CHAPTER 16
MESOAMERICAN CIVILIZATION

David Webster and Susan Toby Evans, The Pennsylvania State University

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This chapter is the first of three describing the peoples and cultures of the Americas during the period from 2300 BC down to European contact and colonization in the 16th and 17th centuries. The earlier background, from the adoption of agriculture to the development of settled village farming, was set out in Chapter 9. Here, we follow the rise of complex societies and early states in Mesoamerica from the Olmec through the Maya, Toltec, and Aztec, up to the arrival of the Spanish adventurer Hernan Cortés in 1519.

When the Spaniards made their first landings in Mexico early in the 16th century, they encountered a world much more sophisticated than the one they had met with up to this time in the Caribbean. Kings and lords ruled over dense populations of farmers who supported them with taxes and tribute. Well-tended agricultural landscapes, often ingeniously irrigated and terraced, produced lush yields of maize, beans, and many other crops (Whitmore and Turner 1992; 2001). Lavish stone palaces, temples, and ball courts dominated impressive towns or political centers, the grandest of which were populous urban places comparable to the major cities of, for instance, Europe and North Africa. Professional merchants brought feathers, gold, jade, chocolate, and other costly goods to great urban markets. Scribes recorded the tribute of empire in brightly painted books, along with the genealogies of kings, the histories of peoples, and accounts of world creation. Priests scrutinized elaborate calendars for propitious times to celebrate a bewildering variety of rituals. Presiding over all were the powerful gods of war, rain, maize, and the sun, whose visages, along with those of kings, graced countless carved and painted monuments.

Particularly distinctive in this new world was a set of specific ideological beliefs, ritual practices, aesthetic conventions, and intellectual achievements (Miller and Taube 1993). Local societies broadly shared writing, shamanism, the use of 260- and 365-day calendars, a reverence for jade and other green stones, human sacrifice (especially through heart excision), traditions of multiple world creations, the belief that the earth was divided into four cardinal directions associated with particular colors, complex concepts of the human soul, carved stone stelae and altars, and a ball game that was played for both recreational and ceremonial purposes. Also shared were certain conventions of cosmetic or bodily presentation, most notably the use of ear flares, cranial shaping, and modification of the teeth by filing and inlays.

While some of these occurred elsewhere in the New World, taken together they form part of a distinctly Mesoamerican "package" of cultural features. Writing especially impressed the Spaniards as an essential hallmark of civilization (Boone 2000), and the Classic Maya are famous for their use of the mathematical concepts of "zero" and "place," which formed the basis for their highly accurate Long Count calendar (Sharer 1994) [see box: The Mesoamerican Calendar, pp. 606–07].

Despite their common features, however, Mesoamericans were never ethnically unified. The estimated 260 separate languages spoken in the 16th century illustrate the striking diversity that characterizes the region even today, when over 80 are still in use. Nor was any power ever able to unite all of Mesoamerica politically, not even the expanding Aztec empire with which the Spaniards collided in 1519. Nevertheless, there were long periods, conventionally called horizons, when vigorous regional cultures exerted unusually strong cultural, ideological, economic, or political influence over very wide areas. Such influences emanated at various times from several dynamic and precocious core regions, such as the Mexican Gulf Coast and the Basin of Mexico.

The distribution of many elements of Mesoamerican civilization (e.g. human sacrifice, the 260-day ritual calendar, the ball game) may reasonably be attributed to diffusion from restricted areas of origin. But "... the really significant development in the evolution of any civilization is the increase of societal size and internal heterogeneity, that is, the emergence of class and occupational divisions; and this is a process, not an invention to be diffused from place to place" (Sanders 1972, 152). This fundamental civilizing process took place in a remarkably varied landscape over several thousand years, and was heavily influenced by local environmental and ecological conditions.

The Landscape and its Peoples

When the Spanish arrived in Mesoamerica there were many thriving regional cultures and populations, stretching from what is today central Mexico to the northwest to El Salvador to the southeast (Chapter 16.2). The imperial Aztecs and other Nahua-speaking peoples dominated the Basin of Mexico and adjacent highlands. To the west loomed the expanding empire of the Tarascans. Farther south, Mixtec and Zapotec peoples occupied Oaxaca and its neighboring valleys, while a solid block of Mixe-Zoque speakers extended from the Gulf Coast to the Pacific. Maya speakers were concentrated in the northern part of the Yucatán Peninsula and in the highlands of southern Mexico and Guatemala.

A distinctive feature of the mature Mesoamerican cultural tradition is that by 1519 it included virtually no hunter-gatherer societies, although farmers typically augmented their diets by
hunting, fishing, or foraging. Equally distinctive is that an impressive array of domesticated plants was poorly supplemented by domestic animals; particularly lacking were large herd animals. Introduction of Old World livestock after the Spanish conquest stimulated rapid and dramatic ecosystem transformations (many of them deleterious), and drastically affected social and economic behavior. Old World livestock allowed humans to exploit zones marginal or unsuitable for agriculture, thus enlarging their effective niches. Varying degrees of pastoralism not only affected diet (animal fat in particular was highly desirable), but also created patterns of group mobility and territoriality, divisions of labor, capital accumulation, and exchange that were very different from anything seen in pre-hispanic Mesoamerica.

Neither at the north nor the south was Mesoamerica delimited by sharp natural topographic or climatic boundaries. Its limits shift somewhat over time, depending on climatic change, population movements, and cultural interactions, but wherever they are positioned, Mesoamericans were certainly not isolated. To the north, native peoples in the Hohokam region of the
southwestern United States constructed ball courts and possessed copper bells, macaws, and other things native to Mesoamerica (Chapter 18). Turquoise was imported into Tenochtitlán, the Aztec capital, from sources in northern Mexico and the southwestern United States. Gold from distant Colombia and Panama found its way into burials and offerings in Yucatán, and the first Mesoamericans sighted by Europeans were probably Maya traders who plied the waters of the Gulf of Honduras in large dugout canoes. Despite all these external contacts, however, the coherent package of cultural traits outlined above served to make Mesoamerica as distinctive as ancient Egypt, China, Mesopotamia, or the other precocious civilized regions of the Old World. It was, moreover, the only part of the ancient New World that developed true writing systems, thereby uniquely contributing to our understanding of the Mesoamerican past.

When Hernán Cortés visited the Spanish court and was asked to describe the lands he had conquered, he purportedly crumpled up a sheet of parchment and threw it on a table, saying, “That is Mexico!” This bit of drama graphically illustrates
the rugged mountain systems that dominate much of Mesoamerica. Topographic compartmentalization stimulated much local cultural and ethnic diversity, and people had to adapt to environments ranging from high, cool mountain valleys to lowland tropical forests. There were, moreover, no great navigable rivers comparable to the Nile or the Tigris/Euphrates that served to unite the whole region, or that encouraged the development of massive irrigation works.

The mature tradition of Mesoamerican culture had been gradually assembled over thousands of years. Some of its components, such as shamanism and the division of the world into cardinal directions associated with colors, seem extremely ancient, and were arguably introduced by the earliest settlers. Others emerged much more recently, particularly after the establishment of effective agriculture, which, as we have seen in Chapter 9, was itself a long, slow process. Ball courts appear as early as 1400 BC (Hill et al. 1998) [see box: The Mesoamerican Ball Game]. The earliest certain Mesoamerican writing systems only emerged c. 900–300 BC (Marcus 1992), shortly followed by the first great cities and the first kings and stratified societies. Metallurgy, such as it was, appeared even later – after about AD 600–800 – possibly stimulated by contacts with Ecuador or Peru (Lechman 1984). Nor were ancient peoples everywhere rapidly and uniformly drawn into the expanding sphere of Mesoamerican identity. The inhabitants of western Mexico, among others, developed independently for a long time. Ancestor veneration, strong among the Zapotecs, Mixtecs, and Maya, was much less important in the central highlands of Mexico. Even as late as the 16th century, the Tarascans, who conquered their own impressive empire to the west of the Aztecs, apparently had no writing at all.

Diverse as they were in some ways, Mesoamerican societies were all characterized by marked technological simplicity. Gold, silver, copper, and some bronze-like alloys were used to make objects for ritual or social display, but very seldom to make utilitarian tools or weapons. Basic tasks were accomplished with stone, wood, and fiber tools, which by Old World standards were comparatively crude and ineffective. There were no large domestic animals such as horses, oxen, mules, or donkeys that could be used for traction or transport. Also lacking were devices that augmented human effort, such as pulleys, wheeled vehicles, sails, or complicated machines of any kind. As we shall see, these technological constraints had important consequences for trade, war, and urban growth (Hassig 1985).

An evolutionary lesson that runs counter to the Western historical experience (and that of some other parts of the world, such as China) is that dynamic social and cultural change can be largely unrelated to technological innovation. A Mesoamerican magically transported from the time of Christ to the eve of European contact would find few tools, materials, or construction methods (metallurgy apart) that were very different from those of his own time, although the sheer scale of buildings or irrigation systems might dwarf anything he knew. What would disorient and impress our visitor would be the enormous populations, the huge settlements, the complex and powerful institutions and offices, and the landscape transformations all about him.

As a framework for our discussion of this distinctive Mesoamerican cultural tradition and the many regional cultures that manifested it, we will use several broad temporal divisions, with the caveat that these mainly represent time periods convenient to archaeologists. They are not necessarily reflective of thresholds or episodes meaningful or even perceptible to ancient Mesoamerican peoples themselves, nor do they imply that important changes in one region affected Mesoamerica as a whole, or at the same time. We begin about 2500 BC, when something that can reasonably be called the Mesoamerican tradition of civilization first began to crystallize.

The Spread of Agriculture and the Rise of Complex Societies in Preclassic Mesoamerica

Not long ago Preclassic (also called Formative) Mesoamerica, which spans nearly 2500 years, was envisioned as a land of simple farming communities that were eventually eclipsed by brilliant Classic cultures that emerged suddenly after AD 250, with their huge cities, writing, and opulent art and architecture. Archaeologists now recognize that the abruptness inherent in this picture was wrong, for it does not take into account the two major evolutionary trends that dominated the long Preclassic interval. First was the spread of agriculture, with all its social, political, economic, technological, and demographic consequences. Second was the emergence of social, political, and ideological complexity. At 2000 BC, Mesoamerican populations were very small, and most people were still hunter-gatherers, or at most partly dependent on agriculture. By AD 250 these people had developed cities, temples, palaces, and dynasties of well-established rulers, and the symbolic/ideological accouterments of Mesoamerican civilization, including calendars and monumental art, were firmly in place. Writing was as yet uncommon, however, and very few early inscriptions have survived, so Preclassic Mesoamerica remains essentially prehistoric from our perspective.

All great agrarian civilizations are based on systems of effective agriculture, typically centered on a handful of staple crops. More than 100 domestic plant species were eventually grown in Mesoamerica, but only a few contributed heavily to the diet, and by far the most important of these was maize. Maize was not just the basic food, but also a plant of extraordinary ideological and spiritual significance, much as rice is in parts of eastern
The Mesoamerican ball game could be played on any flat surface, but generally required a formal facility consisting of a long rectangular court flanked by structures with vertical or sloping sides. Scoring was accomplished in several ways, but basically involvedstriking a rubber ball (without using the hands or feet) through an "end zone" or, more rarely, through a stone ring set high up on the sidewall of the court. The court itself was conceived as a liminal place connecting the surface of the earth and the underworld; some versions of the game had great cosmological significance, and appear to have been associated with human sacrifice. Some ball games also functioned as events in which powerful chiefsof kings hosted emissaries from other polities, and so had great political significance. Other games seem to have been purely recreational, especially during Postclassic times (AD 1000–1519), and observers wagered vast amounts of personal wealth on their outcomes.

16.3 The game, seen here on a Maya vase of c. AD 600–800, had great symbolic significance, and the losers of the contest on the court sometimes also lost their lives.

16.4 The site of Copan has one of the largest ball courts in the Classic Maya Lowlands, built in the characteristic T-shape with sloping sides.

Asia. Mesoamerican cosmology sometimes envisioned the surface of the world as a maize field, and it was widely believed that the gods created humans partly from maize. Rituals of sacrifice and renewal mimicked the lifecycle of the maize plant, and maize deities ranked high in the pantheon of Mesoamerican gods. Even some forms of human sacrifice, such as ritual beheading, are thought to be metaphors for harvesting ears of maize. Cultivating maize was an annual act of consecration for humble farmers, and a family that could not grow its own maize was not quite respectable – an attitude that survives in many parts of Mesoamerica today.

Maize seems originally to have been domesticated from its wild ancestor teosinte during the Archaic period, sometime before 4300 BC, with its primary center of dispersal in the upper Balsas River valley of southwestern Mexico (Matsuoka et al. 2003) [see The Domestication of Maize box, p. 317]. Maize fragments from Guía Naquitz, a dry highland cave in the Valley of Oaxaca, date to 4300 BC, and indirect evidence suggests that the plant may have been grown in lowland zones such as the Mexican Gulf Coast by 5000 BC (Piperno and Flannery 2001; Pope et al. 2001). Clearly, maize was a crop that could be fairly rapidly adapted to many environmental circumstances.

What is surprising, then, given its later importance, is how long it took for maize (along with other cultigens) to trigger the kinds of changes that we commonly associate with the adoption of agriculture, such as sedentism and the use of pottery – both hallmarks of the Early Preclassic. One probable reason for this slow impact is that, unlike the various wild wheats of Southwest Asia, teosinte is a very unlikely candidate for domestication (Illes 2000). Wild teosinte produces abundant seeds, but these are small, difficult to process into usable form, and not very palatable. Many generations of human selection were required to produce large-kernelled maize cobs, and early maize was, for a long time, not an effective staple, but rather a useful
adjunct to a traditional diet largely consisting of wild resources, as described in Chapter 9.

Use of pottery was once thought to be a good marker for the onset of the agricultural way of life, and one reason for setting the beginning of the Preclassic at 2000 BC is that the first pottery appears about this time at sites on the Pacific coast of Mexico. A century or so later it was present in the Tehuacan Valley, and thereafter it became increasingly widespread. Much of this early pottery is rather crude, and some of its basic shapes seem to mimic earlier vessels made from gourds or carved from stone. Over the next few hundred years, ceramic assemblages increasingly included vessels carved or painted with complex designs.

A somewhat later, but very important, Preclassic innovation was the production of distinctive stone tools called prismatic blades. First appearing c. 1500 BC, these were usually struck or pressed from carefully prepared obsidian cores. Such blades (or cores) were widely traded and remained the most common Mesoamerican cutting implements right up to the 16th century.

**KEY SITE: Paso de la Amada and the Emergence of Social Complexity**

Paso de la Amada (c. 1550–850 BC) is located on the Pacific coastal plain near the modern border between Mexico and Guatemala (Blake 1991). This region was covered by heavy tropical forest, and the inhabitants of Paso de la Amada occupied a sandy ridge near old river channels and lakes—an excellent set of microenvironments for gardening, gathering, hunting, and the exploitation of riverine and marine resources.

Foundations of more than 50 residences have been mapped, and the community eventually covered at least 50–75 ha (124–183 acres). Two parallel mounds delineate a level area about 80 m (262 ft) long and 7 m (23 ft) wide—the earliest ball court (and one of the largest) so far discovered in Mesoamerica.

Controversy centers on Mound 6, an unusually large earthen structure c. 20 m (66 ft) long, which was rebuilt six times between about 1350 and 1250 BC. The excavator interprets it as a chiefly residence given its architectural features and the abundant associated domestic refuse. Other archaeologists believe that it was some sort of public building, perhaps a young men’s house. Both views might be correct, for the houses of prominent leaders often had important communal functions later on. This is an important issue, because although we know that social ranking and stratification evolved during the Preclassic, tracing their earliest archaeological manifestations is challenging. Another impressive building, Mound 4, has been interpreted as a residence or temple.

Paso de la Amada seems to have been the largest of a number of villages in the region during the Early Preclassic, and might well have functioned as a kind of chiefly capital or central place for people living in nearby communities. Ornate serving bowls and dishes suggest frequent feasting, and non-local materials such as obsidian and jade were imported from sources hundreds of kilometers away. On the other hand, the numerous burials recovered were all given simple mortuary treatment, suggesting few social or political distinctions and little concentration of wealth. Although maize might have been eaten early on, it was not a dominant part of the diet, judging from studies of stable isotopes in human bone samples.

This was obviously an impressive and long-lived community, the architecture of which hints at emergent elites or political leaders, or at least considerable expenditure of organized community labor. So why is this social differentiation not reflected in burial rituals, as it is later in Mesoamerica? Another question is whether Paso de la Amada thrived on a subsistence economy that featured marine/estuarine resources rather than agriculture.

Whatever the answers, the presence of the ball court helps to reveal the origins of one of the most distinctive features of the Mesoamerican cultural tradition. Even more important, Paso de la Amada somewhat predates the Olmec culture, which left one of the most flamboyant archaeological records of any ancient Mesoamerican people, and which was long envisioned as the most precocious Early to Middle Preclassic society.

16.5 Earthen floor of Mound 6 at Paso de la Amada. This has been interpreted either as a chiefly residence or a public building, or possibly both.
The First Agricultural Communities

The first widespread and reasonably permanent agricultural communities date to around 1600 BC, hundreds of years after the first pottery. Early agricultural settlements typically consisted of small clusters of simple houses with earthen floors, walls of wattle and daub, and roofs of thatch. Often, as at San José Mogote in the Valley of Oaxaca (16.6), the spaces between houses were used for gardens, the produce from which supplemented deer, rabbits, quail, and other wild resources (Marcus and Flannery 1996). Slightly larger structures probably had specialized communal purposes. A big “dispersed village” such as San José Mogote might have had about 200 inhabitants in 1400–1300 BC. Other communities in Oaxaca at the time were smaller, and all seem to have been politically autonomous. Imported macaw feathers and shells of oysters and turtles hint at differences in wealth, but there were as yet no unusually large residences or elaborate burials. Burnt remains of an apparent timber palisade at San José Mogote suggest that raiding and warfare were present even as the first villages were established (Flannery and Marcus 2003).

Similar communities, such as Chalcatzingo (Grove 1984), were established in the central Mexican highlands at about the same time, part of a colonizing process that introduced agriculture into the high, cold valleys of the Basin of Mexico (although various plants might have been cultivated there as early as 3000 BC). Not until about 1000 BC is there substantial evidence for farming communities in the tropical Maya lowlands, although signs of forest disturbance consistent with cultivation appear at least 2000 years earlier (Pohl et al. 1996). Elsewhere in the lowland tropics, agricultural communities were well established by about 1600 BC; some show signs of unusual size and precocity, and the first glimmerings of increased social complexity [see box: Paso de la Amada and the Emergence of Social Complexity].

The ethno-linguistic affiliations of these various early Preclassic peoples remain unclear and controversial, in part because there were many population movements. In some cases archaeological evidence suggests considerable continuity—early farmers in the Valley of Oaxaca almost certainly spoke ancestral forms of modern Zapotec. The first villagers in some parts of the Maya lowlands, however, might have spoken a non-Maya language, perhaps of Mixe-Zoque affiliation, before being pushed to the west by intrusive Maya speakers (Ball and Taschek 2003).

The Olmecs, c. 1200–400 BC
(Early to Middle Preclassic)

During the mid-19th century, archaeologists and collectors began to recognize distinctively decorated objects of pottery, jade, and other materials that did not fit the canons of better-known Maya, Zapotec, or Aztec art (Benson and de la Fuente 1996; Clark and Pye 2000; Diehl 2004). Such objects were small and portable and turned up in many parts of Mesoamerica, but in 1862 the huge monolithic sculpture of a stone head in this mysterious style was found at Tres Zapotes on the Mexican Gulf Coast, clearly in or near its original location. Eventually the term “Olmec” (derived from the Aztec name for the people who lived in this region in the 16th century) became attached to
this art style. Surveys and excavations beginning in the 1920s confirmed that the style was associated with large Gulf Coast sites such as La Venta and San Lorenzo, and so the label was also applied to the ancient inhabitants of this presumed "homeland." Just who the Olmecs were, what language they spoke, and their relationships with other Mesoamerican cultures have stirred intense debate ever since.

Most immediately controversial was Olmec chronology, an issue difficult to sort out before World War II, in the absence of sophisticated dating methods. Archaeologists devoted to the idea that the Classic Maya were the great "Mother Culture" of Mesoamerican civilization refused to believe that the Olmecs predated the Maya, while an opposing camp asserted that the Olmecs were much older. The advent of radiocarbon dating in the 1950s resolved this issue, and we now know that Olmec culture thrived roughly between 1200 and 400 BC. Olmec influences were especially pronounced and widespread during the Middle Preclassic (1000–400 BC), creating what is sometimes called Mesoamerica's Early Horizon—a time when art and symbols, and presumably the ideologies behind them, were widely shared.

San Lorenzo and La Venta

Non-chronological issues could not be resolved so easily. Archaeologists agree that there were impressive Olmec polities in the Gulf Coast lowlands, where meandering rivers flowed through dense tropical forests. The earliest of these was dominated by San Lorenzo, c. 1200–900 BC (Cyphers 1996), where the Olmecs leveled the top of a natural plateau standing about 50 m (165 ft) higher than the surrounding countryside. On the summit they erected an impressive building called the Red Palace, probably an elite residence, and created an elaborate system of what appear to be ceremonial ponds and drains. Water seems to have been of great ritual significance; spectacular offerings, including carved wooden effigies and large rubber balls, were placed in the nearby spring-fed pond of El Manati. Whether many people lived on top of the San Lorenzo plateau is unclear, because the Olmec levels are covered by accumulated debris from much later occupations. About 500 ha (1235 acres) of artificial terraces with associated house foundations have been mapped on the adjacent slopes, however. Some of these are Early Preclassic residences, although it is uncertain how much of this habitation zone dates to Olmec times. Surveys have located long, causeway-like features around San Lorenzo that linked settlements, supported houses, and possibly channeled water in this frequently flooded environment.

Archaeologists have recovered scores of large basalt monuments at San Lorenzo, including ten of the trademark colossal stone heads (16.8). All were probably originally set up in public places on the plateau top. They were carved from stone quarried 60 km (37 miles) from San Lorenzo; this material was sufficiently valuable that old, unwanted monuments were cut apart and recycled into smaller sculptures or other objects in workshops near the Red Palace. Olmec artisans also polished exotic iron minerals brought from the Mexican highlands into mirrors, which were used in shamanistic displays and as objects of wealth and status. Other imports included obsidian and, no doubt, many other, perishable materials, such as feathers of the quetzal bird. Olmec carvings of blue-green jade are particularly distinctive, the raw material having come from the upper reaches of the Motagua River in Guatemala.

San Lorenzo's decline c. 1000–900 BC coincided with the rise of La Venta, another large, sprawling center about 88 km (55 miles) to the northeast (16.9) (Gonzales Lauck 1995). Its most impressive feature is an earthen pyramid over 33 m (108 ft) high, around which cluster many lower earth structures and associated courtyards. The most famous of all Olmec carved monuments, including colossal heads, stelae (upright stone

16.8 Colossal head: this example is from San Lorenzo, but each such image wears a distinctive cap similar to those sometimes later worn by ball-players.
16.9 (Left) Plan of La Venta: the largest Olmec capital, the site of La Venta included an earthen pyramid over 33 m (108 ft) high, among numerous other earth structures.

16.10 (Below) Olmec throne: the carvings show gorgeously dressed adults holding naked, baby-like figures with fanged, snarling mouths; La Venta.

earthen structures and carved monuments. Clearly, San Lorenzo and La Venta were political capitals where powerful leaders resided, supported by sizable outlying populations numbering in the thousands. Several other such capitals, as yet inadequately tested by archaeologists, might have coexisted with them in the Olmec heartland. Although earlier signs of Preclassic social and political complexity are glimpsed at Paso de la Amada and elsewhere, the Gulf Coast Olmecs do appear unusually precocious for their time.

**The Olmecs as a “Mother Culture”?**

Archaeologists are divided about what all this means. Some believe that heartland Olmec polities had all the institutional and symbolic trappings of true civilizations, such as those found later in Mesoamerica, and that centers such as La Venta were complex urban places. Flamboyant art and architecture notwithstanding, others assert that Olmec social and political organization were on the simpler, chiefdom level, and that places like La Venta mainly served as elite residences and ritual centers (the view taken here).

Fueling this controversy is intense disagreement about the nature and implications of “Olmec” art and symbolism. Some of the classic manifestations of the style, such as the colossal heads, are confined to the Gulf Coast. These heads are generally interpreted as portraits of individual chiefs or kings, and plausibly...
KEY CONTROVERSY

Were the Olmecs Mesoamerica's "Mother Culture"?

Oblongs and motifs now labeled "Olmec" were widely distributed across Mesoamerica, particularly during Middle Preclassic times, c. 1200-400 BC. This period coincides with the flourishing of La Venta and is sometimes called the Early Horizon, when broadly shared aesthetic/symbolic patterns can be discerned throughout much of Mesoamerica for the first time.

Sculptures found as far away as Chalcatzingo in El Salvador closely resemble monuments from La Venta, and cave paintings at Oxtotitlán in western Mexico show human/animal figures sitting on La Venta-style thrones. Some smaller portable objects in the Olmec style appear to have been exported from the Gulf Coast, and locally made ones are decorated with Olmec designs.

Two routes of communication seem particularly important. One led up into the highland valleys of Puebla and Morelos, and then farther away to the Basin of Mexico and western Mexico. Another ran through the Isthmus of Tehuantepec, from there to the Pacific piedmont of Mexico and Guatemala, and eventually all the way to El Salvador.

The Case For ...

All this evidence for widespread influence, plus the precocity of San Lorenzo and La Venta in terms of public architecture, large stone monuments, and sophisticated art and iconography, convinces some scholars (e.g. Diehl 1996) that the Gulf Coast Olmecs were great innovators who not only invented many of the basic elements and institutions of Mesoamerican civilization, but also transmitted them widely to less developed societies through trade, diplomatic exchanges, religious proselytizing, war, and other forms of direct or indirect contact. In short, the Olmecs were Mesoamerica's "Mother Culture."

... and Against

The alternative and more prevalent view (e.g. Grove 2000) is that the Olmecs were only one of many regional societies in Mesoamerica that were rapidly evolving new and more complex social and political institutions during the Early and Middle Preclassic, along with their attendant aesthetic, intellectual, and ideological traditions. Interregional contacts certainly played a part, but the most fundamental evolutionary processes were local ones.

Many of the shared traits, for example those related to shamanism, might have been inherited from a commonly held set of very ancient beliefs. The Early Horizon was, in fact, created not by the overwhelming dominance of the Gulf Coast Olmecs, but instead by this larger sphere of interaction and shared origins, to which many regional societies eventually contributed as equals.

Among the objections to the "Mother Culture" interpretation is that some sites, such as Paso de la Amada, show evidence of considerable social complexity, along with specific features such as ball courts, centuries before comparable evidence appears in the Olmec heartland. Moreover, many so-called "Olmec" icons or stylistic elements seem to originate elsewhere in Mesoamerica, so their distribution does not imply a primary role for the Gulf Coast people. In addition, some parts of Mesoamerica that show signs of early sophistication, such as the Maya lowlands and the highlands of Guatemala, yield few or no indications of direct Olmec influence.

Nor were the Olmecs necessarily the first great builders. Early monumental architecture is found elsewhere, such as in the planned arrangement of large earthen structures at Chipa de Corzo in Mexico, built c. 700 BC. Some Maya sites in the Mirador Basin of northern Guatemala also had massive stone and plaster buildings at least as early as 400 BC. In these and other places, the tradition of monumental structures appears to be as early as La Venta's great pyramid. Temples, elite residences, and elaborate burials accompanied by what appear to be sacrificial victims all appeared in the Salama Valley in highland Guatemala c. 800-400 BC, and many more examples of such precocity could be listed.

Overview

Proponents of either argument can point to specific sites to bolster their claims.

Supporting the "Mother Culture" perspective, for example, is Teopantecuilitlán. At this site in the highlands of western Mexico are Olmec-style zoomorphic monuments, along with an impressive arrangement of sunken ritual courts and terraces, all built c. 1000-800 BC. On the other hand, nothing comparable has been found in the Basin of Mexico at the same period, although it had long had its own thriving agricultural communities.

Chalcatzingo in Morelos was established as a farming village by 1500 BC, and within a few hundred years was a dominant center of the region. Distinctly Olmec carvings appear within the community itself and on nearby natural rock faces c. 700-500 BC. Yet the ceramic traditions of Chalcatzingo are firmly rooted in those of the central highlands of Mexico, and its inhabitants were not in any sense Gulf Coast Olmecs, although people from there must have visited the site. Finds at Chalcatzingo illustrate why it is so difficult to resolve the "Mother Culture" issue to everyone's satisfaction — one can use them to support either perspective.
represent the beginnings of a long Mesoamerican tradition of monumental ruler depiction. Gorgeously dressed figures are frequently shown on stelae or altars (particularly at La Venta). And this pronounced hierarchical theme in Olmec monuments points to considerable political centralization and social ranking. Although no Olmec ball courts are known, some figures display elements of the ballplayer’s costume (Whittington 2001).

Much “Olmec” art is not restricted to the Olmec heartland, however, but is scattered throughout Mesoamerica. Some archaeologists think this distribution reveals the Gulf Coast Olmecs as the most dynamic of all Early and Middle Preclassic cultures – indeed, as the “Mother Culture” of later Mesoamerican civilization. Others argue that the heartland Olmecs were just one of many Mesoamerican societies that independently evolved complex institutions and cultural patterns, despite undoubted trade and other interactions [see box: Were the Olmecs Mesoamerica’s “Mother Culture”?]. Contributing to the confusion is the fact that many “Olmec” objects come from looted sites, so their original contexts are lost, and not a few have turned out to be fakes.

Whatever one’s opinions concerning the “Mother Culture” hypothesis, or whether even the most complex Early to Middle Preclassic cultures warrant the label “civilization,” many basic elements of the Mesoamerican cultural tradition, including effective agriculture, marked political ranking and centralization, large centers with monumental architecture and sculpture, and the ball game, were firmly in place by the end of the Middle Preclassic, c. 400 BC. Another more sinister aspect of Mesoamerican life that later became very prominent – warfare – was also present at least by this time. Some Olmec monuments show what seem to be weapons and militaristic scenes. A rich burial dating to c. 300 BC, found at El Portón in the highlands of Guatemala, was accompanied by several trophy heads and the corpses of 12 probable sacrificial victims (Sharer 1994).

West Mexican Polities, c. 1500 BC–AD 400

In spite of all this dynamism and interaction, some regions of Mesoamerica developed in their own unique ways during the Early and Middle Preclassic, and remained for centuries marginal participants at best in the evolving wider tradition of Mesoamerican culture. Conspicuous among them is western Mexico (Weigand 2001a; Beekman 2000), where between about 1500 BC and AD 400 a distinctive set of societies using vertical shaft tombs emerged in the Mexican states of Colima, Nayarit, and especially Jalisco (which seems to be the center of the tradition). Unfortunately, this western region was long neglected by archaeologists, and many of its best-known archaeological objects come from looted tombs. Ancient west Mexican people have been sometimes characterized, rather pejoratively, as the “country cousins” of mainstream Mesoamericans, mainly because most sites lack monumental buildings and carved monuments, and there are few indications of calendrical signs. A fairer assessment is that the societies of this region had their own vigorous and distinctive developmental trajectory, which they maintained for many centuries. Some archaeologists have persistently argued that there were maritime contacts between western Mexico and northwestern South America. These claims are mainly made in regard to the origins of Mesoamerican metallurgy [see box: Metallurgy in Mesoamerica, p. 611], but also on the basis of ceramic forms.

Such possible influences aside, it is clear that various policies in Preclassic western Mexico were hierarchically organized, and that their chiefs and other elites were buried in deep shaft tombs. Some tombs included only single interments, but others were ossuaries that seem to have served large groups for generations. Weapons, tools, ornaments, and elaborate pottery accompanied the dead. Most impressive of all the mortuary goods (and the principal reason for the looting) are large, hollow figurines of dogs, warriors, rulers, and religious practitioners. Among the most informative of these sculptures are complex models of houses, rituals, ball games, musical performances, and people being carried in litters. All this complexity seems to reflect a politically fragmented landscape and much elite rivalry. By the beginning of the Late Preclassic period there was a shift from this preoccupation with mortuary ceremonies focused on tombs, to the construction of unusual surface-level architectural complexes with concentric circular layouts. These distinctive Teuchitlán cultural tradition communities appear more politically centralized, and they endured until AD 600–900.

Late Preclassic Mesoamerica, 400 BC–AD 250

Despite the decline of the Gulf Coast Olmecs, the Late Preclassic period (400 BC–AD 250) saw the first great flowering in this region of what, by any standards, was a major world civilization. Fueling this florescence was rapid regional demographic growth. Lowland Maya populations burgeoned after about 400 BC, as witnessed by the many sites that yield their characteristic red-slipped Chicanel pottery, and population in the Basin of Mexico more than doubled between 300 BC and AD 100. Stimulated by such demographic changes, large polities with impressive centers became much more common. Some were the regal-ritual capitals of kings, but at least two of them – Monte Albán in Oaxaca and Teotihuacán in the Basin of Mexico – developed into the earliest true cities in Mesoamerica. Before turning to these political and urban transformations, however, we examine the evolution of Mesoamerican calendars, writing, and art, all of which emerged rapidly during the several centuries immediately following the demise of the Olmecs (a time sometimes called the Epi-Olmec period).
**KEY DISCOVERY** The Mesoamerican Calendar

The most widely shared of all Mesoamerican calendars tracked cycles of 260 days and 365 days. While the latter period closely approximates to the solar year, the former (referred to as the Sacred Almanac) does not correspond directly to any particular astronomical cycle. It is close to the human gestation period, but it might simply result from the permutation of the number 20 (Mesoamericans counted in increments of 20, rather than 10) and the 13 levels thought to comprise the heavens.

Calendrical notations were made using the vigesimal (base-20) system of counting, in which dots and bars signify, respectively, the numbers one and five. These signs could be combined to represent larger numbers, and the lowland Maya also had a symbol for zero and the concept of place, allowing them to express and accurately manipulate very large numbers.

Although there were many local variations of the two calendars, they generally worked as follows:

**260-day calendar** Each day was designated by a number from 1 to 13, and one of 20 names. The same designation thus repeated itself every 260 days (13 x 20).

**365-day calendar** Solar cycle days were designated by one of 20 day names and 18 month names, for a total of 360 days (20 x 18). To this was added a period of five days to bring the total close to the solar year.

**Calendar Round** Any given day had a "compound name" of four signs that resulted from the combination of designations from the 260- and 365-day calendars. If the calendars were conceptually meshed, this same day came around again only every 52 years, a long cycle called the Calendar Round. The reappearance of the conjointed days that signaled the beginning of the two subsidiary cycles was of great cosmological and ritual import.

**The Long Count** A third calendar, the Long Count (also called the Initial Series), tracked such a very long cycle that for all practical purposes it functioned as a linear count of time. Each day thus had a unique date, not one that repeated itself cyclically as in the other calendars. Although invented elsewhere, by Classic times (AD 250–800) it was used only by the lowland Maya, who perfected it. Like the Gregorian calendar in the West, the Long Count began on a specific day, on or about 11 August 3114 BC. To express a particular Long Count date the Maya began with the most basic unit, the day (called a "kin"), and then combined days into longer periods called "unins" (20 days), "tuns" (360 days), "Katun" (7200 days), and "Baktun" (144,000 days). There are even larger units, but these are the most fundamental ones.

Notice that the progression of units here is always by a factor of 20 except for the ton, which is not 400 as expected (20 x 20), but rather 360 (20 x 18), an accommodation Maya mathematicians probably introduced to better fit this unit to the length of the solar year. (Even so, Long Count reckonings accumulated an error of more than five days each year.) The "completions" of some of these periods, particularly Katuns, had great significance.

Full Long Count dates recorded on ancient Maya monuments consist of a sequence of numbers that expresses these units in order. For example, a date given as a sequence that runs 9 baktuns, 15 katuns, 6 tuns, 14 unins, and 6 kins indicates the collective number of days that has elapsed since the count began over 5000 years ago. This date corresponds to 1 May AD 738 in the modern calendar. According to the conventional notation used by Mayanists, such a date would be written 9.15.6.14.6, and the Maya would often have appended the corresponding Calendar Round date as well.

Because Long Count dates can be correlated with our current calendar, they provide archaeologists with a very precise chronological control.

Ancient Mesoamerican peoples employed all these calendars in very complex ways, using them to track the cycles of the sun, the moon,
Cycles recorded by calendars had great divinatory significance, and certain calendrical events were particularly important. For example, the cusp of a 52-year Calendar Round repetition was thought by the Aztecs to herald a moment of great danger for the world, and was attended by elaborate ceremonies and sacrifices.

Calendars and Writing

Various Olmec objects are embellished with signs that seem to prefigure mathematical, calendrical, or written symbols; calendrical glyphs appear slightly later. Working back from their knowledge of Classic Maya calendars, archaeologists long ago documented the Late Preclassic origins of the Long Count [see box: The Mesoamerican Calendar]. A monument discovered in 1939 at Tres Zapotes, deep in the Olmec heartland, yielded a Long Count date corresponding to 31 BC, recorded using the characteristic bar-and-dot signs common on later Classic monuments [Diehl 2000] [16.13]. Both the 260-day ritual and the 365-day solar calendars are probably much older. What might be an early calendrical notation in the 260-day cycle (apparently used as a personal name) is found on a carved stone slab [16.14] at San José Mogote (Marcus and Flannery 1996), possibly dating to just before the abandonment of that site c. 600–500 BC (some archaeologists think it is much later). Stelae at Monte Albán also have bar and dot numerals that might date as early 500–400 BC. Although the origins of the solar calendar remain more uncertain, it too was probably used in Epi-Olmec times.

Writing seems to have originated more than once in Mesoamerica. We know that its origins and spread were associated with several major groups of languages ancestral to those
still spoken today – Nahua, Maya, Mixe-Zoque, Mixtec, and Zapotec. In the early 16th century, all but Zapotec and Mixe-Zoque speakers still retained writing, although Maya literacy quickly succumbed to Spanish suppression. A problem in tracing the beginnings of these scripts is that all Mesoamerican writing systems made use of pictorial signs or glyphs. Only some of these, however, are true pictographs, while others might represent whole words or even syllables. Thus it is difficult to disentangle early true glyphs from other kinds of iconographic depictions that might precede or accompany them, or to know exactly what linguistic element an individual glyph conveys. Adding to this difficulty is the characteristic close association between art, calendrical notations, and writing. The earliest writing seems to have been used to convey very limited kinds of information, and probably was not as closely linked to speech as it was later (e.g., in Classic Maya inscriptions).

All Mesoamerican scripts were recorded in three basic media. Glyphs were carved or painted on stone stelae, altars,

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**KEY CONTROVERSY** Who Invented Mesoamerican Writing?

Most epigraphists define writing as systems of signs that record speech in visual form, although some prefer a broader definition that would include images or pictures less directly related to spoken language (Boone 2000). One reason for this disagreement is that although some scripts, and all Mesoamerican ones, consist of pictographic elements combined with signs that signify words or sounds, the exact mix differs from one script to another. Aztec (Nahuatl) writing emphasized the pictographic principle, and used many elements that had to be “decoded” into spoken words. Classic Maya writing, by contrast, was primarily logograms (i.e., glyphs directly represented words or sounds) and probably could have recorded any verbal utterance. Although writing has long been inappropriately bound up with our concepts of “civilization,” immense empires such as that of the Inca flourished without writing in the strict sense, and even very small and comparatively simple communities have maintained scripts, for example the Rongorongo inscriptions of Easter Islanders.

Nahuatl and Mixtec scripts used in the 16th century can still be read, and Maya writing has been largely deciphered. Ancient Zapotec inscriptions are still unreadable, however (apart from some calendrical labels and ruler names), as are some other early scripts, the linguistic affiliations of which remain uncertain. Fortunately, the close relationship of all ancient inscriptions to art, along with knowledge of their contexts, allows some reasonable interpretations. A case in point is Monument 3 at San José Mogote, in the Oaxaca Valley, which shows a slain captive with glyphs that might refer to his day-name in the 260-day ritual calendar [see 16.14]. Monument 3 could have been carved around 600 bc, and is thought by some to be a very early expression of Zapotec writing (Marcus 1992). Other epigraphists think that it is several centuries younger, contemporary with the hundreds of so-called “Danzante” carvings found at nearby Monte Albán. Each of these latter figures seems to show a slain and mutilated war captive accompanied by what might be his name glyph, or perhaps titles or toponyms (place-names). In any case, inscriptions are clearly very ancient in Oaxaca and plausibly record an ancient form of the Zapotec language.

**The Cascajal Inscription**

What might be an Olmec inscription comes from the site of Cascajal, near San Lorenzo, Vera Cruz, Mexico (Rodriguez et al. 2006). On one face of a serpentine block are carved 62 signs. Although the signs are unreadable and cannot be assigned to a particular language, they are arranged in a manner consistent with later written texts. The block was purportedly removed by local people from a partly destroyed mound that otherwise yielded materials dating to c. 1000–800 bc. If the date is correct, it is the oldest fragment of writing yet found in Mesoamerica, but because the context is not pristine, some archaeologists and epigraphists remain skeptical about its significance.

**The La Mojarra Stela**

Many archaeologists suspect that Mixe-Zoque speakers developed writing at least as early as the Zapotec did, building directly on earlier Olmec foundations. The Olmecs are thought to have transmitted their influence from the Gulf Coast across the Isthmus of Tehuantepec, and thence along the Pacific coastal strip where many early sculptures are known.

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16.15 The Cascajal monument, which might be as old as 900 bc, is carved with glyph-like signs. Although these cannot currently be deciphered, some epigraphists consider it to be Mesoamerica's oldest-known inscription, contemporary with the Olmecs.
thrones, tombs, building facades, and other architectural elements. They also embellished a host of small, portable objects such as ceramic vessels, jewelry, bones, and shells (and, undoubtedly, less durable items of cloth and wood). The longest inscriptions were painted in accordion-fold books called codices, made of bark paper or animal parchment pages sized with washes of lime plaster and enclosed in wooden covers. All the surviving Mesoamerican books that are still legible were made shortly before the arrival of the Spaniards, so archaeologists must rely on the other kinds of inscriptions to trace the origins of writing. This is a much-debated issue, in part because of a widespread, if wrong-headed, idea that the possession of a sophisticated writing system is a sine qua non of true civilization [see box: Who Invented Mesoamerican Writing?].

Although many historians, linguists, and anthropologists see an almost inevitable association between writing and the evolution of complex societies, patterns of the adoption, spread, and obsolescence of writing systems are actually quite variable.

16.16 The Epi-Olmec La Mojarra stela from the Mexican Gulf Coast has one of the longest early inscriptions. It includes two Long Count dates equivalent to AD 143 and 156.

16.17 Preclassic murals at San Bartolo in northern Guatemala depict Maya creation scenes; painted glyph panels, which cannot be read, prefigure later Classic glyph forms.

A puzzling monument from this 'Isthmian' tradition is the La Mojarra stela, retrieved from a river in Vera Cruz on the Gulf Coast. It depicts a ruler accompanied by a long inscription, including two Long Count dates equivalent to AD 143 and 156 (Diehl 2000). One provisional decipherment assigns the script to an early Mixe-Zoque language, but many epigraphists find this interpretation controversial. Still, if the La Mojarra stela is not a fake (as some archaeologists suspect), it is unquestionably early, and has a style of presentation and a set of themes similar to those found on later Maya stelae.

The Maya and Beyond
A few Maya inscriptions date to the Late Preclassic. Examples are the short texts recently discovered at San Bartolo in northern Guatemala, painted about 100 BC (Saturno et al. 2006). These cannot be read because of their archaic style, but one glyph appears similar to a later one that refers to king, lord or ruler. Although the lowland Maya eventually perfected Mesoamerica's most sophisticated script (Coe 1992; Houston et al. 2001), they did not invent writing, and for the present it is probably best not to try to assign the origins of Mesoamerican writing to any particular people, region, or time. Glyphs that resemble later Classic Maya inscriptions are found on El Portón Monument 1, erected around 400 BC in the Guatemalan highlands. Nearby, at Kaminaljuyú in the Valley of Guatemala, there are stelae with elaborate, undeciphered Late Preclassic texts (possibly independent of the Isthmian scripts) that plausibly record some Mayan language. The first proto-inscriptions in the Maya lowlands might result from contacts with these highland sources.

Writing did not take hold everywhere quickly, or at all — as was until recently believed to be the case at the great city of Teotihuacan [see The Teotihuacan Writing System box, p. 617]. Scores of impressively carved stelae at Izapa show extremely complex iconography c. 500–50 BC, but none has a date or inscription. The brief florescence of Late Preclassic writing at El Portón and Kaminaljuyú quickly faded away, with no subsequent inscriptions known in highland Guatemala. Still, however fragmentary and poorly understood the Preclassic corpus of inscriptions might be, some basic themes of later Mesoamerican writing are clearly present: rulership, war, and sacrifice, concern with gods and ancestors, and designations of titles, places, or dynasties.
The early and precocious “Isthmian” scripts of southeastern Mesoamerica flourished for a time in the Late Preclassic and then disappeared, as did another contemporary, but probably unrelated, short-lived script found on monuments at Kaminaljuyú, in highland Guatemala. Other scripts, such as Classic Maya and Zapotec, seem tied to specific communities and ethnic/linguistic groups, whose cultural and political decline they did not effectively survive. Late scripts such as that used by the Aztecs were more pictorial and less clearly tied to particular spoken languages. Although regarded by some as therefore more “primitive,” such scripts could be used by diverse linguistic/ethnic groups for precisely this reason, and so had a certain vigor.

Kings, Courts, and Cities

Writing, calendars, and monumental art are symptomatic of two more fundamental and closely related transformations in Late Preclassic Mesoamerican society: the rise of kingship, and the emergence of the first great urban centers and territorial states. There were powerful leaders or rulers in earlier times, but only during the Late Preclassic does a constellation of traits emerge that later came to characterize the institution of kingship. By far the best evidence of early kingship anywhere in Mesoamerica comes from the Maya lowlands, where large carved monuments exhibit royal portraits and dated inscriptions—our first certain glimpses of “historical” individuals. The Hauberg Stela (16.18), dedicated in AD 197, is the earliest generally legible one (although unfortunately looted, so its place of origin is unknown). It depicts a king nicknamed by scholars Bone Rabbit dressed as a rain god impersonator, and its general themes include autosacrifice, agricultural fertility, world renewal, and human sacrifice, all closely associated with later Maya rule and warfare (Newsome 2003). Such monuments became increasingly common after about AD 250, one reason why the Classic period threshold is placed at this time.

While Late Preclassic texts are rare and often ambiguous, the Classic Maya frequently inscribed retrospective texts on their monuments, recounting the names, titles, and deeds of much earlier kings. Such accounts, along with supporting archaeological evidence, enable epigraphists to trace the historical founders of several royal lines, most conspicuously Tikal’s back to about AD 100. Judging from the archaeological record, these well-documented founders were not the first Maya kings, though they appear to have been singled out because of their subsequent dynastic significance.

What might be royal burials occur in earlier contexts at Tikal and elsewhere. Even more suggestive of kingship are two huge centers that emerged in the Mirador basin of northern Guatemala in Late Preclassic times (Matheny 1986; Hanson 2005). Nakbé was settled c. 1000 BC by simple farmers. An astonishing burst of construction c. 400–200 BC produced buildings as high as 30–45 m (98–148 ft), and Nakbé’s sculptors created some of the first lowland Maya carvings, showing gorgeously attired human figures who might represent kings. Eclipsing Nakbé between about 200 BC and AD 150 was the even grander nearby center of El Mirador, where a vigorous tradition of stela-like monuments, accompanied by what appear to be glyphs, was present by around 200 BC. Nakbé and El Mirador are both good candidates for the seats of very ancient Maya kings, as are smaller, roughly contemporary centers such as Lamanai and particularly Cerros, in Belize, where elaborate temples have facade sculpture and inscriptions that prefigure later royal iconography, including the royal ajaw title.

More extensive excavation should eventually reveal the first elite residences, including royal palaces. The scale and complexity of construction of temples, ball courts, causeways, and other buildings at these sites suggests marked centralization of authority and an impressive capacity to organize communal labor.

Classic Maya rulership was closely associated with war, and unambiguous signs of large-scale conflict extend much farther.
KEY CONTROVERSY Metallurgy in Mesoamerica

Why did metallurgy develop so late in Mesoamerica, and why was metal use so markedly confined to nonutilitarian objects? These questions have long intrigued Mesoamerican archaeologists (Hosler 1988, 1994). Suitable mineral ores are admittedly scarce to the south and east of the Isthmus of Tehuantepec, but they are abundant in western Mexico, and New World peoples elsewhere showed considerable early sophistication in extracting and shaping metal for many purposes.

For centuries, chiefs in Panama, Costa Rica, and Colombia used precious metals, particularly gold, to make objects for display, trade, and grave offerings. To the south, in Ecuador and Peru, a spectacular tradition of metallurgy emerged before the time of Christ. Extraordinary objects of gold, silver, and copper were buried in elite tombs, such as those recently unearthed at Sipán on the northern Peruvian coast (see p. 657).

In stark contrast, the first intimations of metal use in Mesoamerica date back only to c. 600, with metal items—particularly small bells used as jewelry—becoming common over the next few centuries. The beginnings of this metalworking tradition are found in western Mexico, where the most accessible mineral sources are located.

Casting by the lost-wax method (in which a wax effigy is replaced by molten metal in a clay mold) might have been introduced by overland contact with Colombia. Metal artifacts are rarely found in the intervening Maya parts of Mesoamerica, however, although Maya artisans did make objects from sheet gold imported from Central America.

Long-distance Contacts?

Archaeologists have also long suspected that some sort of contact by sea with Ecuador or Peru introduced knowledge of metalworking. There are some striking similarities between aspects of the culture of the Central Andes and Mesoamerica, although no artifact from the former area has ever been found in the latter. For example, the highly distinctive “hairless” dog, a favorite food of Postclassic Mesoamerican peoples, was found in only two parts of the pre-Columbian New World: west and central Mexico and Ecuador. In addition, Tarascan ethnic dress shared strong similarities with that worn in Ecuador (Anawalt 1997). In any case, west Mexican peoples were the most accomplished Mesoamerican metal users, and metal objects of many kinds figured particularly in the political economy and ritual life of the Tarascans, the western neighbors (and enemies) of the Aztecs.

Postclassic Metal Use

Metals were used in many ways during Postclassic times. At Chichén Itzá, in northern Yucatán, the Maya threw gold into the Sacred Cenote as an offering to the gods, and Postclassic lords in the Valley of Oaxaca were buried with elaborate gold jewelry. More prosaically, thin axe-shaped copper objects served as a kind of currency in highland Mexico.

Tribute in gold dust was paid to the Aztec empire, where gold and silver were valued as the “excrement” of the Sun and Moon gods. Aztec expansion was partly geared to control mineral sources, one reason for friction with the Tarascans. High-status artisans transformed metal into ear ornaments, lip plugs, and other objects that signaled the social rank and office of their owners; other objects made of precious metal were probably used in ritual contexts.

Despite the sophistication of contemporary metalworking, few 16th-century people made much effective use of metal tools or weapons, although needles, awls, tweezers, and small cutting tools of copper or bronze (a copper-tin alloy) show up in excavations. Metal objects were instead appreciated for their colors and for the sounds that they made (associated with thunder, rain, and snakes), and for their rarity. Mesoamericans remained for all intents and purposes Stone Age people in utilitarian technological terms.

back in time. A possible Late Classic defensive wall has been mapped at El Mirador, and a ditch and parapet more than a km (1.25 miles) long, probably about the same age, partly surrounds the nearby center of Tintal. Better known is the huge system of earthworks at Becán, which was constructed at the end of the Late Preclassic. In addition, there is good osteological evidence for the ritual sacrifice of war captives that later features so prominently in Classic Maya art, and trophy heads seem to be portrayed on some early monuments. War is probably implied by the three severed bodies shown on the Hauberg Stela, and possibly by mass Late Preclassic Maya sacrifices found at Cuello, in northern Belize (Hammond 1999).

Some archaeologists believe that the roots of lowland Maya kingship and royal display lie in the artistic traditions of the Epi-Olmeç cultures, particularly in the Guatemalan highlands at Kaminaljuyú, where Late Preclassic rulers were buried in extravagant tombs with scores of vessels and other costly offerings, as well as sacrificial victims.
Monte Albán  Impressive as all these Maya developments are, even more striking transformations took place in the Valley of Oaxaca and the Basin of Mexico, where the first great cities emerged in Late Preclassic times. Although neither art nor texts reveal much about kingship in these regions, vigorous royal dynasties were no doubt integral to this process of urbanization.

San José Mogote, for centuries the largest center in the Valley of Oaxaca, was abandoned by all but a few farmers around 500 BC. By that time there were several nearby independent polities, and there is evidence that enemies burned some of San José Mogote's buildings; there is also evidence for newly built defensive systems in the southern arm of the valley at around the same time. Apparently, competition stimulated the sudden founding in c. 500 BC of the Zapotec city of Monte Albán on a previously uninhabited mesa (a high, flat-topped hill) in the central part of the valley; the settlement was a defensible center from which a powerful confederation of communities embarked on the unification of the entire region (Blanton et al. 1993; Marcus and Flannery 1996). Shortly afterwards, the Danzante warrior frieze - so-called because the figures were once thought to represent dancers, but which are now thought to depict slain enemy captives - was erected, again suggestive of warfare [16.20].

Monte Albán's subsequent growth was dramatic. By 200 BC its hillsides were packed with more than 17,000 people, while the summit was crowned with a complex set of acropolis buildings, including elite residences, and carved stelae with dates. The whole conglomeration covered an area of about 6 sq. km (2.3 sq. miles), and scores of smaller settlements clustered around the new capital. Outside this ring of settlements were more distant ones, many fortified, attesting to still unstable conditions. Productive local irrigation systems contributed heavily to the subsistence economy.

Between 200 BC and AD 100 the top of the Monte Albán mesa was leveled off, and a new, grand design of buildings was laid out. Although much of this early architecture is today buried under later phases of construction, we know that the new arrangement included a ball court, about 20 temples where offerings were made to sky gods and other deities, huge palace-like residences built of adobe ( unbaked clay) bricks, and elite chamber tombs. At this time the entire population of the Valley of Oaxaca totaled some 41,000 people, living in 518 settlements that exhibited several levels of size and complexity, a pattern often associated with early territorial states. Impressive outlying communities (including a resurgent San José Mogote) were probably administrative centers under Monte Albán's control. Some, such as Dainzu, possessed their own ball courts, which were potent political symbols. Unification of the whole Valley of Oaxaca entailed considerable human cost however; there was a decline of about 20 percent of its population compared to the previous period.

The Monte Albán urban state might have controlled far more distant areas at this time as well. Over 40 so-called "conquest slabs" associated with Building J in the great plaza of the
city are carved with what seem to be place glyphs or political toponyms. Some archaeologists think that these represent distant polities conquered or otherwise subject to Monte Albán, although the glyphs might refer to places within the Valley of Oaxaca itself. In any case, a centralized and expansive Zapotec state was clearly present by the end of the Preclassic.

Teotihuacán The ancient Basin of Mexico environment had two main attractions for early agriculturalists: an extensive lake system with an abundance of aquatic resources, and fertile volcanic soils (Sanders et al. 1979). Nevertheless, farmers colonized the region fairly late—around 1600 BC—partly because they had to adapt their tropical crops to the high (over 2240 m, or 7349 ft) cold environment. About 10,000 people lived there in small communities when the Olmecs began carving monuments at San Lorenzo on the Gulf Coast, around 1200 BC; by the time the Early “Olmec” Horizon ended c. 400 BC, the population of the Basin of Mexico had increased to around 80,000. There were five or six large polities with emergent capitals dominated by pyramid mounds, chief among which was Cuicuilco, with its distinctive circular pyramid, located in the comparatively humid southwestern part of the Basin.

Hardly any farmers lived in the much drier Teotihuacán Valley to the northeast. Then, during a period of rapid population growth between 300 and 100 BC, this formerly marginal northern zone was heavily colonized, and Teotihuacán suddenly emerged as a huge urban center with 20,000 to 40,000 people. A century later it had burgeoned to 60,000 people in an area covering 15–20 sq. km (6–8 sq. miles). This remarkable growth was partly accomplished by attracting or otherwise concentrating 80–90 percent of the entire population of the Basin within the city’s limits, and by eliminating all the other polities.

After about 400 BC eruptions of Xitle, a small volcano near Cuicuilco, and the much larger Popocatepetl on the eastern margin of the Basin of Mexico greatly unsettled the southern basin and parts of the adjoining Puebla-Tlaxcala region. (Two of Mesoamerica’s major deposits of obsidian, a volcanic glass, are in or near the Teotihuacán Valley, including the source of the widely traded, greenish-gold Pachuca obsidian.) Quite possibly, many people displaced by these catastrophes migrated to Teotihuacán.

As at Monte Albán, Teotihuacán’s rapid rise and its reordering of regional settlement seem to be associated with a check to the previous pattern of demographic growth in the Basin of Mexico. Whether warfare was part of this process of urbanization, as in the Valley of Oaxaca, is unknown. Whatever the cause, Teotihuacán was incomparably the largest city in the New World. Equally remarkable was the immense construction program that started at the beginning of the 1st millennium AD and created the ceremonial core of the city over the next 350 years, including the imposing pyramids of the Sun and the Moon [see box: Teotihuacán, pp. 614–15]. Most unusual, and in striking contrast to the situation in Oaxaca, is the paucity of settlements outside the city proper, particularly in the formerly heavily occupied and well-watered southern parts of the Basin of Mexico. Most of the people who lived at Teotihuacán must have been part-time farmers who lived in the city, but who cultivated fields a considerable distance away. The city depended heavily on a huge irrigation system watered by copious local springs and seasonal streams, all within about a day’s walk.

We do not know the ethno-linguistic identity of the Teotihuacanos, because we have no written texts comparable to those available for the Maya [see box: The Teotihuacán Writing System, p. 617]. Indeed, until the 1940s, archaeologists thought that Teotihuacán was no older than the 14th century, or immediately pre-Aztec. The Aztecs (who lived a millennium later) revered the older city as a sacred place where the world had been created, and it was they who gave it its name, which in Nahuatl means something like “place where the gods live.” They also christened the Street of the Dead and the pyramids of the Sun and the Moon.

A widespread Mesoamerican belief features a great mythical metropolis, inhabited by prosperous and accomplished people and ruled by benevolent priests and kings, representing an ideal human condition to be recreated in the present world. The Aztecs called this idyllic, enchanted city Tollan, which literally means “place of the rushes,” signifying a populous place. For a long time scholars thought that Teotihuacán was the Tollan of the Aztecs, but we now know that the Aztec Tollan was actually Tula, a site to the north of the Basin of Mexico. Belief in Tollan long predates Tula and the Aztecs, however, so there was not just one such utopia. Quite possibly the first Tollan in the Mesoamerican imagination was someplace like La Venta, but the dominance of Teotihuacán during the Early Classic period probably made it a Tollan in its own right.

The Classic Period: Teotihuacán and its Neighbors

During its initial rise to power, Teotihuacán directly controlled the Basin of Mexico; some archaeologists believe it also governed a much larger region of about 25,000 sq. km (9653 sq. miles) in the neighboring highlands to the east and south. Such a core polity might have had roughly 500,000–750,000 Early Classic inhabitants. But the city’s influence reached far beyond central Mexico, especially between the 4th and 6th centuries AD. Many archaeologists call this interval the Middle Horizon because evidence of Teotihuacán’s contacts is so pervasive throughout Mesoamerica.
KEY SITE Teotihuacán

Teotihuacán reached the peak of its power and influence between the 4th and 6th centuries AD, when its estimated 125,000 inhabitants made it one of the largest urban places anywhere in the world (Berrin and Pasztor 1993). Unlike many other ancient cities, its remains have not been buried or heavily destroyed by subsequent activity, and so are very accessible to archaeologists. What visitors see today are mainly the ruins of Teotihuacán as it existed sometime in the 7th and 8th centuries AD, but there was a long sequence of earlier development.

The Ceremonial Core

Late Preclassic occupation seems to have been concentrated in the northwest sector of the site, but Classic Teotihuacán eventually sprawled over about 22 sq. km (8.5 sq. miles). Its ceremonial backbone is the Street of the Dead, the northern parts of which were laid out around the beginning of the 1st millennium AD, along with the first stage of the Pyramid of the Moon which stands at the northern terminus.

16.21, 16.22 Plan (left) and view (below) of the ceremonial core of Teotihuacán. The view is from the Pyramid of the Moon looking south down the Street of the Dead, with the Pyramid of the Sun on the left. Unlike most archaeological sites, Teotihuacán was not buried or destroyed in subsequent ages.

16.23 (Opposite above) The Temple of the Feathered Serpent is one of the few buildings at Teotihuacán with impressive facade sculptures.

16.24 (Opposite below) This example of Teotihuacán mural art shows a gorgeously attired female deity with water dripping from her hair.
Roughly a century later, construction started on the immense Pyramid of the Sun, a west-facing building erected over an artificial sacred cave. Completed in two main stages over the next 30 years, it was as large at the base as the Great Pyramid of Khufu in Egypt (Chapter 10), and even without its summit temple it still stands 63 m (207 ft) high.

The Street of the Dead was later extended farther to the south, and along its western side was erected an immense enclosure, 440 m (1444 ft) on a side, later called the Ciudadela (“Citadel”) by the Spaniards. Within it sits the Pyramid of the Feathered Serpent, famous for its many associated sacrificial victims. On the other side of the street is the even larger complex called the Great Compound, which was probably the principal marketplace.

Completion of these southern projects around AD 250, along with the final enlargements of the Pyramid of the Moon c. AD 350, completed this immense ceremonial zone. Today these grand streets and buildings strike visitors as rather plain, because, with the exception of the Pyramid of the Feathered Serpent, architectural sculpture was not emphasized at Teotihuacan. Instead, the plaster surfaces of the buildings were brightly painted with polychrome murals, only fragments of which remain. Surprisingly, no ball court has been found on the site, although we know the game was played there – from depictions in paintings – probably in some suitable but informal open space.

The Residential Layout
At about the same time the Ciudadela was finished, there was a vast and apparently coordinated reorganization of Teotihuacan’s residences, resulting in a grid-like arrangement of rectangular house compounds aligned along narrow streets or alleys. This shift in the residential layout of the city is so profound that many archaeologists think it reflects a period of internal political and social upheaval. At the very least, it must have been centrally planned and organized. Within the new grid were erected many solidly built stone apartment complexes surrounded by walls.

Recent work by Mexican archaeologists in “vacant” parts of the city have revealed more modest, apparently unoccupied, house groups that were simply oriented to conform to the grid alignment. If this almost invisible universe of residences proves to be widespread at Teotihuacan, then we will have to revise population estimates upward.

Apartment Compounds
Some 2000 “apartment” compounds have been mapped. Inside most of them were complexes of residential rooms and courtyards that housed the city’s inhabitants. Only a few of these compounds have been systematically excavated, revealing kitchens, storerooms, patios, shrines, dense deposits of domestic refuse, and numerous sub-floor burials. A few have elaborate courtyard shrines that cover the rich burials of adult males, who possibly represent revered ancestors. Each compound housed up to 100 people, and even the smaller ones had facilities for four to six families. Some have spacious and comfortable layouts, while others are cramped and barracks-like. Most were solidly built of plastered masonry, roofed with wooden beams, and had well-engineered drains. A few compounds are so elaborate and beautifully decorated that they deserve to be called palaces; at the other extreme are shoddy adobe residences.

All this variation among the internal features of the compounds is difficult to explain simply on the basis of differences in rank and organization among families, and many compounds might have had quite specialized functions that we do not yet understand. Clearly, however, many Teotihuacanos lived in social groups larger than the nuclear family, and just as clearly there was great variation in status and wealth among the inhabitants.
The Middle Horizon appears to coincide with Teotihuacán’s mature urban phase (Berrin and Pasztory 1993). Not only did the city have a population of at least 125,000, but a surprising number of the apartment compounds show evidence of some sort of specialized economic activity. Most conspicuous is the manufacture of obsidian implements, some intended for export, others used locally as tools. Other workshops made ceramic vessels, grinding stones, shell objects, jewelry, and pottery, and no doubt numerous items of wood, fiber, and feathers that have left few archaeological traces. Presumably, many of these specialized products were exchanged in urban marketplaces, particularly at the Great Compound, the city’s principal market.

Even in earlier, Late Preclassic times, Teotihuacán was a cosmopolitan place. Sherds of Chichén pottery from the Maya lowlands dating to the 1st century AD have been found in deposits near the Pyramid of the Sun, and later evidence suggests that people from western Mexico, the Gulf Coast, and the Valley of Oaxaca not only visited the city, but actually lived there in special residential enclaves. Some of these residents were artisans, others probably merchants. The so-called Merchants’ Barrio in the eastern zone of the city has the highest concentration of foreign pottery known anywhere at Teotihuacán, along with a set of distinctive round buildings that some archaeologists identify as residences, but which are probably storehouses. Cotton, cinnamon (a mineral used as a pigment), textiles, and feathers all might have been brought there from tropical regions to the east and southeast. Most resident foreigners were probably of rather low status, but one epigraphist suggests that the Tetitla compound, the murals from which show many exotic influences, was a kind of international clearinghouse for nobles, ambassadors, or other high-ranking visitors (Taub 2000).

We know very little about the social and political structure of Classic Teotihuacán, largely because of the lack of comprehensible inscriptions. Nor are the murals much help, because Teotihuacán art does not emphasize royalty, as Classic Maya art does—in- stead they mainly depict deities, fantastic animals, and abstract and repetitive designs. Moreover, virtually all the murals postdate the vast reorganization of the city’s residential plan c. AD 250, and so do not reveal much about organization during the early period of rapid urban growth and monument construction.

For a long time there was a puzzling lack of elaborate tombs at Teotihuacán, though several spectacular ones were discovered in the 1990s. Buried beneath the Pyramid of the Feathered Serpent are the looted remains of at least one major tomb, along with some 40 sacrificial victims. The pyramid seems to have been built to cover this central set of interments. Scores of other sacrificed victims, mostly men of military age accompanied by weapons and war regalia, along with some women, were placed in shallow trenches beneath and around the pyramid as it was completed. Studies of bone isotope signatures reveal that most of these people were natives of distant places, or at least had lived elsewhere for long periods. They were probably not captives, and if they represent a cross-section of Teotihuacán’s armed forces then recruitment must have been very broad. The Feathered Serpent tomb was very publicly looted some time after AD 250. Most of its sculpture was stripped away, and its front facade was buried beneath a later pyramid, signaling internal troubles and perhaps a new regime that emphasized more collective and impersonal leadership.

Since 2000, several other rich burials have been excavated from the later construction stages of the Pyramid of the Moon (Sugiyama 2007). All these impressive mortuary episodes date to AD 150–350 and may indicate the presence of powerful rulers and a well-established institution of early kingship, although most of the interred individuals appear to be sacrifices.

Whoever made the political decisions at Teotihuacán would have required administrative facilities, probably combined, in good Mesoamerican fashion, with palatial residences. Some archaeologists believe these functions were concentrated in sets of buildings within the Ciudadela, just to the east of the Pyramid of the Feathered Serpent. This might have been the original royal compound, but William Sanders (1972) thinks it later shifted to the huge Street of the Dead Complex, a walled section of the city’s core just to the northwest of the Ciudadela.

Teotihuacán’s Wider Influence: The Middle Horizon

On 15 January AD 378, a dramatic event occurred at the Classic Maya center of Tikal, in northern Guatemala, some 1000 km (621 miles) distant from Teotihuacán. A lord named Siyaj K’ak’ arrived there, his approach recorded eight days earlier at the site of El Peru. On the same day, the incumbent Tikal king seems to have died, or at any rate is heard from no longer (Stuart 2006). Siyaj K’ak’ had strong connections to Teotihuacán and might even have come from that great northern metropolis. His name is also recorded on monuments at other centers, suggesting that his prestige and influence were widespread.

The following year, the son of one of Siyaj K’ak’s entourage was enthroned as Tikal’s king. Half a century later, something very similar happened far away on the southeastern frontier of the Maya lowlands, where Copán’s dynastic founder, Yax Kuk Mo, also arrived as an outsider with some sort of relationship to Teotihuacán. Long before these political intrusions, around AD 250–300, Teotihuacán materials, including Pachuca obsidian, were interred with a burial at Altun Ha in northern Belize. Teotihuacán might even have been implicated in the troubles that resulted in the construction of the Becán fortifications at the end of the Preclassic period, mentioned above. Nor was Teotihuacán’s influence in the Maya lowlands only political and military. Central Mexican iconography became important to
KEY CONTROVERSY The Teotihuacán Writing System

Until very recently many scholars believed that Teotihuacán had no tradition of writing, despite the fact that it was incomparably the most dynamic and culturally dominant center in all of Classic Mesoamerica, where writing was widely used. Teotihuacano nobles, soldiers, and traders certainly knew about the existence of writing in Oaxaca, the Maya lowlands, and elsewhere, so how could one account for its apparent absence at the city itself? One possibility is that Teotihuacanos wrote, but on some completely perishable medium. Still, one would expect at least fragments to survive.

Recent Discoveries
Numerals and glyph-like signs appear in Teotihuacán murals, but these do not occur as long inscriptions and could not be deciphered. Recently, however, Mexican archaeologists found 42 obvious glyphic signs painted in red on the floor of a patio nicknamed the Plaza de los Glifos in the walled La Ventilla compound (Taube 2000). These glyphs were arranged singly, though occasionally they occurred together, in a grid of red lines reminiscent of the layout of 16th-century codices, particularly that of Aztec tribute lists.

One epigraphist recognized that there were two styles of writing, or "fonts" at Teotihuacán—one condensed and simple, as at the Plaza de los Glifos, and a second consisting of very large and elaborate emblematic glyphs. Many of the mural arrangements can potentially be read as texts, and armed with this new perspective, epigraphists are beginning to identify toponym signs, as well as short labels that seem to give the names or titles of associated human figures.

Overview
It appears increasingly likely that Teotihuacán had a well-developed writing system, and that its emblematic expression or "font" was particularly suited to large mural presentation. While similar in some ways to Mixtec and Classic Maya inscriptions, the Teotihuacán system had many distinctive elements, some of which prefigure later Aztec writing. Such a resemblance is particularly significant because the origins of Aztec writing remain obscure, as does the ethno-linguistic identity of Teotihuacán's inhabitants and those of the larger Basin of Mexico.

Quite possibly, Aztec writing had its roots at Classic Teotihuacán, where people might have spoken an ancient form of the Nahua language. On the other hand, if some non-Nahua language was widely spoken in Classic times, what happened to this population? Was it displaced by northern Nahua-speaking migrants during Postclassic times, or do these late migrations represent just a final phase of movements of Nahua people into the region?
**KEY SITE** Classic Monte Albán

Monte Albán takes its name from a Spaniard who once owned the land on which the site sits. Its original Zapotec name is unknown, but may have been something like "Hill of the Tiger." The city attained its peak early during the Late Preclassic (Blanton et al. 1993); its urban population subsequently declined slightly, and other communities in the Valley of Oaxaca asserted more autonomy. Actual conflict is suggested by the construction of the first of a series of impressive defensive walls protecting vulnerable points around the lower slopes of the hills.

Monte Albán's rulers still exerted control over distant areas to the north, however, and the city as we know it today assumed its basic form in Classic times, between AD 300 and 700. Some 2,000 terraces were constructed on the slopes of the hill to accommodate the city's growing population. Nearly 3,000 separate residences have been mapped on these terraces, most of them quite simple, consisting of several adobe structures arranged around a courtyard. Some 57 others are unusually elaborate, and might be elite houses. Interestingly, far less evidence for basic commodity production has been found in Monte Albán's residences than in contemporaneous Teotihuacán, although ceramic kilns are associated with some houses.

**The Main Plaza**

Monte Albán's rulers and highest elites occupied the summit of the hill, which remained rather isolated from the rest of the community and difficult of access. We cannot read their inscriptions (some names and dates excepted), but monuments in the Main Plaza, as well as in elaborate tombs, show rulers' accessions to power, their military victories, and royal ancestors or relatives. Some also depict personages dressed in Teotihuacán style, interpreted as diplomats or ambassadors.

Architecture around the Main Plaza assumed an extremely monumental and integrated form. This huge space, some 300 m (984 ft) long, was delineated on its northern and southern ends by two enormous platforms, and along its east and west sides by lines of smaller temples and a compact ball court. The North Platform was a gigantic palace complex, where Monte Albán's royal family lived amid the administrative and ritual facilities essential to their rule; elaborate tombs with carved and painted chambers lay beneath the floors.

**Decline**

By AD 700 Monte Albán's population had probably reached 25,000 people. About that time a severe decline is signaled by cessation of large-scale construction and much reduced ritual activity in the Main Plaza. Like Teotihuacán, the city was not permanently deserted, and thousands of people continued to live on the residential terraces. Nevertheless, it never regained its former dominance of the Valley of Oaxaca. In Postclassic times, many small Zapotec and Mixtec kingdoms coexisted uneasily in and around the Valley of Oaxaca, until the Aztecs established their own hegemony there in the 15th century.
Although Teotihuacán's power mainly extended south and east, it reached to the north as well. Around AD 400–450, at the hitherto modest center of Alta Vista, far away in northwest Mexico, construction projects at the site core incorporated typical Teotihuacán architectural elements, along with a new innovation: skull racks hung with the remains of sacrificial victims. As at a number of other sites, artifacts at Alta Vista display both Teotihuacán and more local features, and some archaeologists think Teotihuacanos actually migrated there. Around AD 850 some of the principal buildings were burned and demolished; scattered human remains also attest to some sort of violence.

Many more such examples could be given, but what does it all mean? Few archaeologists believe that Teotihuacán had an empire achieved through conquest like the Aztecs’ centuries later. Quasi-military intrusions as at Tikal, and possibly at Kaminaljuyú or Becán, might instead reflect the opportunistic activities of noble Teotihuacán factions detached from their homeland by political events – a process very evident in later Mesoamerican ethnohistoric accounts. Undoubtedly, trade and commerce were fundamental to much of this Middle Horizon interaction, but in the absence of historical records we do not know if it involved professional merchants like the later Aztec pochteca. Outright colonization of strategic locales such as the Tuxtla Mountains seems very likely, and we cannot discount more intangible kinds of cultural influence, as reflected in the
adoption of Teotihuacán dress, weapons, political and military imagery, and ritual. Teotihuacán might have been a pilgrimage center for many Classic people, and for others it no doubt seemed a wonderful, distant metropolis, probably coming to represent one of the several imagined Tollans.

**Cholula, Cantona, and the Teuchitlan Cultural Tradition — Independent Polities?**

Teotihuacán's influence was by no means present everywhere, however, nor did it lack competitors. As yet unclear are its relations with *Cholula*, a contemporary Classic city located in the fertile agricultural landscape of neighboring Puebla. Cholula's remains are blanketed by modern urban sprawl, so it is not well known archaeologically. With an estimated 30,000–40,000 people, it was much smaller than its giant neighbor, but its main pyramid grew by accretion to become the largest structure in the New World. Although its architecture shared some similarities with that of Teotihuacán, in other ways Cholula retained its own cultural identity and survived as a major highland center until the Spaniards arrived.

Even more intriguing is *Cantona*, a unique Classic center 190 km (118 miles) due east of Teotihuacán, which archaeologists are just beginning to investigate (Cook 1998). The sprawling 14 sq. km (5.4 sq. mile) city is located in a badlands zone with little agricultural potential, a locale so inhospitable that the Spaniards called it the Gran Despoblado ("Great Wilderness"). There are, however, nearby fertile valleys and several major obsidian sources. Cantona boasts many workshops and an astounding 25 ball courts, some of which are parts of larger complexes that include extensive plazas and possible elite residences. Low walls enclose stone platforms that probably supported light, perishable superstructures, an unusual form of construction given the elevation of well over 2000 m (6562 ft). Established at least by AD 100, one estimate (almost certainly too high) puts its peak population at 90,000 in the centuries from about AD 600 to 900, when Teotihuacán was in decline.

Cantona seems to share remarkably few architectural features with Teotihuacán, and has its own distinctive ceramic tradition. Unlike other centers of comparable size, it lacks monumental sculpture or other surviving symbolic statements of ritual or political power (ball courts aside). Well situated to dominate trade between the central Mexican highlands and the Gulf Coast, Cantona probably exchanged obsidian and other commodities. Its local microenvironment is ideal for growing agave, an extremely important plant that produced fiber and the mildly alcoholic drink *pulque*, both mainstays of the highland economy from early times. One possibility is that Cantona was a highly specialized outpost established by El TAJIN (see below) or some other Classic polity, and that a large population lived there only seasonally, when intense production activities were carried out.

Further afield, western Mexico continued to develop in its own distinctive fashion, as exemplified by remains of the *Teuchitlan cultural tradition* (Weigand 2001b). Between AD 400 and 700, clusters of elaborate shaft tombs were associated with local polities dominated by hierarchies of impressive centers. Each sub-region was distinguished by its own somewhat different ceramic, figurine, and tomb styles. At the cores of the biggest Teuchitlan sites were monumental circular buildings and sets of ball courts, one of which is 130 m (426 ft) long. One huge habitation zone has thousands of residential compounds interspersed with obsidian, ceramic, shell, and stone workshops, all scattered over an area of 2.5 sq. km (1 sq. mile). Teuchitlan people built complex systems of drained fields and canals to utilize the many swamps and lakes of the region, and these prefigure the famous *chinampas* (artificial fields constructed in a shallow lakebed) that later supported the dense Aztec populations of the Basin of Mexico. Also distinctive of western Mexico was the emergence c. AD 600 of a metallurgical tradition that developed during the following centuries [see Metallurgy in Mesoamerica box, p. 611].

**The Demise of Teotihuacán**

For many years it was thought that Teotihuacán collapsed as a major power around AD 700–750 (Millon 1988). Violence was implicated, because archaeologists detected extensive burning and deliberate destruction of temples and other buildings along the Street of the Dead, in the Ciudadela, and elsewhere. Just who was responsible is unknown. No neighboring polities seem strong enough to be likely candidates, nor are clear signs of invading foreign enemies reflected in pottery or other artifacts.

An alternative possibility is some internal, factional conflict that destroyed the major symbols and facilities of traditional rule. This latter explanation gains plausibility because we know that on at least two earlier occasions Teotihuacán experienced internal crises: c. AD 250, when the city's residential layout was dramatically reorganized; and slightly later, when the Pyramid of the Feathered Serpent was so openly looted and its tombs despoiled (Sugiyama 1998). Whatever ultimately happened not only caused political and social upheaval, but also the disappearance of a religious and ideological order that had long integrated much of Mesoamerica.

The traditional timing of Teotihuacán's demise was convenient because it offered one possible trigger for the slightly later collapse of Classic Maya society (discussed below). More recently, however, the Teotihuacán catastrophe has been pushed back in time. Teotihuacán's strongest external influences seem to peak early, c. AD 250–500, and there is evidence from archaeomagnetic dates (based on correlating the magnetic direction of iron particles in baked clay structures such as kilns and hearths to known variations in the earth's magnetic
direction) that the destruction and burning of the city might have taken place as early as AD 500–550. Quite possibly, Teotihuacán was a spent force by the early to mid-6th century AD, although its reputation haunted the Mesoamerican imagination long thereafter.

Archaeologists disagree about whether or not the city was abandoned for a short time, but Teotihuacán never permanently lost its urban population. Some 30,000–40,000 people continued to live in urban enclaves around the old ceremonial core, and many well-established communities elsewhere in the Basin of Mexico continued to thrive. As late as the 16th century, Teotihuacán remained the center of a city-state with its own resident king and about 10,000 inhabitants.

Epiclassic Mesoamerica, AD 600–900

Monte Albán was too weak to fill the political vacuum created by Teotihuacán’s collapse. Instead, a series of local centers and polities rose to become regional powers during what is called the Epiclassic period, a chronological label mainly applied to that part of Mesoamerica west of the Isthmus of Tehuantepec and dated there to AD 600–900. Cantona, as already noted, seems to have prospered, possibly in tandem with El Tajín [16.31], a major center in Vera Cruz on the Gulf Coast lowlands that might have been its trading partner. Closer to the old Teotihuacán heartland, two other upstart centers also flourished for a time. Near Cholula is Cacaxtla, a hillside site with a huge, palace-like complex of buildings protected by a dry moat (McVicker 1985). Built over many stages, Cacaxtla, along with a nearby ceremonial complex called Xochitecatl, dominated the fertile Puebla-Tlaxcala Valley and its important trade routes during much of the period between AD 650 and 900. Its resident population was small, perhaps 10,000 people, but its buildings are famous for their polychrome murals depicting military confrontations between groups with central highland (including some Teotihuacán-related) costumes and regalia, and others with distinctly Maya characteristics. Cholula was probably defeated by warriors from Cacaxtla, but still survived as a considerable urban center in its own right.

About 25 km (15.5 miles) southwest of modern Cuernavaca lies Xochicalco, the best known of all Epiclassic sites and roughly contemporary with Cacaxtla (Hirth 2000). Large architectural complexes crown five separate hills, one of which is much more impressive than the others. This hilltop location seems to have been chosen mainly with an eye to defense, because the surrounding landscape has poor agricultural potential. The core of the community was heavily protected by earthworks, ramparts, and terraces. Much of the population of 10,000 to 15,000 people lived in residential neighborhoods on terraces on the hillsides. Excavations have revealed evidence of complex economic activities, including long-range trade, craft production, and internal market exchange. Carvings on the Pyramid of the Plumed Serpent show warriors and what appear to be toponyms representing outlying towns that paid tribute to Xochicalco [16.32, 16.33]. Several stelae are incised with name glyphs of kings—among the earliest known for central Mexico. Sometime around
AD 900 the site was suddenly and violently destroyed by unknown enemies, and never subsequently reoccupied.

Far away in northern Mexico, just inside the geographical limits of Mesoamerica proper, lies La Quemada, another hilltop center of Epiclassic date. While the main community is small, it is quite complex, with artificial terraces, numerous residential patio complexes, temple and palace-like structures, and ball courts, all protected by a defensive wall. Archaeologists have unearthed unusual concentrations of cut, broken, and burned human bones, along with clear evidence that human skeletons were displayed in some buildings, perhaps as war trophies.

Clearly, the centuries after Teotihuacán’s fall from power were violent ones in the Mexican highlands, though none of Teotihuacán’s squabbling successor states was strong enough to reestablish the order and prosperity of the old Classic system. The greatest eventual beneficiary of the decline of Teotihuacán was Tula, founded after AD 700 some 80 km (50 miles) to the northwest; from this beginning emerged the huge Postclassic city destined to become the legendary Tollan of the later Aztecs.

The Classic Maya

By far the best known of all Mesoamerican cultures is that of the lowland Maya, both because it has attracted an inordinate amount of archaeological attention, and because we have long been able to understand its complex calendars and its texts (Sharer 1994; Grube 2001; Coe 2005).

The early sophistication evident at Nakbé, El Mirador, Tikal, and other Maya sites matured over a region in the Yucatán Peninsula of roughly 350,000 sq. km (96,530 sq. miles), or about the same size as Great Britain or the state of Colorado. Most of this landscape has comparatively little relief and is hotter and more humid than the Mesoamerican highlands. There are marked wet and dry seasons, natural vegetation is distinctly tropical, and large rivers or streams are rare. After a widespread Late Preclassic crisis, the distinctive markers of the Classic Maya tradition spread very widely – in particular altars and stelae carved with royal and ritual statements – enabling epigraphists and archaeologists to chart a network of interacting kingdoms (Martin and Grube 2008). These phenomena most strongly affected the southern lowlands; societies in northern Yucatán developed in somewhat different ways.

Early Classic (AD 250–600) inscriptions and art are less abundant and informative than those of the Late Classic, but many of the latter are retrospective, helping us to understand

16.32, 16.33 Epiclassic Xochicalco: carvings on the Pyramid of the Plumed Serpent (below) depicted warriors and toponyms of towns; the open mouth in the glyph (left) might relate to tribute.
the political dynamics of earlier times and the evolving institution of kingship. We have already seen that during the Early Classic, Teotihuacán had a direct hand in the fortunes of some dynasties, particularly Tikal's. By the early 6th century AD, Tikal was a Maya superpower in its own right, and head of a coalition embroiled in protracted struggles with another great alliance led by the rulers of Calakmul. All this mayhem ushered in a period of Early Classic population decline and political crisis sometimes called the "Hiatus." Some previously vigorous centers, such as Piedras Negras and Tikal, did not raise royal monuments for much of the 6th and 7th centuries AD. Other polities, including Caracol and Copán, continued to prosper, however, so this crisis was by no means universal. Nevertheless, it did stimulate considerable reorganization of Maya society and culture. Maya monuments after AD 600 presented kings in more highly personalized ways, attributed new titles to them and to subsidiary lords, and increasingly emphasized warfare.

All this conflict served as a prelude to the great flowering of Late Classic Maya society between AD 700 and 800, a period for which we have unprecedented information. The Maya are the only Classic-period Mesoamericans who have left a corpus of intelligible inscriptions that can be assembled into something like an indigenous historical record. About 15,000 texts have been recovered, some carved or painted on monuments or buildings, but most recorded on smaller objects such as pottery vessels [16.34] that were used in palaces or elite residences, or placed in tombs; no Classic books have survived intact. All the texts seem to have been written in an archaic, courtly Maya language that functioned somewhat like Latin in medieval Europe (Houston et al. 2000). In combination with associated architecture and art, these texts convey rich information about the elite of Maya society, including names and titles of rulers and lords, gods and ancestors, emblems of dynasties and polities, and toponyms, as well as specific events such as births, deaths, accessions, wars, rituals, and alliances. Linked to many texts are calendrical notations in traditional Mesoamerican cyclical calendars, and, most importantly, the Long Count, in which each day, for all practical purposes, is unique [see The Mesoamerican Calendar box, pp. 606–07]. Such chronological precision allows us to place sequences of real events in their proper order.

Unfortunately, Maya inscriptions are not found at all sites, and they become common only after about AD 600. Nor do they tell us much about the size of polities, the details of social and political organization, or economic institutions or behaviors. Particularly lacking is any information about the lives of common people. Nevertheless, in conjunction with archaeological evidence, the texts allow us to reconstruct many aspects of Classic Maya life.
The Late Classic phase of Maya culture began just about the time that Teotihuacán declined, c. AD 600, and Teotihuacán’s misfortunes did not disrupt the general course of Maya culture history, as some archaeologists long believed. While the early influence of the great highland city on the lowlands may have been dramatic and direct, it was probably inconsequential after the beginning of the 7th century. It may be no coincidence that some murals at Cacaxtla show central Mexican warriors being defeated by others who look more like Maya. But this is itself puzzling, because it is one of the few examples of Maya intrusions or cultural influence far beyond their own ethnolinguistic borders; we do not know how to interpret the events depicted, except, possibly, as the overthrow of native Pueblans by Omecaxicalanca migrants.

**Kingdoms and Capitals**

The southern Maya lowlands were never politically unified, and during Late Classic times at least 45–50 separate kingdoms are indicated by their associated emblem glyphs. These distinctive signs always occur in combination with the names and titles of kings, and serve to identify a dynasty or its polity. Beneath the veneer of similar art, writing, and architecture, these kingdoms varied greatly. Some, like Tikal, were very ancient, while others were newcomers. Some had large populations and territories, while others were much smaller. Polities, or more properly their dynasties, were identified with different sets of patron gods. Several Maya languages and dialects were spoken, and pottery and tools in use differed from one region to another. Political and social arrangements no doubt varied among kingdoms as well, as suggested by the use of different royal titles. Nevertheless, an underlying “Mayanness” clearly united all these kingdoms, reinforced by trade, military alliances, intermarriage among elite families, common rituals and religious beliefs, and the periodic movement of peoples. This last is particularly important. Centers, polities, and whole regions experienced political and demographic instability and marked cycles of prosperity and decline throughout Maya history. The abandonment of Nakhbe and El Mirador, for example, probably contributed to the rise of such sites as Tikal [see box: Tikal, pp. 626–27].

Each major Late Classic kingdom focused on a central precinct dominated by large masonry pyramid-temples, the palatial residences of kings and lords, spacious public plazas with altars and stelae, and ball courts. Often these huge complexes grew by accretion, and in the process incorporated the elaborate tombs of rulers and elites. The most famous such tomb is that of Kinich Janaab’ Pakal [16.35], the great 7th-century king of Palenque (Martin and Grube 2008). Despite their impressive appearance, however, some Maya centers were extremely short-lived. All the large buildings at Pakal’s capital, for example, were erected in less than a century [16.36].

Radiating out from these zones of monumental architecture were the households of lesser people. It is often difficult to determine where the edges of these communities lie, because settlement typically thins out gradually with distance, merging with the outlying rural households of the farmers who formed 80–90 percent of the population. This kind of settlement distribution is much less urban-looking and more dispersed than that visible at Teotihuacán, Monte Albán, and other highland cities. Nor is there evidence for the multiplicity of functions or economic complexity found at Teotihuacán. Maya centers are best envisioned as enormous courtly and ritual places from which royal rule emanated, although there are some exceptions [see box: Mesoamerican Urbanism, p. 628].

Most Late Classic kingdoms probably had territories small enough to walk across in a day or two, although some were larger. The kings of Copán, on the southeastern margin of the southern lowlands, might have had 18,000–20,000 subjects in the 8th century AD. Tikal’s region would have been more populous, with perhaps 120,000 people. Complicating such estimates is the fact that some kings occasionally dominated or “possessed” lesser ones through alliance, conquest, or some other kind of system of loose suzerainty or patronage. Some archaeologists believe that larger politics consisting of hundreds of thousands of people were patched together in these ways by superpowers such as Tikal or Calakmul (Martin and Grube 1993), but if so, they must have been very fragile.

**Maya Society**

Royalty Maya social and political organization was strongly hierarchical, and central to all was the institution of kingship, symbolized in the ancient ajaw title borne by rulers and their immediate relatives. Maya kings were sacrosanct, hedged about with ritual and sacred duties. Their most important obligations were to ensure balance and stability in the cosmos, and particularly agricultural fertility. Kings impersonated gods at royal ceremonies and were custodians of mysterious “god bundles.” Some of them, such as Palenque’s Pakal, were resurrected as gods themselves. Deceased royal ancestors exerted powerful influences over the living world. Day-to-day activities were focused on royal courts, which were places of elegance, indulgence, and conspicuous display (Inomata and Houston 2001; Miller and Martin 2004).

From very early times, some kings seem to have been more exalted than others, who were social or political inferiors and perhaps in some sense subordinates. Copán’s dynasty, for example, seems to have overseen the founding of Quiriguá’s, so the Quiriguá line might have constituted a cadet lineage. Conflict could overturn such relationships, however, as when Copán’s ruler was killed at Quiriguá in AD 738, and the smaller polity asserted its independence. Similarly, the kings of Yax-
chilán were overlords of the rulers of Bonampak, where celebrated wall murals completed on the eve of the Maya collapse record such relationships.

Succession to kingship focused on suitable males in royal patrilineages, but in the absence of an acceptable male heir, women could serve as regents or occasionally queens in their own right, and pass on the title. Kings were expected to be powerful warriors, and their monuments often boast of the capture and sacrifice of enemies. Males of royal lineages who did not ascend the throne had other responsibilities; signatures show that some of them were artisans who made stelae and other precious objects, and they probably were the repositories of the highest levels of literacy and calendrical lore. Some of the most talented sculptors and painters were apparently “loaned” to lesser communities within multi-center kingdoms.

Lords and Officials. Ranked below royalty were other great lords and officials. Some of the most exalted had titles such as sajal or aj k'uhun, respectively meaning a kind of subordinate ruler, and a close associate and “provisioner” of the king. Inscriptions suggest that such titles were both bestowed by kings and inherited in family lines. Women sometimes bore them as well as men, and some titled officials were royal relatives. Texts often characterize titled individuals as “owned” or “possessed” by kings. Living in their own palatial residences, they attended on the courts of their royal masters, and served various governmental and ritual functions. Rulers and elites were leaders in ritual, war, tax collection, diplomacy, and construction projects, but whether Maya kingdoms had a bureaucracy in the modern sense is unknown.

Commoners. Supporting all this complexity were commoners, mostly farmers, who made up the vast bulk of the population, paid taxes in kind or labor, probably served in war, and who are known mainly from the remains of their modest households (Sheets 1990). Where population densities were low, they practiced various forms of swidden (slash-and-burn) agriculture, augmented in other regions by more intensive systems of cultivation utilizing terraces and drained fields.

Because of the technological limitations that affected all Mesoamerican societies (the lack of metal tools, traction animals, and wheeled vehicles), each farming household could cultivate only limited amounts of land, and so produced only small surpluses with which to support kings and nobles. Cheap, heavy
KEY SITE Tikal

Tikal is one of the largest Classic centers in the Maya lowlands, and many conceptions of the ancient Maya derive from research done there since the late 1950s (Harrison 1999). The architectural history of the site can be divided into two main periods: Late Preclassic/Early Classic; and Late Classic. During Late Preclassic and Early Classic times, Tikal's kings were buried in the imposing North Acropolis; a series of temples with astronomical orientations was built in the nearby Lost World (Mundo Perdido) complex, whose 30-m (98-ft) pyramid was, until the 8th century AD, the tallest building at Tikal. In the 4th century AD the great king Jaguar Paw I built a palace that became the nucleus of the residence that housed his successors.

Earthworks

Despite the "foreign" disruption in AD 378, when a lord named Siyaj K'ak arrived, possibly from Teotihuacán, Tikal continued to prosper, and Teotihuacán architectural elements were incorporated into some buildings. A vast set of earthworks at least 25 km (15.6 miles) long was built to partly enclose the center and several hundred square kilometers of territory that formed the core of the polity. Although it has long been assumed that the earthworks were Early Classic fortifications, research in 2003-06 showed that many sections make little defensive sense and that the dating is by no means clear (Webster et al. 2007). The earthworks nevertheless represent a set of boundary features that show us what parts of the landscape the inhabitants of Tikal thought should be delimited by a formal boundary. If they do relate to the Tikal-Calakmul conflict, they did not prevent Tikal's military defeat by Calakmul and its allies in the mid-6th century. Only fragments of royal monuments dating between AD 562 and 692 have been found, and the local dynasty was obviously weakened, although there was much more royal and other activity during this so-called "hiatus" than previously thought (Moholy-Nagy 2003).

16.37 (Above) Plan of the center of Tikal in the 9th century AD. Impressive groups of buildings were joined to the Great Plaza by wide causeways.

16.38 (Opposite) The pyramids of Tikal rise steeply out of the surrounding forest. Temple 1 is about 32 m (105 ft) high, and topped by a roofcomb.

products such as maize could not be efficiently moved in bulk over great distances, and so agrarian economies were quite local.

Warfare Warfare is now known to have been virtually constant among the Classic Maya, who not long ago were envisioned as a uniquely peaceful civilization (Webster 2000). Wars were fought to capture sacrificial victims, avenge past defeats, acquire titles and status, neutralize enemies, exact tribute, and almost certainly to annex territory. No particular polity or coali-

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The Late Classic Site

The heavily reconstructed Tikal visible today, sprawling over an area of about 4 sq. km (1.5 sq. miles), represents the mature site as it looked c. AD 800, vastly enlarged by resurgent kings after Calakmul was defeated in its turn by Tikal in AD 695. Around the Great Plaza is the most imposing set of buildings. On the north is the North Acropolis, burial place of Tikal's kings, and across from it the huge Central Acropolis, with its hundreds of rooms and courtyards that housed living kings, their families, and their retainers. Temples 1 and 2 are on the east and west, and altars and stelae are displayed in the plaza itself. Artificial reservoirs were constructed to provide water, and drainage was carefully arranged to fill them. Other imposing sets of buildings are attached to the Great Plaza by wide causeways. On the hilly terrain around Tikal are thousands of smaller clusters of buildings, most of which represent residential compounds built on high ground with good drainage. Population density drops off markedly with distance from the major palaces and temples, but still some 60,000 people probably lived within the protected hinterland.

Tikal began to decline after about AD 800, and its last royal monument is dated to AD 869. Most of its population disappeared around AD 830–950, although the larger region was never completely abandoned.

Postclassic Mesoamerica

Until the 1950s, when scientific techniques such as radiocarbon dating became available, our conceptions of the chronology of Mesoamerican cultures were strongly anchored in Maya Long Count dates. These seemed to indicate a crisis between AD 800 and 1000, so it made sense to begin the Postclassic period for all of Mesoamerica at about this time. Postclassic societies in general were widely believed to be less sophisticated, more war-like, and more “decadent” than their splendid Classic forbears. Such perceptions now seem quaint and wrongheaded. There was no sudden, uniform process of florescence and decline that simultaneously affected all of Mesoamerica (Smith and Berdan 2003). Both Classic Teotihuacán and Monte Albán lost their power and influence centuries before the Maya collapse, and many Postclassic societies such as the Aztecs were extraordinary civilizations by any standard. Fortunately, we know a great deal about Postclassic Mesoamerica, because these late times
KEY CONTROVERSY Mesoamerican Urbanism

All great ancient civilizations had imposing central places, and archaeologists have traditionally spent inordinate amounts of time excavating them. Does it make sense to call all such places on the ancient Mesoamerican landscape “cities,” in some Western sense of the word? Much controversy swirls about this issue for several reasons (Sanders and Webster 1988; Smith 1989). Most important being the obvious variability these centers exhibit. Olmec La Venta was a very different kind of community from Teotihuacán or the Aztec capital Tenochtitlán, and central places such as El Mirador or Monte Albán are in many ways microcosms of their larger societies; thus, understanding what each was like is vital. In addition, many people think that any civilization worthy of the name must be urban in character, just as it must have writing. According to this point of view, saying that some ancient cultures lacked true cities somehow devalues them.

If monumental temples and palaces, ball courts, and great plazas with sophisticated public art make cities, then ancient Mesoamerica abounded in them. If, on the other hand, we include less directly observable features, such as large, dense populations and a wide array of urban functions, particularly economic ones, then identifying urbanism becomes more problematic. Classic Teotihuacán, with its huge population, density of settlement, and all the obvious economic specialization evident among its apartment compounds, certainly was an impressive urban center by anyone’s definition. Monte Albán, Xochicalco, Tula, and Tenochtitlán also clearly qualify, as do several other less well-documented cities, such as Tezoco, Cantona, and Cholula. On the other hand, Olmec and most Classic Maya centers such as Tikal or Copán appear to have had much smaller and less dense populations, and far simpler economic institutions. Major 16th-century capitals in the Maya highlands of Guatemala are essentially fortified elite strongholds.

Cities and Regal-ritual Centers

Many archaeologists believe that despite their obvious variation, all these places were true cities, and assert that we should not impose our own urban models on a distinctive, non-Western urban tradition. Others think that calling all of them cities obscures important aspects of variation in the ways in which they developed and in the functions they served. According to this view, centers such as La Venta, Tikal, or Copán were essentially regal-ritual capitals of great lords and royal dynasties, which lacked both the scale and complexity of Teotihuacán or Tenochtitlán. Instead, they were the gigantic households of rulers or lesser lords, centered on palaces and courts, and having the temples, tombs, ball courts, art, and other facilities essential to rulership. Falling between these extremes are such sites as the small Maya center of Cancuen, which has a huge palace and workshop facilities, but no large temples. Postclassic Mayapan had a very dense population concentrated inside a wall, and the Early Classic site of Chichultun in northwest Yucatán has a similar but larger layout, though not much in the way of impressive palace or temple architecture; some archaeologists think it was a major mercantile emporium (Dahlin 2000).

Conclusion

The position taken here is that true cities developed in Mesoamerica only where distinctive urban ecologies allowed large, dense populations to be supplied with food and other necessities, overriding the strong energetic constraints imposed by simple technology and transport. For example, Teotihuacán depended heavily on its local irrigation system, and Tenochtitlán benefited from the enormous productivity of chinampa (drained field) agriculture and effective canoe transport on the surrounding lake.

In both cases, the resulting dense urban populations generated new economic institutions, such as huge markets, as well as the demographic base to expand their political and economic influence, which in turn allowed for the acquisition of taxes and tribute over very wide regions.

The Rise of the Toltecs

Foremost among the Early Postclassic kingdoms celebrated in Mesoamerican myth and history is Tula, the great urban successor to Teotihuacán (Mastache et al. 2002). For the Aztecs Tula was Tollan, the legendary city, and they called its inhabitants Toltecs. The Aztecs imagined the Toltecs to be rich and accomplished at every conceivable craft, and their name came to be synonymous with “skilled artisan.” Toltecs are said to have lived harmonious lives under their ruler Ce Acatl Topiltzin Quetzalcoatl, whose splendid palaces were adorned with shell, turquoise, silver, and gold. They worshiped a principal god also called Quetzalcoatl, who required only the sacrifice of butterflies. Toltecs produced crops effortlessly and unfailing, and even the cotton grew in brilliant colors. Toltecs wise men invented the arts of medicine and the arts of the days and years. Tula finally fell, so the myths said, when Quetzalcoatl and his followers were tricked by evil enemies linked to the malevolent god Tezcatlipoca, and fled to distant lands in the direction of the rising sun.

The real Tula emerged on the fringe of the Basin of Mexico some 80 km (50 miles) northwest of Teotihuacán. This region of about 1000 sq. km (386 sq. miles) receives comparatively little rainfall but has several large rivers, making it attractive for irrigation agriculture. In Classic times the area was heavily col-
onized by people with strong connections to Teotihuacán, many of whom probably produced lime for making plaster. Around AD 700 a little community grew up around a modest group of civic structures at a place called Tula Chico. Ceramics and other artifacts found there show strong connections with areas to the north and west, consistent with stories that Tula was founded by intrusive Toltec-Chichimeca peoples migrating from those directions. Following a slight shift in the location of the ceremonial core of the community, Tula matured into a huge city between AD 900 and 1200, with a population as large as 60,000 people concentrated in an area of about 16 sq. km (6 sq. miles). Many of its inhabitants may have been new migrants from southern parts of the Basin and Tula’s culture represents a fusion of central Mexican and northern influences; other influences (especially religious) and perhaps populations came from the Huasteca on the northern Gulf Coast. Clearly, the city was a very cosmopolitan place, although most of its people were probably Nahuatl speakers (the language of the Aztecs).

Tula sprawled over a landscape of low hills, valleys, and swamps at the confluence of two major rivers. It derived much of its support from numerous outlying rural communities, especially to the east, where 30–40 percent of the population resided. Houses in the city itself took several forms, a common one being a set of rectangular, adobe structures, each with multiple rooms, built around a central courtyard. Such compounds probably housed several nuclear families. A high proportion of city dwellers must have farmed nearby irrigated land or perhaps cultivated maguey (agave), a plant perfectly suited to the dry environment. As at Teotihuacán, there are many remains of workshops that manufactured special products such as obsidian tools, mold-made pottery, and stone vessels.

At the highest point in the center of the city is a huge sacred precinct composed of large pyramids, ball courts, and spacious colonnaded halls [16.39, 16.40]. Building facades are decorated with panels showing jaguars and deities, and supporting pillars are carved in the form of warrior figures. Above the heads of some of these warriors are undeciphered glyphs resembling later Aztec writing, which probably represent names. Both the general arrangement and specific architectural elements of Tula’s monumental buildings show similarities with Teotihuacán.

During Tula’s hegemony, strong links were forged with other parts of Mesoamerica, including regions beyond its borders. Objects were imported from great distances, such as marine shell from the Pacific and Gulf of Mexico, and pottery from as far away as Central America. What appear to be Toltec
KEY CONTROVERSY The Collapse of Maya Civilization

Contrary to popular belief, the so-called Classic Maya collapse was not a sudden catastrophe, nor did it affect all ancient Maya people (Webster 2002). The whole northern half of the Yucatan Peninsula was comparatively unscathed, and remained impressively civilized until the Spanish conquest. In the old southern heartland, however, kingdoms after kingdom eventually failed over an area of about 150,000 sq. km (58,000 sq. miles), roughly the size of the state of Florida; eventually most of the population of this region, estimated at about 5 million people, also disappeared.

The Fall of Kings
What all such evidence mainly signals is failure of the Maya royal institution. It was long believed that lords and commoners disappeared at about the same time as kings, making the collapse much more mysterious and dramatic. Some peoples did indeed experience this kind of abrupt and total collapse, but elsewhere the process was much slower. At Copan, some noble residences were still occupied as much as 200 years after the royal dynasty fell, and the commoner population dwindled away over about four centuries. A few polities, such as Lamanai in Belize, never collapsed at all, and the Classic kingdom of Coba survived to play a major role in later Postclassic conflicts. Still, by the time the Spaniards first penetrated the old heartland region in 1524 they found it almost deserted, apart from the vigorous Itza kingdom near the ruins of Tikal. However long it took, something dramatic did eventually destroy Maya civilization in the southern lowlands. The collapse is best viewed from the perspective of particular kingdoms, although in some sense it was a communicable failure as well.

Possible Causes
Such a protracted and variable process of decline does not lend itself to simple explanations. Many “prime mover” causes have nevertheless been singled out, including peasant revolts, soil exhaustion, epidemic diseases, earthquakes, ideological fatigue, and, most recently, drought. No explanation goes very far by itself to justify the complex patterns of the collapse, and some (e.g., earthquakes) are simply unconvincing. Many archaeologists agree that a complex set
trading colonies have been identified as far south as El Salvador (Fowler 1989). Equally important were exchanges with outlying peoples far to the north, beyond the Mesoamerican frontier, for example Casas Grandes in northern Mexico.

While not a power on a par with Teotihuacán, Tula certainly dominated sizable territories. Later traditions mention several centers tributary to Tula, all located near the northern fringe of Mesoamerica, and some archaeologists think that all of the Basin of Mexico fell under its hegemony. Tula's principal rival in the highlands was probably Cholula, but this is difficult to verify in the absence of inscriptions. Sometime around AD 1150–1200 Tula violently collapsed, as indicated by signs of burning in the principal buildings; somewhat later, these same buildings were heavily looted. Many people still lived in outlying settlements, however, and the urban zone was later reoccupied, persisting as a small city subject to the Aztecs in the early 16th century. Carved and painted motifs in the later Aztec capital resemble those found at Tula, and some of Tula's sculpture might have been relocated there.

The Postclassic Maya

The Puuc Florence Maya polities in the northern part of the Yucatán Peninsula weathered the collapse of the great southern kingdoms and in some ways might even have benefited from it (Sabloff and Andrews 1986; Milbrath and Peraza 2003). Early in the 8th century AD, population began to expand greatly in the Puuc region of northwest Yucatán (Prem 1994). Soils there were very fertile, but rainfall was comparatively low and the water table deep, so it was not until sophisticated water storage technology was developed that people began to live there in large numbers. They seem to have moved in from several directions, and many archaeologists think that the increasingly troubled southern Maya contributed some of the migrants.

Eventually the Puuc landscape was packed with imposing centers such as Sayil, Kabah, Labna, and, most famous of them all, Uxmal. Distinctive elements of Puuc architecture include columns and complicated mosaic sculptures of gods, humans, and geometric facade designs [16.41]. The House of the Governor and the Nunnery at Uxmal are among the most famous

of interacting factors was responsible, and that the single most important elements in this mix were overpopulation and a deteriorating agricultural landscape. These stresses triggered more savage warfare, population movements, famine, disease, and loss of confidence in the pretensions of rulers. Particular kingdoms were more or less vulnerable to specific subsets of causes, but the synergism among all these problems eventually undermined the larger system of civilization in the southern lowlands.
(and frequently visited) of all Maya buildings. Originally there might have been several autonomous Puuc polities, but by AD 875-900 Uxmal probably gained political ascendancy.

Puuc architectural influences extended onto the northern plains of Yucatán, and ceramics of the kind typical of Chichén Itzá have been found in the Puuc heartland sites. Puuc prosperity was as short-lived as it was impressive, however, and the Puuc centers collapsed and the countryside around them was heavily depopulated c. AD 1000 or a little later. Many people probably migrated to the northern plains of Yucatán, where there were related Puuc-tradition settlements and where the next great regional power was shortly to appear.

**Chichén Itzá** According to Maya chronicles, Chichén Itzá was the greatest of all Postclassic capitals. It began its rise during the 8th century AD on the flat plains of northern Yucatán, about 130 km (80 miles) northwest of Uxmal, near a huge water-filled sinkhole, or cenote, that became a major pilgrimage center. At the core of this immense site are the Castillo Pyramid, the Monjas Palace, a gigantic ball court, and other impressive structures [16.43]. Many buildings in the southern part of Chichén Itzá show Puuc architectural affinities, but elsewhere the abundant painted and carved motifs are strikingly central Mexican – and more specifically Toltec – in character. Chichén Itzá’s connections with Tula have long been debated, but native histories say that the Itzá founders of Chichén were succeeded by Mexican migrants led by a man called Kukulkán, meaning “Feathered Serpent” in Maya. Inevitably this myth has become associated with the expulsion of Quetzalcoatl (which also means “Feathered Serpent”) and his followers from Tula.

Details of Chichén Itzá’s culture history are obscure, because inscriptions and dates are confined to the 9th century AD. Warrior imagery celebrates conquest and sacrifice, and Chichén Itzá was undoubtedly embroiled in many conflicts that probably involved Uxmal and the other Puuc centers. After about AD 900, Chichén Itzá eclipsed its major Maya rival, Cobá, a large site in northeastern Yucatán, and Mexican influences proliferated. For the next several centuries it was the capital of an expansive northern state, as well as a mercantile emporium that probably benefited from the trade in salt, among many other commodities.

Then sometime around AD 1200 or 1250, Chichén Itzá rapidly declined as a regional power. Maya histories blame debauched leaders and internal strife, and claim that one faction of the Itzá fled far to the south, where its members founded the last Maya kingdom to be conquered by the Spaniards. Chichén Itzá itself was never completely abandoned, however, and remained a famous pilgrimage center where sacrifices were made even after the Spaniards arrived.

**Mayapan** Native Maya histories say that the successor to Chichén Itzá was Mayapan, founded by a lord of the Cocom family about AD 1263. New research suggests that Mayapan was established as early as the 11th century and inherited Chichén Itzá’s political role as a major capital in northern Yucatán (Milbrath and López 2003). Mayapan has a comparatively small monumental core, and the last phase of its temple is a diminutive replica of the Castillo. Newly discovered murals associated with this final pyramid show strong influences from Central Mexico, and elaborate stucco sculptures decorated an earlier phase of the pyramid. Mayapan has a very distinctive settlement layout. A low stone defensive wall encloses a zone of about 4.3 sq. km (1.6 sq. miles), crowded with over 4000 structures, most

16.43 **Chichén Itzá:** a view of part of the Temple of the Warriors and the Group of the Thousand Columns, from the Castillo Pyramid, which dominated the main plaza at the site.
of them residences. With a population estimated at 12,000, Mayapan approached the urban densities of the great central Mexican cities. Exactly who lived there is unclear, but many of its inhabitants were probably elites and their retainers, who resided there during at least part of the year. Like Chichén Itzá, Mayapan is said to have been the capital of a great confederacy, but it seems less convincing as a dominant power than its great predecessor. Several conflicting Maya accounts say that Mayapan fell c. AD 1441, beset by drought, famine, and a rebellion of Lords against the evil Cocom lineage – a kind of replay of what happened earlier at Chichén Itzá. Signs of burning have been found in the ruins of some elite households, and Mayapan was largely abandoned two or three generations before the Spaniards came.

**Mesoamerica Discovered: What the Spaniards Found**

In 1519 the Spaniard Hernan Cortés sailed with a small fleet to Yucatán, following up two previous expeditions that had reported impressive native cultures there. Best known for his conquest of the Aztec empire, Cortés also left accounts of the 16th-century Maya, who were the first Mesoamerican people he encountered (Cortés 1586).

**The Maya of the Early 16th Century**

No great power arose to replace Chichén Itzá and Mayapan in northern Yucatán. Instead, the landscape was fragmented into hundreds of small polities ruled by hereditary leaders called **batabs**, most of whom had only a few thousand subjects (Roys 1965). Larger but fragile coalitions united sets of **batabs** who shared the same lineage, or who made alliances for mutual benefit. War was common among, and even within, the little **batabships**, many of whose noble families – such as the Xiu and Cocom – had been traditional enemies for centuries. Here and there a very powerful leader managed to dominate many local **batabs** and suppress their conflicts, in effect creating a petty kingdom that might number as many as 60,000 people.

Despite this lack of overall political integration, northern Maya societies were quite complex, and still retained their own versions of much older Classic patterns. The Spaniards were impressed by the large towns they saw, organized around temple pyramids, public plazas, and elaborate houses (Landa 1941). Priests officiated at community rituals, wrote in books, and tracked time using somewhat altered forms of the old Classic Maya calendars. Nobles bore illustrious family names, were rich in land, and claimed descent from foreigners. They were supported by the taxes of commoners, and engaged in long-distance trade in cloth, honey, gold, obsidian, slaves, and chocolate. Most people grew maize, fished, or produced special products such as salt. Lowest in rank were slaves, mainly war captives or debtors, who were house servants or field hands. Clearly, some watered-down version of ancient Classic civilization still thrived in northern Yucatán when the Spaniards arrived, and even after (Restall 1997). Following a few skirmishes with the Maya there and along the Gulf Coast, Cortés and his army moved on to their confrontation with the Aztecs, leaving the Maya two more decades of freedom.

**The Aztecs and the Late Horizon: History and Myth**

Early in the 16th century many native peoples believed that their ancestors had migrated to the Basin of Mexico in successive waves from the northern fringes of Mesoamerica. These movements began about the time that Tula collapsed, or perhaps a little earlier. Such migrations may have been caused by some combination of climatic change and political instability. Most important are the migration stories of those people we today call Aztecs, who were Nahua speakers.

The Nahua word for the people who lived on this northern frontier was Chichimec. The Aztecs envisioned some of them as savage hunter-gatherers, others as farmers who practiced irrigation, played the ball game, and built temples; and there was a last, even more sophisticated group, who were refugees from the disintegrating Toltec kingdom. Some archaeologists believe these wanderings first introduced Nahua speakers into the Basin of Mexico. (Nahua languages, of which Nahuatl is one, are members of the Uto-Aztecan linguistic family and had probably long been spoken in other parts of Mesoamerica.) Others think many of these migration accounts were "reconstructed history," made up later to justify events, and that Nahua speakers had colonized the region much earlier. If the glyphs recently detected at Teotihuacán turn out to record Nahuatl speech, this second position will be strengthened. At the very least, they would show that there were some Nahua speakers in the region already by Classic times.

Whatever their origins, none of the people Cortés encountered in the Basin of Mexico would have called themselves Aztecs; instead, they used more specific ethnic labels, such as Mexico-Tenochca (the founders of Tenochtitlán), Acolhua, Tepaneca, or Chalca. A number of related groups of this kind purportedly came from a mythical homeland called Aztlan, and historians collectively label them "Aztecs." One such band of tribal farmer-migrants adopted the name Mexica along their route, and eventually found themselves driven as despised refugees (or if one prefers, led by their patron god) onto a set of small islands in Lake Texcoco, part of the shallow lacustrine system on the floor of the Basin of Mexico (Durán 1994). This refuge was a sort of no-man's land claimed by the Tepanecs of nearby Azcapotzalco, and surrounded by enemy polities. There in AD 1325 the Mexica founded their capital and [→ p. 636]
**KEY SITE** Tenochtitlán: The Aztec Capital

From humble beginnings c. AD 1325, Tenochtitlán grew to be the largest and most complex city in the New World by the early 16th century—a worthy successor to Teotihuacán and Tula (Galvez 1973). When Hernan Cortés and his soldiers first explored it in 1519, the core of the city—essentially an artificial urban island reclaimed from the shallow lake by draining and infilling—covered a 12–15-sq. km (4.6–5.8-sq. mile) area near the western edge of Lake Texoco.

Because it was crisscrossed by a network of canals and attached to the mainland by 60 cm (37 miles) of causeways and an aqueduct, it reminded the Spaniards of Venice.

About 125,000 people resided in this core zone, most of them in single-story adobe houses aligned along streets, alleyways, and canals. Around the edge of the city were many houses set on small chinampas, or artificial islands, which were used to grow flowers and other special crops for the urban markets.

Tenochtitlán was organized into approximately 80 barrios, or neighborhoods, each of which probably housed members of an urban unit that pursued special economic tasks. The city probably housed a far smaller proportion of farmers than Teotihuacán had.

Much of the lakebed outside the city to the south and west had been transformed by state projects into thousands of hectares of chinampas and tree-lined canals (Coe 1964). Farmers lived on many of these artificial fields, and there were scores of towns on higher ground and along the shoreline. Enormous agricultural yields from the chinampas, coupled with efficient water transport, created a unique urban ecology that supported the large urban population.

There were other respectably sized cities in the Basin of Mexico as well, such as Texcoco on the eastern shore of the lake, but with an estimated population in the range of 30,000–40,000, even it was dwarfed by its powerful neighbor.

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**The Templo Mayor**

At the center of Tenochtitlán was a great enclosure roughly 400 m (1300 ft) on a side. Recent discoveries suggest that its perimeter comprised a wide platform with smaller temples atop it, a design probably copied from the Ciudadela at Teotihuacán. Inside the enclosure were about 80 structures, including temples, dormitories for priests, schools for elite young men, dance platforms, ball courts, skull racks, and clubhouses for warrior societies.

Dominating all these was the 30-m (98-ft) high Templo Mayor or Great Temple, with its twin sanctuaries on the top dedicated to Tlaloc, the rain god, and Huiztilopochtli, the god of war and the sun. Some 7000 offerings, along with many human sacrifices, have been recovered from the fill of the Templo Mayor, which was rebuilt and enlarged seven times.

With this vast complex of buildings the Mexica created an architectural cosmogram—a model of the world, or at least the important...
pleasure gardens, a zoo, and vast storehouses for food and the spoils of the empire.

The Central Market
About 1 km (0.62 mile) north of the sacred enclosure was the sprawling central market, where one could purchase virtually anything produced in the Basin of Mexico or brought to the city from elsewhere in the empire through tribute or trade. In this section of town were concentrated the houses of the pochteca, or professional merchants.

Destruction
Unfortunately, we must rely mainly on native and Spanish accounts for most of these details, because much of Tenochtitlán was destroyed in 1521 or later demolished by the colonial Spaniards. What is left mostly lies deep beneath the modern streets and houses of Mexico City. Large sections of the Templo Mayor zone have been excavated by Mexican archaeologists, however, and their findings correspond closely to written descriptions. The consolidated ruins of the Templo Mayor and its nearby museum are major tourist attractions today.

The Palaces
Around the edges of the enclosure were the palaces of the highest nobles and officials, and grandest of all, the palaces of kings. One old royal palace was so large that it housed the entire Spanish army. King Moctezuma’s palace, located near the southeast corner of the sacred enclosure, was a labyrinthine complex of several hundred conjoined rooms and courtyards on varying levels. The upper
named it Tenochtitlán, a place destined to become a Tollan in its own right and the greatest metropolis of the pre-Columbian New World [see box: Tenochtitlán: The Aztec Capital, pp. 634–35].

At the end of the 14th century there were several dozen independent, warring city-states in the Basin of Mexico (Hicks 1986; Hodge 1996). The Mexica-Tenochca enlisted as mercenaries in the service of the powerful and aggressive Tepanecs, and in return received a share of tribute from their combined military victories. About this time the Mexica elected their own king, who married into an exalted dynasty descended from the Toltecs. In response to a falling out with their Tepanec overlords in AD 1428, the Mexica rebelled, aided by two other allied states, Texcoco and Tlacopan. The overthrow of the Tepanecs vastly promoted the power of the Mexica king Itzcóatl and his fledgling dynasty, and helped to create a dominant class of nobles and a tradition of powerful kings, as well as promoting the Mexica tribal god.

At this juncture these emergent leaders, by their own account, burned their ancient books and proceeded to write "true" history (Duran 1971; 1994). All this set the stage for the dramatic explosion of empire under the Triple Alliance of Tenochtitlán, Texcoco, and Tlacopan over the next 91 years – an empire that was still expanding when the Spaniards arrived. This short interval of less than a century represents the third and last of the episodes of relative cultural unity in Mesoamerica – the so-called Late Horizon.

The Aztec Empire in 1519

By 1519 the mature Aztec empire [16.48] dominated some 400 previously independent polities over an area of about 200,000 sq. km (77,226 sq. miles), including the Gulf Coast, the Valley of Oaxaca, parts of western Mexico, and places as distant as the Pacific coast of Guatemala (Berdan et al. 1996). Its subjects numbered somewhere between 6 and 10 million people, and about 1 to 1.5 million of them lived in the Basin of Mexico, giving it demographic advantage over any outlying region; it was probably the most densely settled region of the entire pre-Columbian New World. The Basin of Mexico landscape was heavily transformed by terracing, irrigation systems, and artificially drained fields, and represented the most productive agrarian region of Mesoamerica in the early 16th century. Maize and beans were the most important staple crops, but others included amaranth, chia (both types of grain), and agave. The Aztecs also continued to use many wild resources, including waterfowl and a kind of blue-green algae that was skinned from the surface of the lakes and made into high-protein cakes.

The empire was assembled through intimidation, alliance, and outright conquest. Conquered polities were grouped into 38 tributary provinces, from which tribute of all kinds [16.49] flowed into the Basin of Mexico (Anawalt and Berdan 1992). All this wealth disproportionately enriched the king of Tenochtitlán and his nobles, who effectively dominated their erstwhile partners in the Triple Alliance. Another set of strategic provinces consisted of polities that had joined the empire as military allies, and who paid only nominal tribute. Such allies were necessary because of the logistical problems in moving and feeding large armies without effective transport, making distant sources of loyal soldiers and staging areas necessary – and because there remained nearby powerful enemies to be contained.

Most formidable of these opponents were the Tarascans, who were vigorously building their own empire over some
75,000 sq. km (29,960 sq. miles) of western Mexico (Pollard 1993). By 1519 they controlled a population of about 1,500,000 people from their capital of Tzintzuntzan, on the shores of Lake Patzcuaro. With 20,000–25,000 inhabitants, Tzintzuntzan was much smaller than Tenochtitlan, but exercised highly centralized control over its empire. Fierce Tarascan warriors inflicted heavy defeats on Aztec armies in the late 15th century and forced a stalemate along their common border, which both sides fortified and garrisoned.

Closer at hand was the Tlaxcalan confederation to the east of the Basin of Mexico, whose people were culturally very similar to the Aztecs. Although surrounded by Aztec territory and allies, the Tlaxcalans retained their independence and ultimately became staunch supporters of the Spaniards.

For the most part, the members of the Triple Alliance managed to administer their provinces quite effectively, although an occasional rebellion had to be put down. Complaisant local rulers were left in place, and their offspring married into the royal families of Tenochtitlan, Texcoco, and Tlacopan. Sometimes, mainly in the imperial core territory, the Basin of Mexico, local dynasties were extinguished and replaced with royal governors, and their lands and peoples directly absorbed by the great rulers. Elsewhere, the Aztecs preferred to rule through the comparatively cheap expedients of intimidation and the frequent appearance of tax collectors.

Nevertheless, they found it necessary in some 20 places, such as in the Valley of Oaxaca and along the Tarascan frontier, to arrange more direct control through imperial governors and garrisons. On rare occasions they used very punitive measures against local communities, for example at some places along the Tarascan frontier, and groups of commoners from the Basin of Mexico were sometimes resettled as military colonists in sensitive frontier posts.

Aztec Society No matter what its rank in the imperial hierarchy, each city-state (altepetl) in the Basin of Mexico shared many common features with the others. Language, diet, technology, religion, and customs heavily overlapped, as did political organization. One or more hereditary king (tlatoani) ruled each altepetl. Kings and their families, along with other high nobles (collectively called pipiltin), comprised the hereditary upper class and were the primary beneficiaries of the tribute of empire. Kings and nobles were polygynous (having many wives or concubines), so their numbers grew rapidly, necessitating further resources and so additional conquests. Noble houses owned private lands, and their members were rewarded with further estates in return for military or governmental service.

While nobles were exempted from paying taxes, they were expected to serve the state in other ways. After receiving special education, the pipiltin monopolized the highest political and religious offices and formed the elite backbone of the army, which was otherwise conscripted. High pipiltin officers and warriors also attended the ruler every day at his palace [16.59] and participated in the extraordinary court life of the capital (Evans 1998).

Commoners, the largest component of society, owed both service and taxes to their own tlatoani, and often to his overlord. Most of these people were farmers or urban artisans, usually living together in communities or neighborhoods with their own leaders, schools, and temples, and owing collective obligations to the state; the most important of these were contributing corvee labor and serving in the army. Successful commoner warriors occasionally achieved quasi-noble rank and were rewarded with gifts, military titles, and land. Many of the most talented artisans, such as goldsmiths, also had high prestige because of their close associations with nobles. Richest among the commoners were the pochteca, or professional merchants, who led caravan-like trading expeditions to distant places both inside and outside the empire, their enterprises partly funded by nobles and even kings. Many of the valuable goods they brought back to Tenochtitlan or other towns found their way
into the great markets, and the pochteca profited sufficiently to lead (at least in private) comparatively luxurious lives. Because they could afford to buy sacrificial victims, they also enjoyed limited upward social mobility since anyone who donated a sacrificial victim was honored and praised.

Lower still in rank were the mayeque, who were tied to the land and who labored on the estates of kings and nobles, although they paid taxes only to their immediate lords. Many of these people were probably originally free commoners who had been relegated through conquest to a serflike condition. At the bottom of society were the ilacotin, who occupied a depressed economic status (the Spaniards called them "slaves"). These individuals owed service to other people. Some were war captives, while others were demoted to this condition through debt or as a result of criminal acts. They could, however, own their own property, and buy their freedom, and their children were born free. Only if they proved recalcitrant were they mistreated, and consistently malcontent individuals could be sold or sacrificed.

The Spanish Conquest

In 1519 the Aztec empire showed no signs of serious weakness. Motecuzuma II, the reigning king, worked to consolidate the gains of his predecessors, and had sent emissaries into the highlands of Guatemala to demand gifts, usually a prelude to absorption into the empire. Whether he would have been successful in subduing the highland Maya, whose Quiché and Cakchiquel kingdoms were themselves highly stratified and warlike (Sharer 2000), will never be known. A new and unexpected threat appeared in the form of Hernan Cortés and his little army, initially numbering only about 500 men (Diaz 1563; Hassig 1994). By coincidence, they landed on the shores of the empire on the very day that Aztec diviners prophesized the return of Quetzalcoatl, the hero-king of the Toltecs.

Having heard rumors on the Gulf Coast of Motecuzuma's wealthy empire, Cortés and his men marched inland in August of 1519. The Tlaxcalans initially resisted the Spaniards, but they quickly realized that these aggressive newcomers could be used against their hated Aztec enemies. Accompanied by Tlaxcalan and other Indian allies, Cortés and his men finally entered Tenochtitlán in early November, where they were received amicably, if reluctantly, by Motecuzuma and housed for six months in his father's palace. During this interlude (their host Motecuzuma was placed under Spanish "house arrest" for most of it) they observed many details of Aztec life that contribute to the descriptions given above. Cortés and Motecuzuma went on hunting trips together, and Spanish soldiers played games of chance with the Aztec monarch.

Eventually this amity broke down. Motecuzuma was killed under mysterious circumstances during fighting that broke out in May 1520, precipitated by the desecration by the Spaniards of the main temple in the city. At this point the empire showed its weaknesses, as one by one, the allies of Tenochtitlán fell away, perhaps the most damaging defection occurred when Texcoco turned on its former imperial partner. After many months of fierce fighting, the Spaniards finally stood victorious amid the smoking ruins of Tenochtitlán in August 1521.

It would be convenient to end our story at this point, but there is one dramatic and poignant postscript. Most of Mesoamerica was firmly in Spanish hands by 1550, but the Itzá Maya held out deep in the forests of northern Guatemala for another 150 years (Jones 1998). According to Itzá traditions, their ancestors had migrated into these southern forests when Chichén Itzá fell. At their island capital of Nojpeten, located on a great lake near the long-abandoned ruins of Tikal, Itzá kings still sported the old Classic royal title of ajaw, built pyramids and temples, worshiped many of the old gods, and consulted painted books of prophecy. Not until 1697 was this last native kingdom finally brought under Spanish control, and with its conquest the rich independent tradition of Mesoamerican civilization that began 4000 years earlier ended, once and for all.
Summary and Conclusions

A few conspicuous New World societies — the Aztecs, Maya, and Incas — are widely known to the public, but the larger story of the rise of New World civilizations is not so familiar as that of their Old World counterparts in Egypt, Mesopotamia, China, and the Indus Valley. Nevertheless, the tradition of culture that emerged in Mesoamerica was every bit as complex and impressive. Nor is this a new perception, for when Europeans first embarked on the organized exploration of the Yucatán and Mexico in 1519, they encountered much that astounded them, but also much that they intuitively understood.

Hernán Cortés’s letters to the Spanish king Charles V express his astonishment at what he and his little army saw on their march toward Tenochtitlán: people living in hierarchical, well-ordered, urban-centered, and literate societies, similar to those that the Spaniards knew from Europe, the Near East, and North Africa. Little of this complexity was evident in the Antilles or Panama, or in other parts of the New World that the Spaniards had previously explored. Cortés labeled these Mesoamerican people gente de razón, which was about as close as he could get to calling them civilized (the word “civilization” in its modern sense did not then exist in any European language). Indeed, one reason why Cortés so adroitly managed the conquest was because the general features and institutions of Mesoamerican society were comprehensible to him.

This familiarity fascinates anthropologists and archaeologists, who have long regarded the New World as a kind of vast anthropological laboratory from which comparative lessons can be drawn. We now know that New World civilizations evolved independently of Old World contacts, so the general patterns that Cortés saw and recognized are the result of convergence, a fact that strengthens our conviction that there are regularities in cultural evolution, one of the general themes of this book. Nevertheless, there was much that puzzled the Spaniards as well. How could Mesoamerican people be so prosperous without large domestic animals, or metal tools, or machines? How could merchants and markets thrive without sailing ships, or beasts of burden, or coinage? Most puzzling, how could these accomplished, sophisticated, and orderly people be ignorant of the Christian god, and even carry out horrific rituals that included human sacrifice? Ultimately, it is this contrast that is most fascinating of all. Over thousands of years, ancient Mesoamericans created a tradition of civilization that still strikes us as both familiar and strange.

In the next chapter we turn south to a second region of the Americas that witnessed the development of complex societies during the later Holocene. In South America (more particularly, in the Andean zone), a sequence of states and empires rose and fell from the late 1st millennium BC onward. Yet South America is a much larger landmass than Mesoamerica, and much of the continent lay beyond the reach of these changes. Social and cultural developments in less well-explored regions such as Amazonia are nevertheless significant, and contribute to an understanding of South America as a whole.

Further Reading and Suggested Websites


www.famsi.org Website maintained by the Foundation for the Advancement of Mesoamerican Studies, with contributions by professional Mesoamericanists and many links to other good sources on almost any Mesoamerican topic.

www.doaks.org Website of Dumbarton Oaks Research Library and Collections, in Washington, D.C., which maintains one of the best on-line pre-Columbian research libraries and archives.