1 Preliminaries

Most English speakers have heard of the Aztec and Maya of Mexico and Central America and the Inka of South America, but other spectacular New World civilizations are less widely known. The ruins of Teotihuacan (Figure 1.1) are only forty-five kilometers (twenty-eight miles) from downtown Mexico City, and its immense pyramids are visited by hundreds of thousands every year, yet the distinctive nature of the culture that produced these monuments is often not recognized. Some tour guides say the city was built by the Aztecs, but their empire was a late development of the 1400s, resting on a long earlier tradition created by Teotihuacanos, Toltecs, and others. Tourists rarely see more than the restored central district of the city, and are given no idea of the vast extent of unexcavated surrounding ruins, most of which are today only gentle undulations in a surface largely covered by vegetation or, increasingly, by modern settlements.

Teotihuacan flourished in the highlands of Central Mexico between about 150/50 BCE and 550/650 CE. For much of this time, the city's population approached a hundred thousand, and in those days it was the largest city in the western hemisphere, with scores of great pyramids, richly frescoed elite dwellings, and thousands of residential compounds for the masses. It was more widely influential than any other civilization of its time in Mesoamerica – the region of politically complex societies that developed in the southern two-thirds of present-day Mexico and in northern Central America. Teotihuacan interacted with other Mesoamerican societies as far away as the Maya of Guatemala and Yucatán, some 1,100 km (700 miles) to the east (Figure 1.2). Their culture shared some general features with Teotihuacan but was quite distinct in language, political systems, and styles.

In this book I try to distill what I have learned from 50 years' study of the great ancient city. But the literature on Teotihuacan is so vast that, in order to ever finish, I could not read everything important ever written about the city. I concentrate on an outline of Teotihuacan's history,

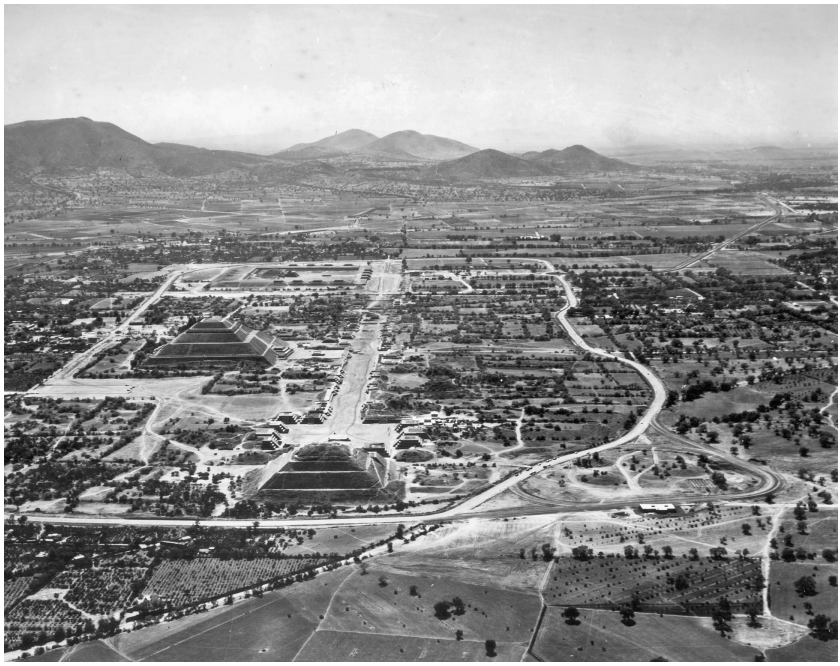


Figure 1.1. Aerial photograph of the central part of Teotihuacan, looking south along the Avenue of the Dead in 1965.
Courtesy of René Millon (1973).

on issues raised by contemplation of a society so different from ours, and on unanswered questions calling for further research. I focus on the city itself and deal briefly with events leading up to Teotihuacan, Teotihuacan's interactions with its neighbors, and the aftermath of its collapse.

I hope the book will appeal to a wide audience, but I have provided enough detail to make it useful for students and professionals concentrating on ancient civilizations elsewhere throughout the world. I have tried to tell a story about all aspects of Teotihuacan society, including technology, politics, economics, environmental interactions, religion, and what we can infer about the texture of life – both everyday and on exceptional occasions. I deal, insofar as possible, with all kinds of people in Teotihuacan society, inconspicuous commoners as well as the elite and powerful, men, women, and children. I avoid a static picture and discuss changes over time. For a society that had no full-blown writing, all this is a daunting challenge, and we cannot trace the life history and

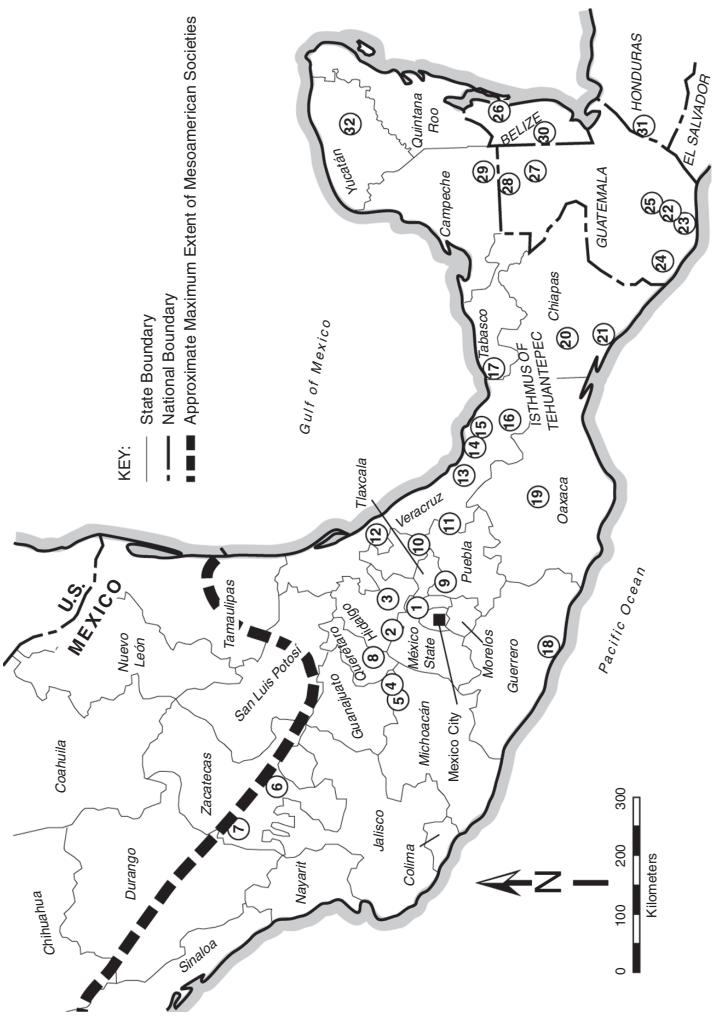


Figure 1.2. Selected archaeological sites in Mesoamerica.
1: Teotihuacan, 2: Tula, 3: Sierra de las Navajas, 4: Chupícuaro, 5: Ucareo, 6: La Quemada, 7: Alta Vista, 8: San Juan del Río, 9: Cholula, 10: Cantona, 11: Maltrata Valley, 12: El Tajín, 13: Cerro de las Mesas, 14: Tres Zapotes, 15: Matacapan, 16: San Lorenzo, 17: La Venta, 18: Acatempa, 19: Monte Albán, 20: Mirador, 21: Los Horcones, 22: Balberta, 23: Montana, 24: Tak'alik Abaj, 25: Kaminaljuyú, 26: Altun Ha, 27: Tikal, 28: Nakbé, 29: Calakmul, 30: Caracol, 31: Copan, 32: Chichén Itzá. By S. Vaughn.

deeds of any single individual. Nevertheless, there is much that we can say with some confidence.

To a degree, each person creates the past that he or she expects or wants or can imagine, but there are limits to how far one can go with this. There are real constraints on what one can reasonably believe about the past. One merit of continued research is that we can more sharply distinguish what is reasonable to think from what is not reasonable. Furthermore, we are constantly finding unexpected things that require us to revise our ideas drastically. Research on Teotihuacan is still in an early stage, and this book is a report of work in progress. It will be disappointing if little needs changing in another ten or twenty years.

Knowing about Teotihuacan is worthwhile for its own sake, as a society that was in many ways unique, and as an important part of the Mexican past, and that may be enough to satisfy many readers. Yet Teotihuacan was not so unique as to prevent useful comparisons with other ancient and modern societies. I try to do justice to what was special about Teotihuacan, but I also offer some comparisons and discuss how knowledge of Teotihuacan bears on some broad issues in anthropological theory, as well as concerns of today. I avoid presenting Teotihuacan as merely one example of some oversimplified and unduly homogenized abstract type, a defect of many comparative studies. However, claims that any specific society is too different from any other to permit meaningful comparisons are never convincing. It is a matter of method. Insights that can lead to better theory depend on nuanced comparisons among specific dimensions and aspects of variation, rather than on defining categories, although categorization can be a useful first step.

Pronunciations and Names

The name Teotihuacan is a tongue-twister for English speakers. We do not know what the ancient inhabitants called themselves or their city. Teotihuacan is the Spanish spelling of the name the much later Aztecs used for it in their language (Náhuatl, a language spoken today by about a million people). The meaning of this word is debated, but the most likely interpretation is something like "where divinity comes into being" (Ian Robertson, personal communication). In Spanish "hu" represents the same sound as "w" in English. The Náhuatl pronunciation is something like Tay-o-tee-WAH-kan, with stress on the next-to-last syllable, but in modern usage in Mexico the stress is often shifted to the final syllable: Tay-o-tee-wa-KAN (Teotihuacán in Spanish spelling). Here I follow the practice of many Mexican archaeologists in putting the stress on the next-to-last syllable, in the indigenous way, indicated by dropping

the accent mark over the final syllable. I refer to occupants of the city as "Teotihuacanos." Pronunciation of other non-English words is generally as in modern Mexican Spanish, except that "x" often has the sound of English "sh," and "tl" represents a single Náhuatl sound that has no equivalent in either Spanish or English and is said to resemble the "ll" of Welsh (not much help if your Welsh is rusty).

Theoretical Standpoint

My theoretical standpoint has been influenced by sociologists Anthony Giddens (1979, 1984, 1991) and Pierre Bourdieu (1977, 1990; Jenkins 1992), but I use their ideas more as points of view than as full-blown theoretical systems (Cowgill 2000c). My discussion of craft production, exchange, and consumption in Chapter 7 has profited from the lucid overview of the topic by Schortman and Urban (2004). I believe material circumstances are important but they are not all-important, and too much is left out by "processual" and other approaches that fail to give enough weight to human motivations and emotions. I am highly dissatisfied with the notion that change is primarily driven by societies' adaptive responses to stresses, as if societies behaved like knowledgeable individuals. Something a little like biological selection can occur among societies, but the mechanisms of selection and transmission are so different that biological analogies do not get us very far. Likewise, so-called neo-evolutionary approaches, much in vogue among anthropological archaeologists in the United States in the 1960s and 1970s, are unsatisfyingly simplistic, with their tendency (in spite of disclaimers) to categorize societies according to universal developmental stages or types such as "bands," "tribes," "chiefdoms," and "states." They also tend to put unwarranted trust in archaeologically discernible features that are supposedly diagnostic of the distinct types, such as the number of tiers in site sizes within a region – whether three tiers (large, intermediate, small) or four or more such tiers. Supposedly the tiers are determined objectively, but usually a large unacknowledged subjective element is involved. And even if the tiers were unambiguously present, their interpretation in terms of sociopolitical types is ambiguous. Recent critics of neo-evolutionary approaches include Norman Yoffee (2005), Adam T. Smith (2003), and Jeffrey Quilter and Michele Koons (2012). I see far more explanatory promise in considering the actions of multiple individuals as they seek to pursue their goals in interaction with their social, institutional, and natural contexts, and in light of their attitudes about what is most desirable and their beliefs about what will work best to attain what they desire. I see value in much of what has been labeled

"agency theory," although I avoid that term because it has been used to mean too many different things.

I have been influenced by some of the diverse archaeological literature labeled "postprocessual," especially in thinking that beliefs, states of mind, and emotions are important. However, I believe in a real past, and I believe archaeologists can and should achieve fuller and less ambiguous knowledge of that past (Cowgill 1993a). I am a philosophical realist (cf. Wylie 2002). I believe falling trees make noises even if no one is there to hear them. Some archaeologists see coexistence of multiple incompatible stories about the past as a refreshing kind of diversity that should be accepted and enjoyed, but I consider it a stimulating challenge that should be addressed. Different stories can be serviceable in different contexts and for different purposes, but I would like to "get it right" about a real past. For that reason, I sometimes say "clearly" this or that, but, more often than readers may like, I qualify statements with "probably," "perhaps," "possibly," or "conceivably." This isn't timidity. It's intended as a nuanced scale of the state of evidence, and a challenge to improve that state by further research.

"Dual-processual" theory (Blanton et al. 1996) has had a good effect in raising awareness that early complex polities differed considerably among one another. The theory postulates that there are two major political strategies in early polities: the "corporate" strategy emphasizes collective action within the polity, while the "exclusionary" strategy places more emphasis on individual rule and networking among the heads of different polities. But polities that differ greatly among themselves in scale and in other features share primarily corporate aspects, while in a wide variety of other societies exclusionary aspects predominate, so the distinction should not be used simply to pigeonhole cases. Additionally, I am troubled by treating the distinction as a matter of strategies. To me, the central distinction is in institutional structures. In some polities, institutions provide for strong centralization of power and authority, which are concentrated in a single individual or at most a very few top authorities. An extreme example might be Old Kingdom Egypt. In other polities, such as that specified by the U.S. Constitution, powers are more widely separated and shared among larger groups. In either case, *strategies* are pursued by individuals or interest groups, acting within a political arena that is shaped by the prevailing institutions. Strategies involve working within the institutional system, but also manipulating it, resisting it, or even subverting it. A simple corporate/exclusionary dichotomy does little justice to the various and changing institutions and strategies likely in play at Teotihuacan. Blanton and Fargher (2011) carry these issues further in their discussion of the collective logic of pre-modern cities.

Societies vary widely on several axes (dimensions) of sociocultural complexity (Nelson 1995). Those with a high degree of complexity and differentiation, and codification of institutions and political offices, are deservedly called states. However, I am unpersuaded by the claim made by some archaeologists that there is a clear threshold that makes all states qualitatively different from all non-state polities. I am especially skeptical of claims that there are readily discernible and reliable archaeological diagnostics of such thresholds. Many well-documented cases defy easy classification. For example, Charlemagne tried hard to create something enough like the defunct Western Roman Empire that it would have qualified as a state, but his success was limited and short-lived, and most of the polities of Western Europe between 500 and 1500 CE had mixes of state-like and chiefdom-like features. For these reasons, I often use the more ambiguous term "polity." The Teotihuacan polity can be called a state at least by 200 CE. It probably could be called that several centuries earlier, but I think it is unprofitable and unsound theory to try to specify an exact threshold date.

Box 1.1 The Metric System

As in other books in this series, I use "boxes" for information that is somewhat outside the main narrative, but too important to be relegated to an endnote.

I use the metric system for most measurements. One meter (m) is roughly three and a quarter feet, one kilometer (km) is about three-fifths of a mile, one mile is about 1.6 km, and one hectare (ha) is a square 100 meters on a side, that is, 10,000 square meters. There are 100 hectares in one square kilometer. One square kilometer is about two-fifths of a square mile. One cubic meter is about thirty-six cubic feet. One centimeter (cm) is 1/100 of a meter, and 1 millimeter (mm) is 1/10 cm.

Chronology

In the Maya lowlands, far from Teotihuacan, between about 250 and 1000 CE, inscriptions with "Long Count" dates (see Box 8.1) record the exact days, down to the day, of occurrence of many events. There are a few dated inscriptions elsewhere in Eastern Mesoamerica and in the Gulf Lowlands, one as early as 36 BCE. At Teotihuacan, and elsewhere in Mesoamerica, cross-ties with the Long Count chronology, based on datable imports from the Maya area or resemblances in ceramics or

other objects, can be useful, but local chronologies depend mainly on sequences of stylistic and technological change in ceramics (broken pottery fragments, "sherds," survive in great numbers), architecture, and other durable materials, and absolute chronological estimates are mostly based on radiocarbon dates, with limited and often highly controversial uses of archaeomagnetism, obsidian hydration, and other methods.

Box 1.2 Radiocarbon Dating

The nuclei of atoms consist of protons (each with a positive electrical charge) and neutrons (electrically neutral). Surrounding the nucleus is a swarm of negatively charged electrons, just enough to balance the positive charges of the protons and make the atom neutral. The number of protons determines what element the atom is (hydrogen, oxygen, etc.) and its chemical properties are mainly determined by the electrons. The number of neutrons in the nucleus can vary, and atoms with the same number of electrons and protons (and hence similar chemical properties) but different numbers of neutrons are called "isotopes" of one another. Some isotopes are unstable, and decay by radioactive processes. Atoms of carbon have a nucleus with six protons and a variable number of neutrons. Nuclei with six or seven neutrons are stable (^{12}C or ^{13}C), but those with eight neutrons (^{14}C) decay radioactively. Decay occurs randomly, so it is impossible to tell when any specific nucleus will decay, but on average, half of a large number of nuclei will decay in about 5,730 years. Living plants and animals constantly absorb carbon atoms from their surroundings, a fairly constant proportion of which are ^{14}C. When organisms die, fresh carbon is not added, so the ratio of ^{14}C relative to stable carbon steadily declines. This means that the ratio in the remains of a once living thing can be used to estimate how long it's been dead. Radiocarbon dates suffer from several sources of uncertainty, including the intrinsically probabilistic nature of radioactive decay, the need to adopt a calibration curve in order to take account of slight variations over time in the $^{14}C/^{12}C$ ratio in the environment, issues about the relation between the dated object and its archaeological context, and errors such as contamination, mislabeling of specimens, and instrument malfunctions. For all these reasons, one or even a dozen radiocarbon dates can be quite misleading. Nevertheless, frequently that is all we have.

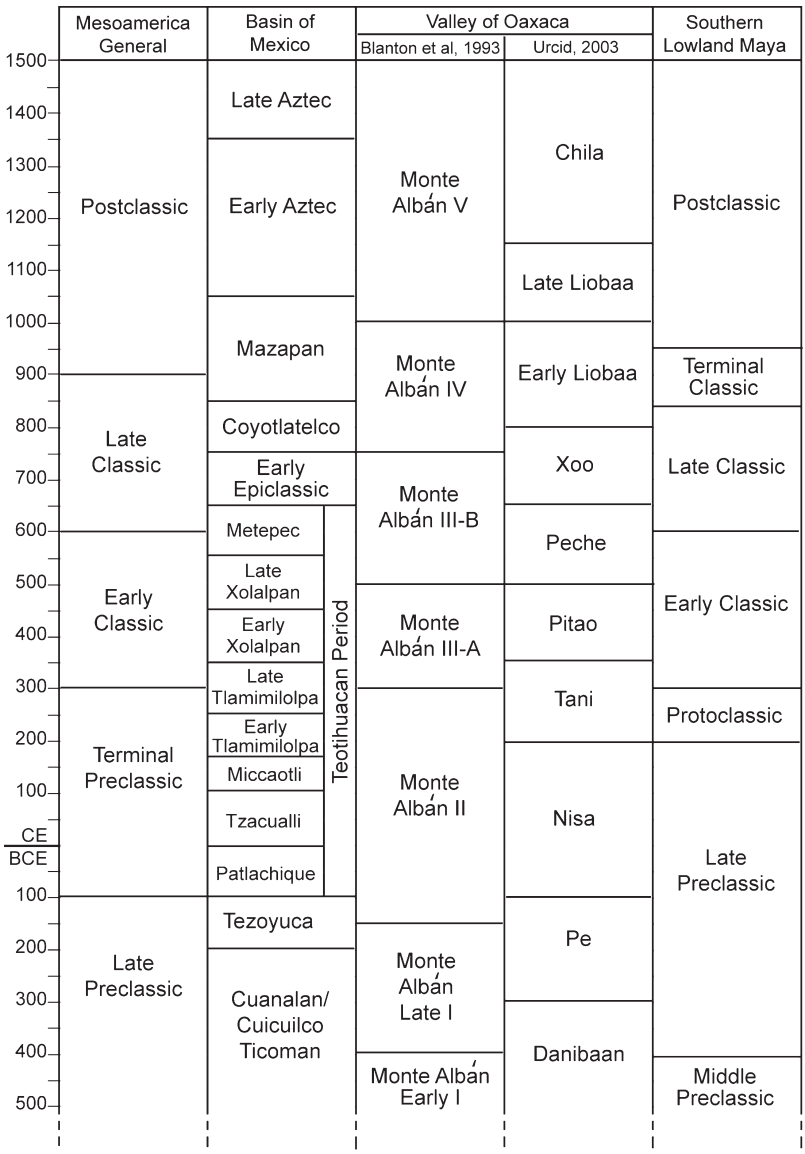
At present, units in many Mesoamerican chronologies come in chunks of two or three centuries, or even longer. Being able to deal with reliably identifiable periods of a century or less would not merely fill in minor details; it would transform our understanding of the past in the same way that the resolving power of microscopes and telescopes transformed biology and astronomy. With enough radiocarbon dates from good specimens, especially if combined with stratigraphic and other evidence from "Bayesian"[1] statistical analyses, such accuracy will be possible.

Two chronological systems have been widely used in Mesoamerica. Neither is satisfactory. One consists of broad stages or periods: Paleoindian, Archaic, Preclassic (or Formative), Classic, and Postclassic, sometimes with an "Epiclassic" period inserted between the Early Classic and the Postclassic. This system suffers from a tendency to mix pure chronology with developmental stages, so that a "Classic" stage may be reached several centuries later in one region than in another. In the 1970s, an attempt was made to introduce a developmentally neutral and purely chronological system of "Horizons" separated by "Intermediate Periods" (Millon 1976a; Price 1976) but this has not been widely adopted. It has proved less neutral than was hoped, because it induces one to think of cycles of greater and lesser pan-Mesoamerican unity (Rice 1983).

Neither scheme is well suited for Teotihuacan because major breaks in both systems (between the Late or Terminal Preclassic and the Early Classic, and between the First Intermediate Period and the Middle Horizon) do not correspond well to major changes at Teotihuacan. It is better to think of a Teotihuacan Period, from the beginning of Teotihuacan somewhere around 100 BCE to the violent destruction of the city's civic-ceremonial core, around 600 CE. To subdivide the Teotihuacan Period, I use the local relative chronology of ceramic phases. Most of these names derive from polysyllabic Náhuatl terms that English speakers must learn by rote. Numbered phases may seem more logical. However, numbered systems can become cumbersome and hard to learn when chronologies are revised and refined, especially if what was once thought to be Period III is subsequently found to be earlier than Period II. Table 1.1 shows my current chronological estimates for Teotihuacan, as well as for the Valley of Oaxaca and for Mesoamerica in general.

The absolute dates I use for Teotihuacan are estimates based on calibrated radiocarbon dates and any other relevant evidence I could find. They differ somewhat from those in earlier publications, including my own. I have taken into account the recent Bayesian statistical analysis

Table 1.1. Chronological estimates for Teotihuacan, Valley of Oaxaca, and Mesoamerica



Drawn by S. Vaughn.