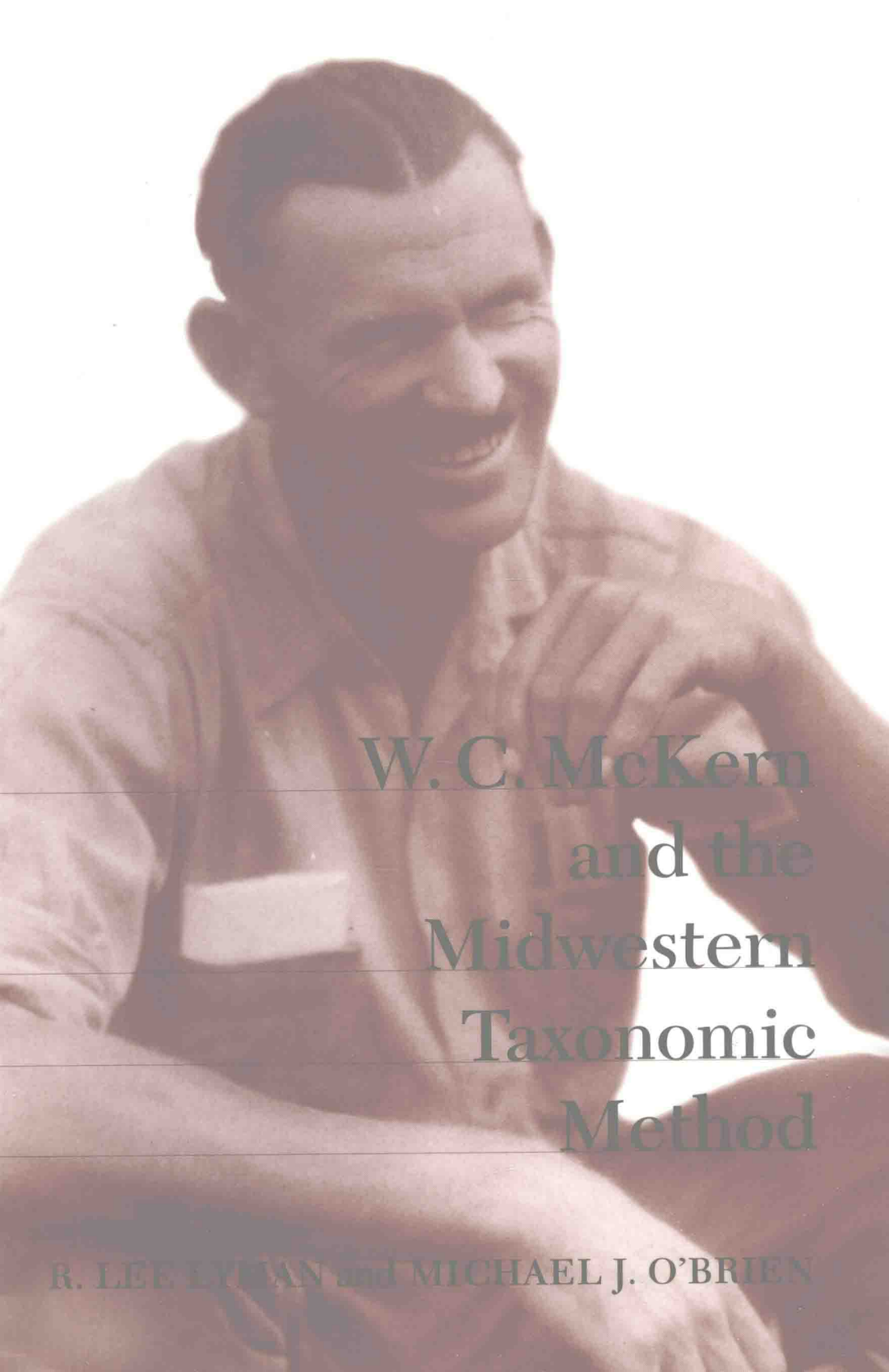

W. C. McKern and the Midwestern Taxonomic Method

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Preface and Acknowledgments

Beginning late in the nineteenth century, archaeologists in North America found increasing evidence of a diversity of prehistoric cultures. Given their anthropological training and exposure to ethnological theory and ethnographic data, it is not surprising that many of the archaeological collections they generated and studied after the turn of the century were called "culture X" or characterized as representing the "W culture." There were no standards or algorithms for specifying when one had a culture distinct from or identical to someone else's culture in an adjoining or distant region. As a result, by the late 1920s there was a plethora of prehistoric cultures that displayed disparate geographic and chronological distributions. Given the rapid growth in terminology that accompanied the discovery of these cultures, it is not surprising that someone would eventually raise a red flag because he was getting lost in the classificatory confusion.

That someone was Will Carleton McKern of the Milwaukee Public Museum, who in 1929 began to work on what he thought might comprise a solution to the problem. It became known as the midwestern taxonomic method (MTM). At the suggestion of one of his assistants McKern chose a particular model for his solution: Linnaean biological taxonomy. He chose that model because he wanted the ability to monitor relationships, particularly historical and cultural relationships, among the various identified archaeological cultures. His reasoning was simple: Because the Linnaean taxonomy implied historic and genetic relationships among biological taxa, a cultural taxonomy no doubt would reveal similar sorts of relationships among cultures. As simple as this reasoning was, it belied the rough waters that lay ahead as McKern and his colleagues tried to put the method into practice. After several fits and starts they abandoned it in favor of a method based more on intuition than on methodological rigor.

McKern was the chief architect of the MTM, but he did not work

alone—a point overlooked for the most part in previous essays on the MTM. In particular, Carl E. Guthe of the University of Michigan was not only a major source of good ideas; in his role as chairman of the Committee on State Archaeological Surveys of the National Research Council, he ensured that various of the early statements on the method were distributed to a wide audience for comment. Thorne Deuel of the University of Chicago helped McKern and Guthe write one of the early statements, and he applied a version of the method in his dissertation. Deuel also wrote two significant but previously unpublished papers on the method. James B. Griffin and William A. Ritchie also made notable contributions to the development of the method—the former attempting an early application of it, the latter proposing some critical terminology that became a significant part of the final published version. These and other aspects of the history of the development and use of the MTM have not received the attention they deserve. One result has been that when modern archaeologists comment on the method, they often discuss how people other than McKern applied it rather than on how the method itself was intended to be used. In addition, previous commentators on the MTM, ourselves included, have variously suggested that the method is analogous to one of three rather particular methods of biological classification. Such claims, however, have been made with little attendant analysis of either the pertinent literature on biological systematics or the relevant archaeological literature.

It is our goal in this volume to fill these voids, but more than that we want to show that many of the thought processes that McKern and his colleagues went through were parallel to, and in some ways anticipated, the thought processes that biologists and paleontologists went through in the decades following the evolutionary synthesis of the early 1940s. The ontological and epistemological issues with which McKern, Guthe, and Deuel wrestled are not unique to archaeology but underlie any attempt to classify segments of the natural world. McKern and his colleagues were apparently not aware of the debates in biology and paleontology, but the method they eventually proposed was remarkably similar to one that would cause a stir in biology when it was introduced in the late 1950s. That method was phenetics, sometimes referred to as numerical taxonomy. Pheneticists might have been interested in knowing that a handful of archaeologists several decades earlier had wrestled with such issues as identifying characters and character states and attempting to understand how various characters were linked. The method used by that small group of archaeologists was nowhere near as sophisticated as that developed by the pheneticists, but the basic approach was the same: Use any and all available

characters to determine relationships among taxa, irrespective of the origin of those characters.

Perhaps not coincidentally, both methods ultimately fell into disuse for the same reasons: They left time, and by implication genealogy, out of the equation. And if anything unites archaeology and biology it is an emphasis on chronological and genealogical ordering. Any classification that does not place primary emphasis on those two facets of the organic world is bound to fail. That, perhaps, is the take-home message of our look at the MTM. Its architects had the best of intentions when they started out in the early 1930s, but within a few years even they jettisoned it in favor of a culture classification built around time. In biology, phenetics had its moment in the sun, but it, too, fell prey to other classificatory methods that were based at least in part on genealogical ordering. Time simply plays too important a role in our attempts to understand both culture and organisms for it to be left out of the game.

Our archival research was aided by a number of people and institutions. Jay Satterfield of the University of Chicago's Regenstein Library, Special Collections, provided access to the papers and correspondence of Fay-Cooper Cole. Pat Burg of the Illinois State Museum provided access to the papers and correspondence of Thorne Deuel. Daniel Barbiero of the National Research Council arranged for us to use the archives of the Committee on State Archaeological Surveys. Dan Glover sorted through the papers of W. C. McKern archived at the Milwaukee Public Museum. Interlibrary Loan personnel of the University of Missouri-Columbia's Ellis Library were most helpful in obtaining several critical documents. Lyman thanks his relatives (Jay, Karen, Gracie, Thomas, and Claire) and friends (Jim and Sue Scott) for their hospitality when the book was nearing completion but still lacked certain critical bits of information.

We thank Dan Glover for producing the line drawings and Robert D. Leonard, Charles McNutt, and E. J. O'Brien for reading the manuscript in its entirety and providing numerous comments on how to improve it.

Permission to publish the archived materials was provided by Bruce McMillan (Illinois State Museum), Patricia Zimmerman (Illinois State Academy of Science), Alex Barber and Susan Otto (Milwaukee Public Museum), Daniel Barbiero (National Research Council), the Delaware Archaeological Society, the American Anthropological Association, and the Society for American Archaeology.

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Introduction

> [T]here is no better method for scientists of one period to bring to light their own unconscious, or at least undiscussed, presuppositions (which may insidiously undermine all their work) than to study their own subject in a different period. (A. J. Cain 1958:144)

Early last century Franz Boas (1902:1) indicated that "in the study of American archaeology we are compelled to apply methods somewhat different from those used in the archaeology of the Old World." Although he was not clear about *why* this was so, part of the reason appears to have been that the then generally accepted time depth of the American archaeological record was much shallower than that of the Old World. By the middle of the nineteenth century, European paleontologists had found archaeological evidence that humans had walked the earth alongside large mammals that even then were known to have become extinct at the end of the Pleistocene (Grayson 1983; Van Riper 1993). No such evidence was then available for the Americas, and the only well-understood and generally accepted evidence of prehistoric people in the New World pointed to a human occupancy that was only a few thousand years old (Meltzer 1983, 1985; Stewart 1949). That would change in the 1920s and 1930s with the discovery of human tools in association with extinct bison and mammoth at several localities in eastern New Mexico (Meltzer 1983, 1985, 1991).

The problem that arose after the New Mexico discoveries was identified by A. V. Kidder (1936a) as one of filling in the cultural gap between late Pleistocene archaeological materials and late prehistoric materials. The problem was in how best to classify the myriad archaeological cultures that lay in that large tract of time. Kidder addressed this problem in the Southwest by founding the annual Pecos Conference (Kidder 1927), at

which chronological issues could be debated. The early conferences resulted in a proposed chronological sequence of cultural manifestations for that region, but the sequence was limited in geographic extent. No such framework existed for the Southeast or Midwest, two regions that were beginning to witness more and more attention from professional and avocational archaeologists (O'Brien and Lyman 1999a, 2001).

Will Carleton McKern of the Milwaukee Public Museum addressed this issue in the early 1930s, producing what eventually became known as the midwestern taxonomic method (MTM). As we document in later chapters, the method attracted considerable attention throughout the 1930s as archaeologists, primarily those working in the Midwest, worked to refine the method to suit their needs. No one was ever completely satisfied with it, and few other than McKern really understood how it operated. Unlike the southwestern classification, the MTM explicitly excluded time from consideration, and it was this feature that contributed to its demise. Perhaps because of its short life span, roughly from 1932 to 1940, the MTM has been treated as little more than a historical curiosity in recent textbooks (Fagan 1997). Or, as is more common, it is not mentioned at all (for example, Sharer and Ashmore 1993; Thomas 1998). We have a different take on the matter. In our opinion, what McKern attempted to do with the MTM has important lessons for all archaeologists. McKern and his colleagues wrestled with many of the same issues facing archaeologists today. One of these is how to classify archaeological remains in order to analyze them. Archaeologists are not the only natural scientists who classify the phenomena they study, and McKern borrowed a biological model of classification as the template for the MTM.

This volume is divided into two parts. Part 1 contains six chapters that explore select aspects of the MTM. The remainder of chapter 1 presents a brief biography of McKern. Chapter 2 examines the epistemology and ontology of taxonomic classification and describes biological taxonomy. Chapters 3 and 4 examine the historical development of the MTM based on published information and extensive correspondence between McKern and his collaborators. During the 1930s and 1940s, several archaeologists attempted to apply the method in their geographic areas of concern, and they often published comments on the method, prompting responses from McKern. Various applications and statements are discussed in chapter 5. In chapter 6 we place the MTM within the context of broader classification systems that attempt to order the natural world.

In part 2 we reprint the several versions of the MTM penned in the 1930s and also several published addenda and comments and unpublished discussions of the method. There is much to be gleaned from reading

these statements, and throughout part 1 we make extensive reference to them. We use several conventions in the following text. Papers that are reprinted in part 2 are signified by a chapter number in brackets within a standard citation (for example, McKern 1932[7]). Throughout part 1 we use "MPM" to denote the archives of the Milwaukee Public Museum; "NRC" to denote the archives of the National Research Council, Washington, D.C.; "ISM" to denote the archives of the Illinois State Museum, Springfield; and "UC" to denote the Special Collections, Regenstein Library, University of Chicago.

W. C. MCKERN

There is no obituary for McKern in *American Antiquity*, the leading archaeological journal in the United States. Instead, a short notice appeared in the March 1989 issue of the *Bulletin of the Society for American Archaeology*. It read simply:

> Society Founder Dies
> At the age of 96, Will Carleton McKern, one of the founders of the Society for American Archaeology, died in Waukesha, Wisconsin on November 20, 1988. He was the first editor of *American Antiquity* from 1935 to 1939, and President of the Society in 1940. Until his death he was Emeritus Director of the Milwaukee Public Museum.

A bit longer obituary was published in the American Anthropological Association's *Anthropology Newsletter* in January 1989 (Anonymous 1989), and McKern's colleague Alton Fisher (1988) published an even longer one in *The Wisconsin Archeologist*, a journal in which McKern regularly published in the 1930s and 1940s and for which he served as editor in 1931–32 (Overstreet 1999).

McKern (figures 1.1 and 1.2) was born in Medicine Lake, Washington, on July 6, 1892. He seldom used his full name, preferring to be identified as W. C. McKern professionally and to be addressed as "Mac" by his friends. He earned a B.A. in anthropology under A. L. Kroeber at the University of California, Berkeley, in 1917. He received a fellowship to support his studies of California Indians but was inducted into the military and sent to France in 1918. After serving in World War I, McKern married Clara Florence on October 22, 1919. He taught anthropology at the University of Washington in 1919 and conducted ethnographic (McKern 1922, 1923, 1924) and archaeological (McKern 1929) research on the island of Tonga in Polynesia as part of the Dominick Expedition of

Figure 1.1. Will Carleton McKern, 1939. Courtesy of Milwaukee Public Museum (negative number 423187).

the Bernice P. Bishop Museum in Honolulu from 1920 to 1922. He then served as an assistant archaeologist for the Bureau of American Ethnology from 1922 to 1924, working with J. Walter Fewkes at Mesa Verde in southwestern Colorado (Basile 2000; Fisher 1988).

McKern became head of the anthropology department of the Milwaukee Public Museum on January 1, 1925, and held that position until November 27, 1943, at which time he became director of the museum. He was awarded the Wisconsin Archeological Society's Lapham Research Medal in 1930 (Overstreet 1999) and served as president of the American Anthropological Association in 1933 and as president of the Society for American Archaeology in 1940–41. McKern received an honorary doctorate from Marquette University in 1956 "in recognition of his many contributions to anthropology, Wisconsin, and the City of Milwaukee"