THE CAMBRIDGE HISTORY OF THE NATIVE PEOPLES OF THE AMERICAS

VOLUME II

MESOAMERICA

PART 1

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CAMBRIDGE UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK http://www.cup.cam.ac.uk
40 West 20th Street, New York, NY 10011-4211, USA http://www.cup.org
10 Stamford Road, Oakleigh, Melbourne 3166, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain

First published 2000

Printed in the United States of America

Typeface Adobe Garamond 11/13 pt. *System* DeskTopPro$_{/UX}$® [BV]

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication Data
Mesoamerica / edited by Richard E. W. Adams, Murdo J. Macleod
p. cm. – (Cambridge history of the Native peoples of the Americas)
Includes bibliographical references and index.
ISBN 0 521 35165 0
1. Indians of Mesoamerica–History.
I. Adams, Richard E. W. II. Macleod, Murdo J. III. Series.
E77.N62 2000
970.004'97–dc20 95-46096
CIP

Volume I: North America ISBN 0-521-34440-9 hardback complete set
Volume I: North America, Part 1 ISBN 0-521-57392-0
Volume I: North America, Part 2 ISBN 0-521-57393-9
Volume II: Mesoamerica ISBN 0-521-65205-7 hardback complete set
Volume II: Mesoamerica, Part 1 ISBN 0-521-35165-0
Volume II: Mesoamerica, Part 2 ISBN 0-521-65204-9
Volume III: South America ISBN 0-521-33393-8 hardback complete set
Volume III: South America, Part 1 ISBN 0-521-63075-4
Volume III: South America, Part 2 ISBN 0-521-63076-2

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1

INTRODUCTION TO A SURVEY OF THE NATIVE PREHISTORIC CULTURES OF MESOAMERICA

RICHARD E. W. ADAMS

This section both introduces the chapters of my colleagues that follow and is an attempt to outline the intellectual context within which the work and thought have been accomplished. A short historical background is also provided as well as a description of the basic theoretical underpinnings of American archaeology.

THE FUNDAMENTAL INTELLECTUAL STRUCTURES OF MESOAMERICAN FIELD ARCHAEOLOGY

The basic theoretical structure of American archaeology is derived from its association with anthropology as well as parts derived from Western scholarly and traditions in general. Briefly, anthropology (and therefore archaeology) argues that most human behavior is patterned and that the patterns are culturally determined. Furthermore, any given culture is made up of such patterned behavior, functionally integrated, and driven by a core of beliefs about the nature of the universe and humanity's place in it. These disciplinary premises have been distilled from the study of hundreds of cultures, mainly non-Western, over the past 150 years, although Herodotus (c. 425 B.C.) is often claimed as an early anthropologist. All cultural patterns, such as differentiated social status, have material correlates, as witness differential housing. For archaeologists, the important part of this premise is that the material remains of any culture therefore have some relation to the formerly operative nonmaterial behaviors. For example, ancestor veneration among the Maya drove them

I am deeply indebted to Harry Shafer, Thomas Hester, Jeffrey Quilter, and Laura J. Levi for commentary on this introductory chapter. While I did not take all of their advice, I carefully considered it, and any errors, therefore, are doubly my own.

to create shrines and temples, large and small, which are now found in ruins across the landscape. Analytically, the anthropologist and archaeologist both may artificially break cultures down into component parts called *cultural institutions.* The use of cultural institutions is not the only means of analysis, but it is a particularly useful concept for archaeology because of the direct logical linkage between institutions and their material remains. Thus ancient irrigation canals reflect not just a farming technique but a segment of a former economic system. Examples of both cultural institutions and their material correlates are provided in Tables 1.1 and 1.2. Research methods that generate the data are listed in Table 1.3. A final point is that archaeology depends greatly on analogy to ethnographic or historical cultures in order to interpret material remains. A mild dispute exists between those who argue that only the sixteenth-century Mesoamerican cultures are appropriate analogies and those who cast their nets wider and include parallels from other historical or prehistoric civilizations.

Scholarly tradition in Western civilization has evolved so that it is commonly practiced in three distinct stages. The first is the gathering of information (fieldwork), then the elicitation of patterns from it (analysis), and finally the attempted explanation of those patterns (theory). It should also be observed, as it was by Sir John Eccles, "that all of science is based on a metaphysical assumption: There is a lawful order to the universe" (Michael Warder, *WSJ* 19Apr96). This is the most fundamental of the premises of Western science and modern scholarship. Warder also observes that "metaphysical beliefs cannot, by definition, be disproven by the scientific method" (op. cit). Finally, explanation (theory) is derived from patterns in the data through the use of analogy or of greater perception. Analogical theory is epitomized by systems theory, and greater perception by cultural ecology, for example. Systems theory largely depends on the demonstrable or arguable linkages among the active parts of a cultural institution. Greater perception is dependent to some degree on personal experience. It is bemusing to note the amazement of scholars whose lives have largely been spent in urban areas when they write of agricultural systems and their linkages to the natural environment. Cultural ecology makes these linkages explicit in both static and dynamic forms.

Cultural institutions exist(ed) within ecological and biological contexts, the major categories of which seem to be:

Table 1.1. *Major cultural institutions universal to human cultures (not exhaustive)*

Cultural institutions	Subcategories
1. Kinship	residential rules terminological categories descent and inheritance rules ranking principles, etc.
2. Non-kin groups (associations, sodalities, etc.)	warrior societies religious sodalities occupational guilds (flint-knappers, scribe-artists?) tribal secret fraternities, etc.
3. Social structure	principles of ranking within society; ascribed and achieved status rank, class, or caste societies economic factors in social ranking occupational specializations, etc.
4. Economics	food production craft production internal exchange and distribution external trade tribute systems and taxation, etc.
5. Politics	allocation of power relative to social structure and kinship units centralization versus diffusion of power; differences among regional states bureaucracy geographical units; hierarchical organization regional state and city-state models tribute systems, conquest states, etc.
6. Ideology	formal religion folk religion magic and witchcraft world view political ideology regional and temporal variation, etc.
7. Warfare	military organization weapons systems fortifications strategy and tactics, etc.
8. Settlement patterns	urban networks settlement hierarchies rural fabric major landscape modification (wetland drainage, terracing, leveling, paving, wall networks, roadnets, dams, reservoirs, etc.)
9. Technology	argicultural crafts (weaving, pottery, woodwork, feather working, etc.) construction (quarrying, masonry, mortar, stucco, plaster preparation [factor in deforestation]), engineering, architecture (heavy transport), etc.
10. Intellectual developments, communicative systems, and administrative and educational tools	writing mathematics astronomy art and iconography, etc.

Table 1.2. *Material correlates to cultural institutions (not exhaustive)*

Material remains	Analytical results	Cultural institutions
Trash deposits	discard patterns; artifacts	social structure, trade patterns, etc.
Artifacts (pottery, stone tools, jewelry, etc.)	taxonomic categories	technological development, trade patterns, craft specializations, etc.
Architecture	functional categories; e.g., formal and informal buildings, ritual, residential, administrative, military, and burial structures	social, religious, political, demographic, kinship, and other institutions
General construction	functional categories: agricultural, site preparation, hydraulic, etc.	technology, economic, political, and demographic institutions
Burials	classification ranges (interments to tombs); content analysis	social, religious, economic, kinship, and other institutions

1. Climate and climatic cycles
2. Human demography, and its fluctuations
3. Health and disease parameters
4. Topographic and ecological characteristics: soils, drainage, minerals, and so forth
5. Major landscape modification
6. Plant and animal inventories.

The interactions of these elements of the natural world with those of the cultural world constitute what has been called *cultural ecology*. Processualism, particularly espoused by the "New Archaeology," attempts to explain cultural change and creation not only in terms of this interaction but also by the interactions of cultural institutions among and within themselves.

Beyond these postulated factors are what I term *secondary theoretical structures*, such as those purporting to explain the origins of state-level political organizations or particular events of culture history. However, these derive either from the basic theoretical foundation or from the rapidly changing mass of data.

To be sure, the fundamental theoretical structure of (especially Americanist) archaeology has been under attack by scholars who have estab-

Table 1.3. *Correlation of cultural institutions with field and other research methods of archaeology (not exhaustive)*

Cultural institutions	Field and laboratory research methods
1. Kinship	settlement pattern studies burials and tombs ceramic motif studies, etc.
2. Non-kin groups	architectural studies script (epigraphy) artifact studies, etc.
3. Social structure	settlement pattern studies functional analyses of buildings burials and tombs artifact studies studies of complex art, etc.
4. Economics	agronomy studies (soil analyses, hydrology, palynology) studies of major landscape modifications remote sensing of landscape artifact analyses special studies such as trace element analyses of obsidian, etc.
5. Politics	rank-size, rank-order analyses of urban (or community) networks epigraphy iconography architectural stylistic study internal analysis of community patterns, etc.
6. Ideology	epigraphy iconography burials study of ritual centers, etc.
7. Warfare	mapping remote sensing of landscape study of fortifications artifact analyses, etc.
8. Settlement patterns	mapping of sites and regions remote sensing mapping artifact studies rank-size, rank-order studies functional analyses of urban, town, village, hamlet, farmstead and other unit examples selective excavation of units from settlement hierarchy, etc.
9. Technology	artifact studies experimentation and replication study of manufacture zones, etc.
10. Intellectual structures, etc.	epigraphy iconography burials artifact studies archaeoastronomy, etc.

lished something that they call *postprocessualism* (e.g., Hodder 1985). The adherents of this point of view argue, in essence, that much of the past is unknowable in its own terms and that many of our interpretations of prehistory are based only on our current perceptions of the world. Context and particularism are the only convincing interpretative bases for archaeological inference, and material culture reconstruction is the soundest of these inferential operations. This semiexistential movement has largely been espoused by armchair archaeologists and those from outside the anthropological tradition. In the end, it is no more than another variety of philosophical nihilism and as such has been rejected by most if not all field archaeologists working in Mesoamerica and most investigators working in the New World.

A DEFINITION OF MESOAMERICA

Archaeology has three basic elements, as G. R. Willey has often pointed out. These are time, space, and data (content). Chronological organization of the information on ancient prehistoric cultures in the geographic space defined as Mesoamerica (Map 1.1) is a good example of the use of these components.

Mesoamerica has been defined as a "co-tradition" or culturally interactive area. The culture-area concept of Mesoamerica was first developed by Walter Lehmann in the 1920s and then reformulated by Krickeberg (1943). Both scholars largely defined the area as one in which complex cultures had existed in sixteenth-century sources. Characteristics were mainly derived from early historical sources. This resulted in something of a hodgepodge of both important and trivial elements, with some of both kinds being highly regional. For example, human sacrifice, a broadly distributed trait linked to a basic religious tenet, and the *volador* dance ceremony (restricted in distribution) were both on the original list. Willey, Ekholm, and Millon (all archaeologists) reworked the concept in 1964 and made it operational for prehistoric research. I quote from my adjusted summary of their revision, as published elsewhere:

> Basic agricultural technologies tended to be extensive in the tropical lowlands and intensive in the highlands. This distinction blurred in periods of high populations, when intensive agriculture was practiced in both sorts of zones. Regional crop lists always included varieties of corn (maize), squashes, and beans, but varied wildly in regional plants such as cacao, avocados, tropical fruits, and many sorts of vegetables. Settlement patterns tended to conform to these differ-

ing subsistence systems – dispersed in the lowlands and nucleated in the highlands. [This distinction is a matter of degree, however.]

Stone Age technologies were common to all Mesoamerican cultures. New World cultures lacked the wheel, possessed few useful domesticated animals, and did not use the true arch. Metal was not ordinarily used for utilitarian purposes. Movement of goods and people was largely by canoe or by foot.

Organization of society and economy centered on the agricultural village. Aristocratic leadership controlled all affairs of import through civil servants. Merchants, warriors, and artisans formed special social classes ranking above the main class of farmer-laborers. Temple centers in both highlands and lowlands functioned as headquarters for the elite and bureaucratic classes, both initially and later when the centers had been transformed into varieties of urban communities. Market systems were integrated with the various population centers and furnished the sinews binding together the symbiotic regions. The dispersed and nucleated towns, cities, and metropolises all were built of stone, plaster, and mortar. A variety of architectonic forms were expressed in these materials, and they were decorated with art styles which were intimately connected with the elite classes. Other manifestations of hieratic art appeared in elaborate pottery, murals, sculpture, and jewelry. After the establishment of state-level organizations, the city-state was the basic and stable unit, combinations of which made up the larger political structures of kingdom and empire.

Intellectually, there were certain cross-cutting philosophical and religious principles. One set was bound up with the fatalistic cosmologies of the Mesoamericans. [Humanity] lived in a hostile world with capricious gods. Mathematics, hieroglyphic writing systems, astronomy, and calendrical systems were all tied to these philosophical tenets. Two ritual games were widely played, the [rubber] ball game and [*patolli*, a board game. The ball game still survives] in isolated regions.

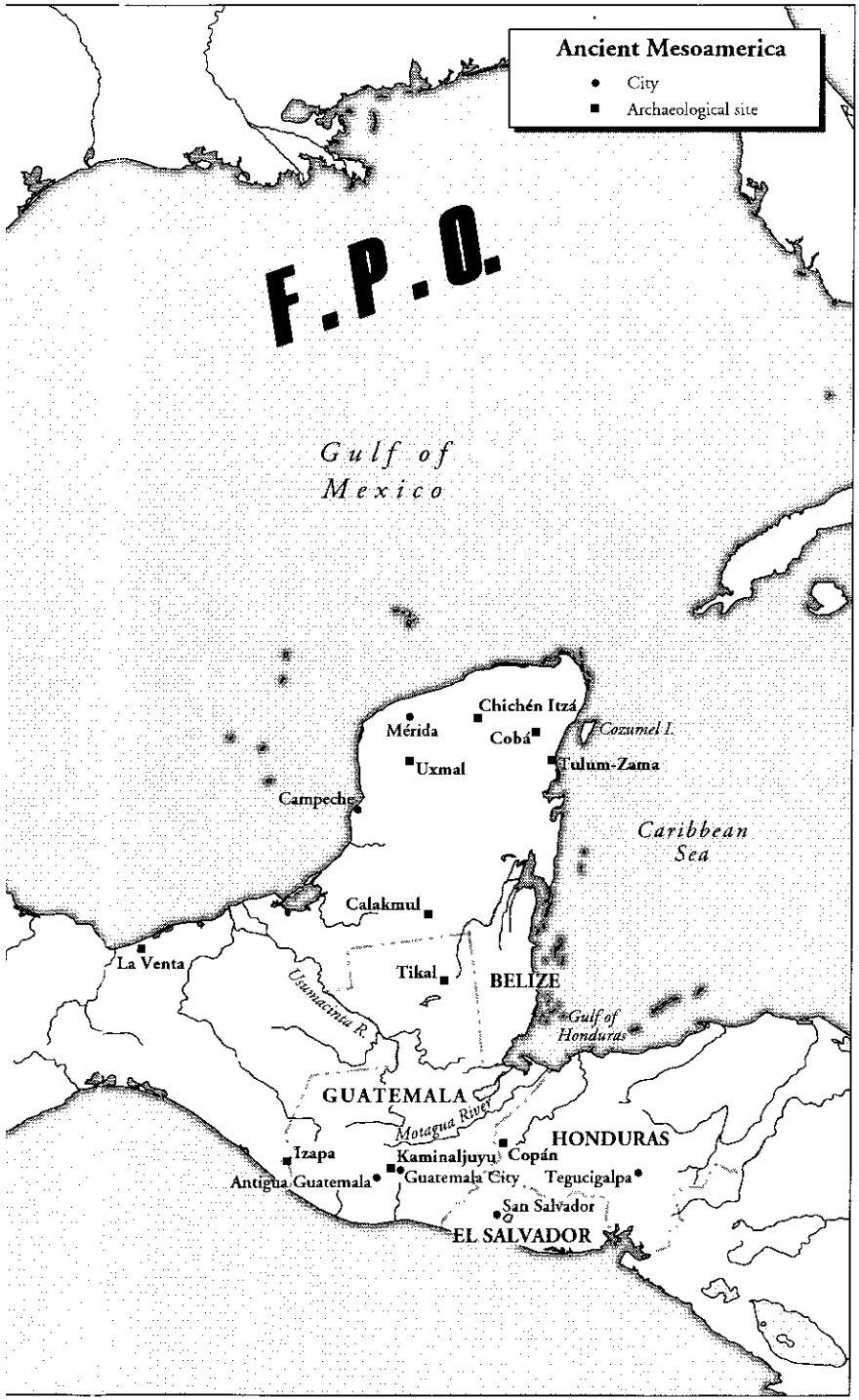
Regional diversities existed within these and other characteristics which bound Mesoamerica together. Willey has characterized Mesoamerica as a vast diffusion sphere. That is to say, whatever happened of importance in one area sooner or later had some effect on most of the other areas. (Adams 1991: 19–20)

The geographical extent of Mesoamerica includes roughly two-thirds of present-day Mexico, all of Guatemala and Belize, a thin western segment of Honduras, and probably four-fifths of El Salvador. In all, it covers about 1,015,300 square kilometers, or 392,000 square miles (see Map 1.1).

Stage-development presentation has theoretical implications of its own. These are that in each stage, often a very long period of time, there were characteristic features common to all societies. These commonalities crossed all cultural institutions, although economic development as an infrastructure for further cultural elaboration has often been given priority. Much of the terminology has lost most of its evolutionary implica-


F.P.O.
OPENER MAP
Río Grande (Bravo)
WESTERN SIERRA MADRE
Sinaloa River
MEXICO
Soto la Marina River
EASTERN SIERRA MADRE
Panuco River
León
Guanajuato
Querétaro
Tula
Teotihuacan
Mexico-Tenochtitlan
Cempoala
Tlaxcala
Veracruz
Puebla
Cholula
Tzintzuntzan
Balsas R.
Oaxaca
Monte Albán
Mitla
Acapulco
PACIFIC OCEAN
N
0
300 mi
0
300 km

Map 1.1


Ancient Mesoamerica
City
Archaeological site
F.P.O.
Gulf of Mexico
Chichén Itzá
Mérida
Cobá
Cozumel I.
Uxmal
Tulum-Zama
Campeche
Caribbean Sea
Calakmul
La Venta
Tikal
BELIZE
Usumacinta R.
Gulf of Honduras
GUATEMALA
Motagua River
HONDURAS
Izapa
Kaminaljuyu
Copán
Antigua Guatemala
Guatemala City
Tegucigalpa
San Salvador
EL SALVADOR

tions, however, and now is best regarded as representing large blocks of time. Thus Willey, Ekholm, and Millon, (1964) used the Lithic, Preclassic, Classic, and Postclassic stages to organize their synthesis. However, I have made several modifications to that evolutionary terminology to conform with that used by various authors in the chapters that follow. First, the Lithic stage has been renamed the Paleoindian. Second, the now commonly used term *Archaic* has been adopted. Third, the term *Formative* has come to be used interchangeably with Preclassic.

Paleoindian (35,000?/10,000–7000 B.C.)

The earliest certain settlers in Mesoamerica now seem to date about 10,000 B.C., but possibly people were there as early as 40,000 years ago. Upper Paleolithic hunting and gathering bands appear to have sporadically crossed through the land bridge (Beringia) between northeastern Siberia and present-day Alaska over several hundred years. At the moment, it appears that the initial entry was not later than 15,000 B.C. Material from the Southern Cone of South America dates the earliest presence of humans there at about 12,000 B.C. or slightly earlier (Meltzer et al. 1997). New finds in the Amazon date to about 9200 B.C. (Roosevelt et al. 1996). Ice age climates, Pleistocene animals and plants, and other features such as lower ocean levels formed the context within which these earliest colonists lived. Radically distinct varieties of stone tool kits were developed and adapted to New World conditions.

Archaic (8/7000–1500 B.C.)

Apparently under the pressures of climatic change, drastic loss of animal populations, and other factors, transitions from hunting and gathering took place during this stage. Domestication of many plants and a few animals began at least by 7000 B.C. and perhaps by 8000 B.C. Nonagricultural villages were established about 5000 B.C., while others used a mixture of old extractive techniques combined with new food-producing methods. Agricultural villages were established all over Mesoamerica by 1500 B.C. A general increase in the number of people diminished opportunities to expand through space and eventually led to regional differences.

Preclassic (1500 B.C.–A.D. 150)

Cultural elaboration leading to complex cultures took place over the next 1,650 years. The Gulf Coast culture called the *Olmec* seems to have been the earliest to reach a state of development that we can define as civilization about 1350 B.C. and appears astonishingly early in the period, although there are now possible predecessors on the Pacific Coast. A number of other precocious Formative cultures in the central highlands were in existence and interacted with the Olmec. Beginning about 600 B.C., various large regional centers with major buildings appeared in many zones. Many of these became the focal points for complex cultures between 600 B.C. and A.D. 150. By the latter date, most of the features defining Mesoamerica and that distinguish it from North and Central American cultural areas were in place.

Classic (A.D. 150/300–650/900)

The development of elaborate cultural institutions appears to have been directly spurred by social and ideological factors. Indirectly, population growth was also a dynamic element. The starting and ending dates are strictly dependent on the area with which one deals. Classic cultures were in every sense the second florescence of Mesoamerican civilization and built upon the previous successes of Preclassic civilizations. The first large-scale, economic and political systems were developed, which bound together several regions.

Early Postclassic (A.D. 650/900–1250)

Collapse and transformation of Classic civilizations led to new regional expressions in this stage. Intense interaction between far-flung zones led to the creation of hybrid cultures, which appeared as transitional forms. Climatic changes played a role in at least accelerating the new adaptations. Tribute-seeking, predatory military states developed, which laid down patterns fully developed in the next stage.

Late Postclassic (A.D. 1250–1519)

Essentially, this was the climax stage for reformulated, regional, and larger-than-regional cultures put together in the preceding stage.

Historical and native documents as well as eyewitness accounts provide unexcelled detail for these civilizations. A number of the sixteenth-century expressions of Mesoamerican civilizations are relatively well known: the Aztec, Tarascan, Maya, Zapotec, and Mixtec.

A SHORT HISTORY OF MESOAMERICAN FIELD ARCHAEOLOGY: A SELECTIVE HISTORICAL REVIEW OF RESEARCH

I have concentrated on the years 1950 to the late 1990s for a historical survey of research, a period within which all of the scholars with chapters in this book accomplished the research that gave them the credentials to write in their chosen fields. However, I also refer to a number of earlier developments and precursor concepts. The dating of the survey is not entirely arbitrary; it is clear that the last forty-six years have seen radical changes in both research data and our understanding of it. Surveys of literature and trends in Maya archaeology made in 1969 (Adams) and 1982 (Adams and Hammond) clearly show the explosive growth not only of knowledge but also of practitioners. The obvious points are that these developments are related and are also characteristic of the general field of Mesoamerican archaeology (as seen in Blanton et al. 1981; Adams 1991; Weaver 1991). The less obvious point is that an increasing diversity of research design, field methods, interpretation, and even of publications took shape. Some references will be made to precursors in certain fields.

In the longer history of Mesoamerican archaeology three trends can be clearly seen. The first is the growing realization of the great depth of time in the area. The second is the increasing perception of the complexity of the area and of that achieved by individual cultures. These two changes in intellectual awareness are mainly substantively driven – that is, nearly a direct result of increased fieldwork and the publication of it. The third trend is the increase in the amount of and persuasiveness of explanatory (secondary theoretical) material from about 1960 onward. This is partly a response to the challenges of the changes in perception of the data but is also driven by the history of the field of archaeology as practiced by Northamericans. In Latin America, mainly regionally trained archaeologists have taken the Marxist models as premises to be assumed and have found themselves bewildered and even upset by the newer and more sophisticated constructions of their Northamerican colleagues.

However, scholarly interchange has brought about more sympathetic understanding on both sides.

The history of field archaeology in Mesoamerica is a simultaneously narrower and wider field than the usual survey of Mesoamerican studies. As Bernal notes (1980:148), the first large-scale Mesoamerican fieldwork was begun in the 1880s by Harvard's Peabody Museum at the site of Copan, Honduras. Before that time, antiquarianism had characterized the study of artifacts and the sites. The lack of discipline in excavation, especially the lack of the stratigraphic method, had hampered even the best of the fieldworkers in comprehending what they observed and in developing the sequence of events and construction at any given site. Typological studies often had been done on museum collections, including a study of the small clay figurines so common in the Basin of Mexico. However, the figurines were ordered in time by stylistic means and lacked the necessary independent confirmation. Such indispensable discipline was introduced about 1911 with the stratigraphic technique, which has since been supplemented by a great number of technical and field methods. In my view, it is no coincidence that the person probably most responsible for introducing stratigraphic excavation to New World archaeology was Franz Boas, the founder of American anthropology (Adams 1960:99). As Browman and Givens (1996:91) conclude, however, the method was probably independently introduced three times into American archaeology during a relatively short period. The intellectual development of that crucial time meant that archaeology was to be part of anthropology, and that the interactivity characteristic of the total field was also to be part of the subfield. It is also apparent that the development of stratigraphy, and the implications of the information to be gained from it, meant that field methods were not mere skills and proficiencies that were an end in themselves. The real implication was that fieldwork, done in a disciplined and imaginative manner, could produce insights and conclusions available from no other source. In short, explanation and understanding flowed from fieldwork, or at least from the information produced by fieldwork.

It is my argument that new methods of gathering information and of analyzing it ultimately are the intellectual drivers in the field of Mesoamerican studies and not secondary theories. Two examples will suffice. The reformulated and integrated theory of the Classic Maya collapse (Culbert 1973) was stimulated by the accumulation of significant amounts

of data on the topic from projects in the period 1955–70. The explanation was not the result of a breakthrough in understanding but was the consequence of new information from several sites that appeared to coincide and to suggest it might be possible to integrate the data and explanations. The breakthrough in understanding came at a conference where all the data was examined and twelve scholars contributed to the analysis and final form of explanation. The new explanation was, as always, insufficiently supported by data in certain areas; it therefore became a guide for further research during the next twenty-five years and probably will continue to influence field research for the foreseeable future.

A second example is that of the research effort in the Valley of Oaxaca and its surrounds. Considerable data had been accumulated from 1920 to 1965, principally from the work of Alfonso Caso and his colleagues. In this case, a later, small group of scholars led by Kent Flannery generated a series of research problems based on Caso's work and also on a larger theoretical scheme, the Palerm Wolf theory, which, in turn, was based on huge amounts of work already done in the Basin of Mexico (Flannery et al. 1967). Again, I argue that the available information generated by fieldwork and analysis stimulated tentative explanations and further fieldwork as well as still further explanations. Both of these examples are examined further in this introduction, but my point should be clear. Data generation leads to more sophisticated analysis and thence to more pattern perception that, finally, demands explanation and more fieldwork. Theory mistakenly has been set at the center of this scholarly operational process and, because of its glamor and the often perceived lack of need for data to sustain it, is frequently used as shortcut to facile, persuasive, and mistaken explanation. Greater intellectual weight and historical credit needs to be given analysis and field methods.

The recent and ever faster changing fashions in "theory" often have little or no effect on the nature of and the quality of the information produced. This point can be demonstrated by comparing the quality of the fieldwork, publication, and data from the work of scholars at the Carnegie Institution of Washington with that from many other projects stimulated by the hypothesis testing of the "New Archaeology." The triviality of conclusions, poverty of documentation, and smallness of sample of the latter are in often great contrast to the work accomplished by the Carnegie group. To use an analogy, a great deal of theory is too often like the surface of the ocean, tossed and agitated by every wind