criticisms of results that are inconclusive or highly suspect because of problematic auxiliary assumptions, weak data bases, underdeveloped or dubious "middle range" theory, and/or specific techniques or general models that don't accord well with data or research questions.

I agree with the contributors' assessment of our current problems. However, we need to move beyond this healthy self-criticism, and most of our energy should now be devoted to more creative responses to the problems that challenge us.

The contributors in fact offer many responses. For example, Whallon is down to earth about the value of very simple displays and the perils of trying to skip over these homely procedures. Kintigh points out that while humans are very good (sometimes too good) at pattern recognition, our intuitions about probabilities are often quite wide of the mark and need the aid of formal techniques. Nance has a fine discussion of the difference between reliability and validity, and shows some useful techniques for measuring reliability. Doran reports artificial intelligence work in progress: intriguing, but not much yet by way of specific results. Clark urges the value of creativity, but there are no recipes for it, and he feels that without a strong paradigm great creative leaps are unlikely.

Inevitably, the book is uneven. Most chapters are interesting, but a few strike me as too abstruse to be very helpful, and a few would have been improved by more stringent editing.


George L. Cowgill
Brandeis University

Formal and quantitative methods offer powerful ways to improve research design, to tease out aspects of data most relevant for theory, and to improve our reasoning about connections between data and theory. Knowledge about such methods and skills in their application can immensely aid archeology, but most of us profit much less from them than we might.

In addition, formal idioms promise more trenchant and enlightening ways to express social theory itself. That is, it can perhaps be improved if parts are cast in mathematical or quasi-mathematical terms. So far, however, few of the social sciences have made much headway in realizing this promise.


Thomas R. Hester
University of Texas, Austin

Over the past dozen years, there have been numerous studies of the ancient chipped stone tools of the Maya Lowlands. Addressed in these publications have been such issues as