Book Reviews

Mapping an Ancient City

Urbanization at Teotihuacán. Vol. 1, The Teotihuacán Map. RENÉ MILLON, Ed. University of Texas Press, Austin, 1974. Two parts. Part 1, Text. xvi, 154 pp., illus. Part 2, Maps. xvi, 148 pp. + foldout maps. \$30.

The publication of volume 1 of Urbanization at Teotihuacán, Mexico is an event of major importance for the field of anthropology. The site of Teotihuacán, located 40 kilometers northeast of Mexico City, has been known for a long time because of its monumental architecture, including the famous sun and moon pyramids. It has also been recognized for some time that the influence of Teotihuacán was extensive in prehistoric Mesoamerica. Indeed, for a while many archeologists thought that it was the capital of the Toltecs, who preceded the Aztecs as the rulers of much of Mesoamerica. That idea was dispelled some time back, however, and we now know that the site antedates the Toltecs. Its beginnings go back to the last few centuries B.C., and it flourished until its apparently violent end some time in the eighth century A.D. Yet the true extent of the site, in size and population, was still unknown when Millon and his associates began their work. Nor was the social composition of its population known. It was to tackle these and related problems that the Teotihuacán mapping project was begun in the 1960's.

The volume reviewed here consists of two parts. The first is the text, which gives the background to the mapping project, detailed description of the mapping procedure, discussion of interpretations from the map, and a summary of what the work reveals (future volumes will present further details of interpretations and overall cultural reconstructions). The second part is the map itself. This is presented in the form of 147 one-page maps, each covering a 500-meter square at a scale of

1:2000 with 1-meter contours. These present essentially raw data, but for each there is a transparent overlay that shows, in red, the architectural interpretation of the mapped features. The overlays are based on field data sheets (photographs, field drawings, sketches, which will be published in a future volume) and surface collections of shards and artifacts. To supplement the individual sheets, there is an overall map of Teotihuacán at a scale of 1:10,000 showing the 500-meter squares, with excavations shown in red, architectural interpretations (from the transparent overlays) in black, streams in blue, and contours in sepia. From this, one can get an idea of what Teotihuacán as a whole looked like about 600 A.D. Another map at 1:2000 shows the north central part of the site, in which there is much excavated detail, in the same four colors. Finally, there is a black-and-white topographical map of the whole site, which shows more vegetation than any of the others and which, in spite of some errors, gives the best overall impression of the topography.

The procedure used by Millon and his associates was to start with a photogrammetric base map covering 38 square kilometers. A ground survey was then made to define the site limit: a strip around the site at least 300 meters wide without structures or other significant evidence of occupation. Then all remains of structures or other areas showing ancient use within those limits were visited, recorded at 1:2000 on field sheets, and described on a onepage site record modeled on those used at the University of California at Berkeley. Surface collections of pottery and other artifacts were also taken. Vegetation cover was recorded, for tests showed that it affected the nature of the collections taken. When this work was 90 percent completed, small-scale explorations were begun where necessary to resolve problems of the map.

The work of Millon and his associ-

ates clearly reveals Teotihuacán to have been one of the largest cities of the ancient world. Within an overall area of 20 square kilometers buildings and other debris are abundant. In addition to the long-known monumental buildings, such as the pyramids of the sun and moon, there are extensive low mounds and room complexes. Most of these were probably residences, since kitchens have been found in some. Over 500 ceramic, obsidian, or other kinds of workshops have also been identified. A population on the order of 125,000 may have lived at Teotihuacán at its height. Detailed discussion of functional assessments, on which population estimates ultimately depend, presumably will appear in future publications. The map itself gives direct indications that central planning was important at Teotihuacán. There is adherence in all parts to the orientation of the Street of the Dead, which is between 15°25' and 15°30' east of astronomic north. Accordingly, Millon wisely chose this as the orientation for the map. The monumental buildings are at the center of the city, arranged along broad "streets" or "avenues." Many watercourses within the city were canalized.

By way of critical comment, I can express nothing but admiration for this work. Teotihuacán is the first ancient urban settlement in the Old World or the New to be subjected to such an extensive and thorough surface survey. In the case of some other sites, logistical problems have made comparable surveys impossible, but this has not always been so. In view of the interest there is these days in the evolution of urban society, it is important that other archeologists emulate Millon's example where it is possible to do so so that data more reliable than those we now have are available for comparative studies.

A strong point is that Millon has presented the raw data along with his interpretations and has done so in such a manner as to facilitate comparison. Archeologists all too often present material in such a way that the reader either has to take the archeologist's word or go out into the field and see for himself. Not only is the latter expensive and time-consuming, often it is impossible because the feature in question may no longer be observable. Thus it is refreshing to see an archeologist doing his best to make available as much uninterpreted data as he can.

Another strong point is that Millon, clearly aware of the pitfalls in the inter-

pretation of material from a surface survey, has done a good job of making explicit his procedures and assumptions with respect to both the mapping and the interpretation of what was mapped. Beyond this, he has furnished a useful summary of what the survey work seems to indicate about Teotihuacán as a functioning urban settlement. More on this, though, will come in future volumes. Through it all, Millon shows a refreshing openness of mind and respect for evidence, as opposed to facile commitment to a particular theoretical viewpoint.

In short, the Teotihuacán Map sets a high standard for archeological survey work and for archeological reporting. This is not New Archeology or Old Archeology, just Good Archeology. The map and text are indispensable for anyone seriously interested in ancient urban societies. Both the author and the publisher are to be congratulated for a job well done.

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On Cultural Theory

The Interpretation of Cultures. Selected Essays. CLIFFORD GEERTZ. Basic Books, New York, 1973. x, 470 pp. \$15.

This volume of essays represents Geertz's more important shorter writings in social and cultural anthropology. They are arranged in five parts.

Part 1, previously unpublished and entitled "Thick description: toward an interpretative theory of culture," serves as an introduction, setting forth Geertz's conception of what cultural description in ethnography is properly all about: looking at "the symbolic dimension of social action-art, religion, ideology, science, law, morality, common sense" (p. 30). The object is "not to turn from the existential dilemmas of life [but] to plunge into the midst of them . . . not to answer our deepest questions, but to make available to us answers that others . . . have given, and thus to include them in the consultative record of what man has said" (p. 30). Geertz has a well-earned reputation for his rich and perceptive descriptions and interpretations of institutions in the societies he has studied. The opening essay expresses what he perceives to be involved in giving such descriptions.

The remaining essays have all been

published before. Part 2 contains two general pieces, "The impact of the concept of culture on the concept of man" and "The growth of culture and the evolution of mind." Four essays on religion, including his influential "Religion as a cultural system," make up part 3. Part 4 consists of five essays dealing with the sociological study of ideology, especially in relation to the newly emerged states; and part 5 consists of three essays, a penetrating critique of the work of Claude Lévi-Strauss and two masterpieces, "Person, time, and conduct in Bali" and "Deep play: notes on the Balinese cockfight," that exemplify what Geertz's opening essay says ethnographic description should aim to do.

Since Geertz makes his contribution to cultural theory the *raison d'être* of the book, his view of culture invites our attention in this review.

The basic content of culture, he repeatedly says, is made up of symbols and their meanings. "Significant symbols" (a concept Geertz takes from G. H. Mead) and their meanings, being created and maintained in the course of social interaction, are public. Geertz criticizes this reviewer specifically for locating culture in people's "heads," where significant symbols would be private, presumably inaccessible to others, and hence nonsignificant. Yet the symbols and meanings comprising culture are learned through human cognitive processes, and Geertz's view of culture entails a paradox: symbols and their meanings are social and public and at the same time learned by processes that, however much stimulated socially, are intrasomatic and incapable of being observed directly. The resolution of this paradox is the crux of the problem of cultural theory. In stressing social exchanges, Geertz rivets attention on one of the relevant arenas—the one in which people manifest themselves to one another through symbolically governed behavior and make it possible for each to go to work cognitively on what the others have thus manifested. But that is where he leaves it. He seems not to see the paradox.

Culture thus remains in Geertz's analysis uncomfortably close to Durkheim's "collective representations." There is, Geertz says, a "control mechanism," which is a kind of "template" or "program," and it is public and a property of society, not of any individual (pp. 44–45). Individuals learn it, never quite perfectly, and contribute by undescribed

processes to its gradual modification, but the individuals come and go while the template, however modified, goes on. Culture thus becomes a system of Platonic ideals that exists in society as a kind of collective mind rather than in people. It is imperfectly represented in the knowledge of each individual and even more imperfectly in his behavior, as he manipulates the symbols and what he understands to be the expectations of others regarding them in the pursuit of his own particular interests. "Thick description" allows us to appreciate the art and rhetoric, the varying skill and tactical creativity, of the individual actors in their various manipulations. Through the metaphor of thick description, Geertz seeks to give conceptual form to his major interest as an ethnographer: to describe not just the "grammar" or "structure" but the "rhetoric" of life, not just the rules of the game but the many, often conflicting purposes people hope to realize by playing the game and the strategies and tactics (including cheating) by which they try to realize them.

For Geertz's purposes it has not seriously mattered that culture be left where he leaves it. For many purposes it is sufficient to treat culture as a set of ideal forms—a "template"—that informs and guides the transactions in a social network and makes those transactions meaningful not only to the participants but also to outsiders who, like anthropologists, "learn" those same ideal forms. But for a theory of culture we must return to the other part of the paradox and ask how ideal forms can come to be the property of a collectivity when, as products of human cognition, they are created by every individual out of his own sensations and hence presumably are never exactly the same from individual to individual.

Most germane to this problem is another of G. H. Mead's powerful concepts, one that Geertz does not cite, although he criticizes his fellow anthropologists for failing to take account of Mead's work. It is the concept of the "generalized other."

Social learning includes each individual's arriving at a set of cognitive discriminations and expectations (meanings) associated with them—a set of standards for discriminating and interpreting—that he attributes generally to others in order to predict and interpret their behavior. These attributions do not perfectly coincide with the attributions each of the others makes to the