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### Chapter

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# 2.19 THE BASIN OF MEXICO

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## Introduction

Mesoamerica is one of the few areas in the world where archaic state societies emerged. In this vast territory that includes more than half of Mexico, as well as Guatemala, Belize and parts of Honduras and El Salvador, different types of states coexisted in the so-called Classic Period (100–900 CE). This chapter will deal with one of the major regions where large multiethnic states and cities developed, a volcanic and seismic region characterised by a lacustrine environment and a diversity of resources (obsidian to the northeast, aquatic animals and plants, forest resources, agricultural land, volcanic rocks, etc.).

As Sanders, Parsons and Santley (1979: 1–2) put it, the Basin of Mexico played a significant role in the development of Mesoamerican civilisation:

At the time of the Spanish Conquest, it had the densest population, the largest and most highly differentiated urban centers, and the most complex political and economic organization in the history of Mesoamerican civilization.

An important effort to understand the Basin of Mexico was a long-term project during the 1950s through 1970s, headed by José Luis Lorenzo, at the former Department of Prehistory (of the Instituto Nacional de Antropología e Historia, Mexico), aimed at understanding the geological, glaciological, geomorphological, palaeoenvironmental and early occupational history of the basin (Lorenzo & Mirambell 1986; Lorenzo 1969; Mooser, Lorenzo & White 1956).

This effort has been updated by a group of scholars at the National Autonomous University of Mexico (UNAM), particularly at the Institute of Geology and Institute of Geophysics, who have done recent glaciological, geomorphological, and long-term palaeoenvironmental reconstructions of the Basin of Mexico (Caballero et al. 1999; Lozano-García & Ortega-Guerrero 1998; Lozano-García & Vázquez-Selem 2005; Vázquez-Selem & Heine 2004).

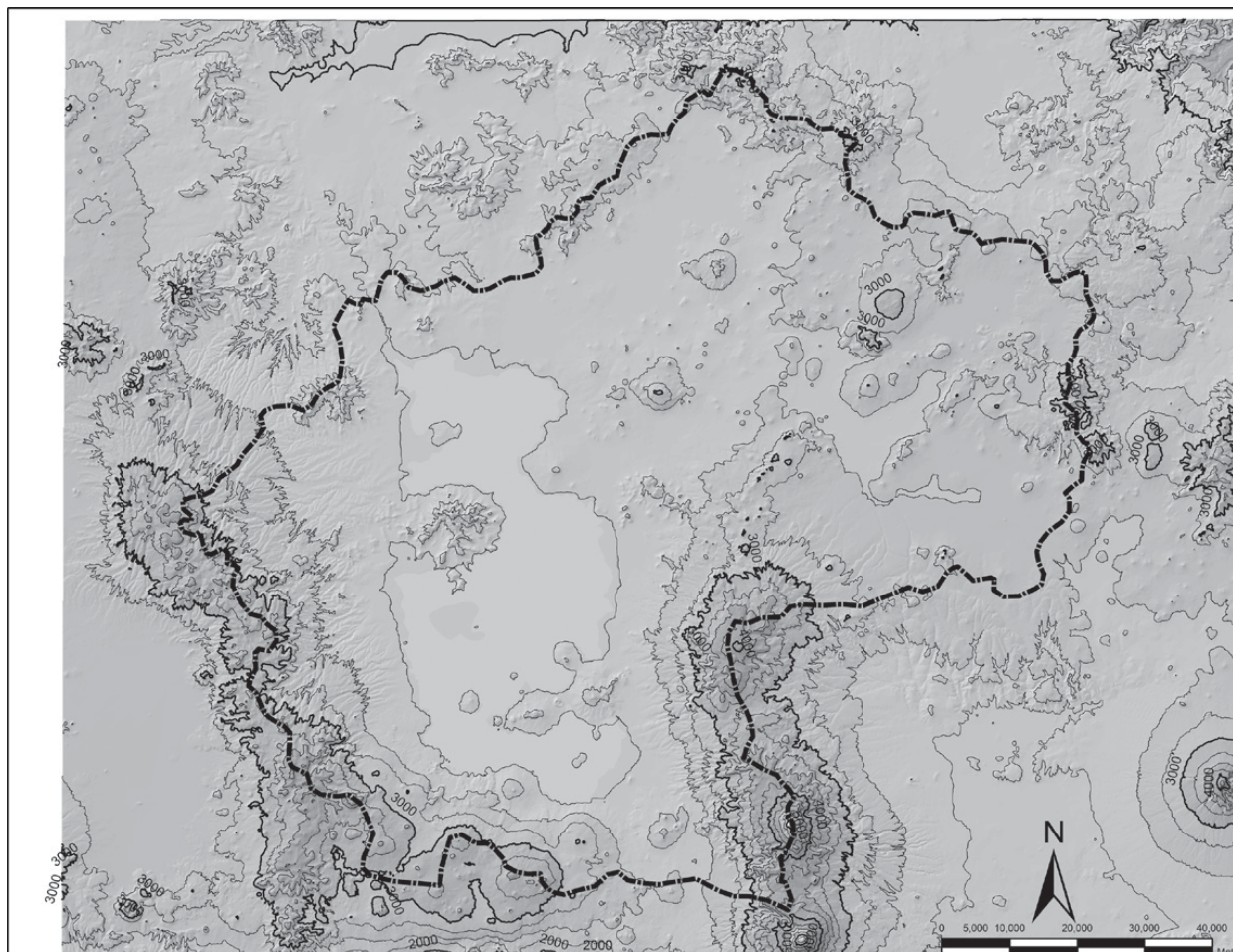
In 1960, Eric R. Wolf organised a conference at the University of Chicago on the Basin of Mexico; its goal was to assess the state of knowledge and plan future research. Many outstanding scholars of that time took part in it: McCormick Adams, Armillas, Carrasco, Coe, Deevey, Mayer-Oaks, Millon,

Palerm, Piña Chan, Sanders and Wolf. The research objectives concerned environmental and settlement-pattern changes, patterns of land use, relations between settlements, social, political and ceremonial control and so on (Sanders, Parsons & Santley 1979: 3). Twelve years later another conference took place, also headed by Eric R. Wolf, and a book was published with the research results (Wolf 1976).

During the fifteen years after the first conference (1960–74), William T. Sanders headed a large settlement-pattern project in this important area, particularly around the lacustrine basin and immediate piedmont, as well as in the Valley of Teotihuacan (Sanders, Parsons & Santley 1979). In it, Parsons, Santley, Blanton and others systematically surveyed with Sanders the different sectors of the basin, mapped surface archaeological materials, planned some small-scale excavations and established the settlement typology and history, the relations of the settlements with their environment, the resources available and the population profile of the region. Although we believe that this approach has its limits (*e.g.*, in sites with a long occupational history) and serious problems with the assessment of demographic data when only surface materials are available, it represents a titanic effort to establish a general panorama into which other research may be inserted. At the same time, René Millon headed the Teotihuacan Mapping Project, which aimed to map that ancient Classic metropolis (Millon 1973), another important effort in the understanding of the preindustrial world of the Classic Period.

In Mexico, federal agencies such as the Instituto Nacional de Antropología e Historia (INAH) have led large-scale projects involving salvage archaeology in Mexico City and towns in the Basin of Mexico, where metro lines, drainage pipes, electrical lines, malls and the urban metropolitan sector have heavily disturbed many of the sites that we will mention. This institute has also funded important excavation and conservation projects in the main Prehispanic metropolises in the basin: Teotihuacan (Bernal 1963; Cabrera-Castro, Rodríguez & Morelos 1982) and Tenochtitlan (Matos 2006).

The Basin of Mexico, originally a 9600 km<sup>2</sup> closed basin (Map 2.19.1), is fringed to the southeast by the high Sierra Nevada that houses two of the main volcanoes capped with snow in central Mexico – Popocatepetl and Iztaccíhuatl; this sierra separates the basin from the Puebla-Tlaxcala Valley to the



MAP 2.19.1. The Basin of Mexico. (Lorenzo 1968.)

east (a region rich in travertine and *teccali*, a variety of alabaster), which is a vast plain fringed by volcanoes such as the ones already mentioned and La Malinche; it stands on the way to the Gulf coast (from which cotton cloth, marine animals, birds and fine clays were brought), the Maya region (which provided jadeite, quetzal feathers, honey, animal hides, cacao) and the mountainous Oaxaca sector (from which mica and Pacific marine shells were brought). To the south, the Chichinautzin Sierra separates the Basin of Mexico from the lower Morelos Valley, which leads to southern Mexico and to the warm *Tierra Caliente* from which cotton, avocado, honey, greenstone and slate came. To the west the Basin of Mexico is fringed by the Sierras de las Cruces, Monte Alto and Monte Bajo, which separates it from the Toluca Valley, a swampy sector that often provided foodstuffs, as well as a corridor leading to the western Bajío region. To the north there is a low group of mountains separating the basin from the state of Hidalgo, from which limestone was quarried. To the northeast the Pachuca Sierra provided the prestigious green and golden obsidian.

The Popocatepetl volcano is still active, a smoking mountain that ejected pumice many times during the human occupation of the basin, particularly c. 3000–2370 BCE, 200 BCE to 100 CE, and 822 CE (Siebe *et al.* 1996; Plunket & Uruñuela 1998). There were also a series of monogenetic volcanoes that erupted only

once, such as the Xitle volcano in the southern Chichinautzin Sierra (with different radiocarbon dates assigned, spanning from 500 BCE to c. 300 CE, which may have caused a major demographic disruption around 245–315 CE; Siebe 2000).

Many different types of volcanic rocks available in the basin were used in ancient constructions: basalt, andesite, volcanic tuff and volcanic scoria; there are also two areas where obsidian was found – the main raw material from which blades, points, side-scrapers, end-scrapers, knives, *etc.* were made in central Mexico: the Otumba area in the Valley of Teotihuacan (for grey obsidian) and the Pachuca Sierra de las Navajas (for green obsidian).

There are two different sectors in the Basin of Mexico with a semi-arid environment, both located to the northeast: one in the Valley of Teotihuacan, the second in the Pachuca region. The rest of the basin has subhumid temperate weather (García 1968: 23).

The lake system occupies the western portion of the basin; it includes the Zumpango and Xaltocan shallow lakes in the north, the Chalco and Xochimilco lakes to the south and, in the middle, the saline Texcoco lake, which is the lowest and largest (at a height of 2235 m above the sea level). The lake system was fed by different rivers flowing to the centre of the lake, as well as by springs. Many types of food resources were

TABLE 2.19.1. Chronological chart for the Basin of Mexico.

|               | Late Postclassic    | 1350–1520 CE         |
|---------------|---------------------|----------------------|
| Postclassic   | Middle Postclassic  | 1150/1200–1350 CE    |
|               | Mazapa Phase-Toltec | 800/900–1150/1200 CE |
| Epiclassic    | Coyotlatelco Phase  | 650–800/900 CE       |
|               | Metepc Phase        | 550–650 CE           |
|               | Xolalpan Phase      | 350–550 CE           |
| Classic       | Tlamimilolpa Phase  | 200–350 CE           |
|               | Miccaotli Phase     | 100–200 CE           |
|               | Terminal Formative  | 150 BCE to 100 CE    |
|               | Late Formative      | 600–150 BCE          |
| Formative     | Middle Formative    | 1100–600 BCE         |
|               | Early Formative     | 1700–1100 BCE        |
| Early Horizon |                     | c. 22,000–1700 BCE   |

Sources: Grove (2000); Manzanilla (2009a, 2009b); Manzanilla, López and Freter (1996); Parsons (1989); Beramendi-Orosco et al. (2008); Soler-Arechalde et al. (2006); Hueda-Tanabe et al. (2004).

collected from them: five kinds of fish, frogs, freshwater molluscs, turtles, aquatic insects and waterfowl, reeds, algae, salt and so on (Sanders, Parsons & Santley 1979: 85).

The deep alluvium surrounding the lake is formed by the sediments brought by various rivers flowing from the mountains to the centre of the basin, a land with cypress, *Acacia*, oak, and grasses, with volcanic-derived soils good for cultivation and hunting (cottontail rabbit, jackrabbit, reptiles, rodents, white-tail deer, etc.). The lower piedmont is a gently sloping land, sometimes highly eroded, with an oak forest. The upper piedmont (2500–2700 m) is a land covered by oak-pine forest (Sanders, Parsons & Santley 1979: 88), from which many species of tree were brought to the Prehispanic urban centres, particularly *Pinus leiophylla* (Manzanilla 2008b).

In this diverse region stands the present capital of Mexico – Mexico City – as well as most of the former large multiethnic urban settlements of Mexico: colonial Mexico City, Mexico-Tenochtitlan of the Aztecs and Teotihuacan in the Classic Period. These very large cities differ from other urban sites in Mesoamerica through their orthogonal layout, their density, their multiethnic character and the fact that they were capitals of vast states.

## The Early Occupations of the Basin of Mexico: The Early Horizon and the Formative Period (c. 22,000 BCE–100 CE)

The first evidence for occupation of the Basin of Mexico is in the Archaeolithic Period, at the site of Tlapacoya, located in the northern side of Chalco Lake. Three hearths were found associated with extinct animal bones, and dated by radiocarbon

to around 22,000–19,700 BP. Some artifacts made of obsidian (21,950 BP) and chert were found in other trenches. Other than Tlapacoya, the Santa Lucía Military Base provided a mammoth associated with obsidian and andesite flakes dated between 21,950 and 24,350 BP (García-Bárcena 2007: 30; Mirambell Silva 2000: 239–41).

During the Cenolithic (a period involving the transition between the Upper Pleistocene and the Holocene), there are six sites, particularly Santa Isabel Iztapa I, San Bartolo Atepehuacán, Santa Lucía, Los Reyes La Paz I (two bone artifacts), Chimalhuacán-Atenco (a side-scraper and an obsidian blade) as well as the skeletons of five mammoths in Tocuila, Texcoco (around 9250 BP). For the Upper Cenolithic and Protoneolithic, the gathering of different resources, particularly those provided by the lake, was the main subsistence activity. New instruments appear (celts, grinding stones), as well as new patterns of seasonal movements throughout the basin (García-Bárcena 2007: 32–3). Tlapacoya II, IV and XVIII reveal the initial efforts towards the cultivation of plants.

A very important environmental reconstruction of the early transitional phases towards sedentary life in the basin was provided by the excavations led by Christine Niederberger in Zohapilco (Tlapacoya). The Playa Phase (5500–3500 BCE) features a technology directed at woodworking, as well as grinding stones. The site seems to have been occupied in winter (due to the presence of carbonised migratory bird bones); other animals eaten were deer, rabbits, turtles, amphibians and fish. The presence of obsidian involves the participation of the Zohapilco people in exchange systems (Niederberger 1976).

The Zohapilco Phase (2500–2000 BCE) may be marked by a volcanic eruption of pumice and ashes from the Popocatepetl volcano, which disturbed the forest environment, and thus caused a decrease in the mammal population. Grinding stones became abundant, and there was an increasing importance of cereals in the diet, supplemented by summer horticulture (represented by *Cucurbita*, *chayote* and *cheno-ams*) (Niederberger 1976).

According to Niederberger, the Nevada Complex (1400–1250 BCE) constitutes the first evidence of pottery in the Basin of Mexico, with thin bowls as the most popular form, with zonal decoration and nail impressions. For some archaeologists (García-Moll 2007: 36–7), there may be three complexes in the Basin of Mexico: one would be the Zacatenco-Ticomán Complex, which is a local development; the second has been called “olmecoid”, with pottery decorations that recall those of the Gulf coast; and the third is a component with strong ties to western Mexico. Extended burials may be found in pits under house floors.

For Sanders, Parsons and Santley (1979: 94), this Early Horizon (from 1500 to 1150 BCE) has evidence of nineteen sites, of which twelve are hamlets, three are small villages, two are large villages and three are sites of undetermined character. Tlatilco may have become a large village, and most of the settlements are located in the southern and western sectors of the basin.

The Ayotla Phase (1250–1000 BCE) is marked by a predominance of maize, as well as the use mainly of grey and black obsidian in the technological repertoire (particularly prismatic blades). The mammals found in Zohapilco are white-tail deer, *Antilocapra*, peccary, dog or coyote, rabbit, different species of duck and waterfowl, eagle, reptiles, amphibians, fish and so on. Niederberger (1976) detected a nucleation of certain settlements around which villages and hamlets are disposed. The presence of schist, jadeite, ignimbrite and metamorphic rocks indicate long-distance exchange networks. The iconography evident in pottery relates these sites to the Olmec system of representations.

The Manantial Phase (1000–800 BCE) has evidence for large-scale deforestation of the Zohapilco area for cultivation. The lake suffered a regression, and the swampy area was colonised by reeds (Niederberger 1976).

During the lapse between 1150–650 BCE, there seems to be an expansion of settlements to the north, particularly to the Teotihuacan Valley; nevertheless, the major settlement clusters are located in the west around the Guadalupe Range, as well as the southern lacustrine basin; villages seem to be set at 5–10 km intervals. There is population growth and a few large nucleated communities (Sanders, Parsons & Santley 1979). Parsons (1989: 164) proposed a concentration of population in two sites in the basin, Cuicuilco and Tlatilco, although the data for this period at Cuicuilco are very scarce.

During the Zacatenco Phase (800–400 BCE, the Middle Formative), the pine-oak forest of the Zohapilco sector disappears, and one of the major sites is still Tlatilco, situated in the central-western portion of the basin, a site well-known for its more than five hundred burials, as well as pottery and figurines (Niederberger 1976). There are some indicators of an incipient elite (displaying adornments of jadeite and other exotic raw materials). Two of the well-known sites for this phase are El Arbolillo and Zacatenco, excavated by George Vaillant in the 1930s, and public architecture may be found in sites outside the Basin of Mexico, in nearby valleys, such as Teopantecuanitlan, Guerrero; Chalcatzingo, Morelos; and Xochitécatl in Tlaxcala (Grove 2000: 521).

Parsons (1989: 167–8) emphasised a major growth in population in the Middle Formative Basin (c. 900–500 BCE; seven times the Early Formative population), attaining twenty thousand inhabitants; the sectors occupied continue to be those of low altitude (2250–2300 m above sea level), in which each group had direct access to basic lake resources (reeds for mats and cords, fish, amphibians, etc.). This researcher also proposed an incipient sociopolitical hierarchy of two levels: two or three sites (one of which is Cuicuilco) with more than 40 ha, and eight or nine sites of 10–30 ha, with public architecture (one of which is Temamatla). The 8–9 km interval of each site around the southern lake system may suggest that each settlement was rather autonomous in relation to the others.

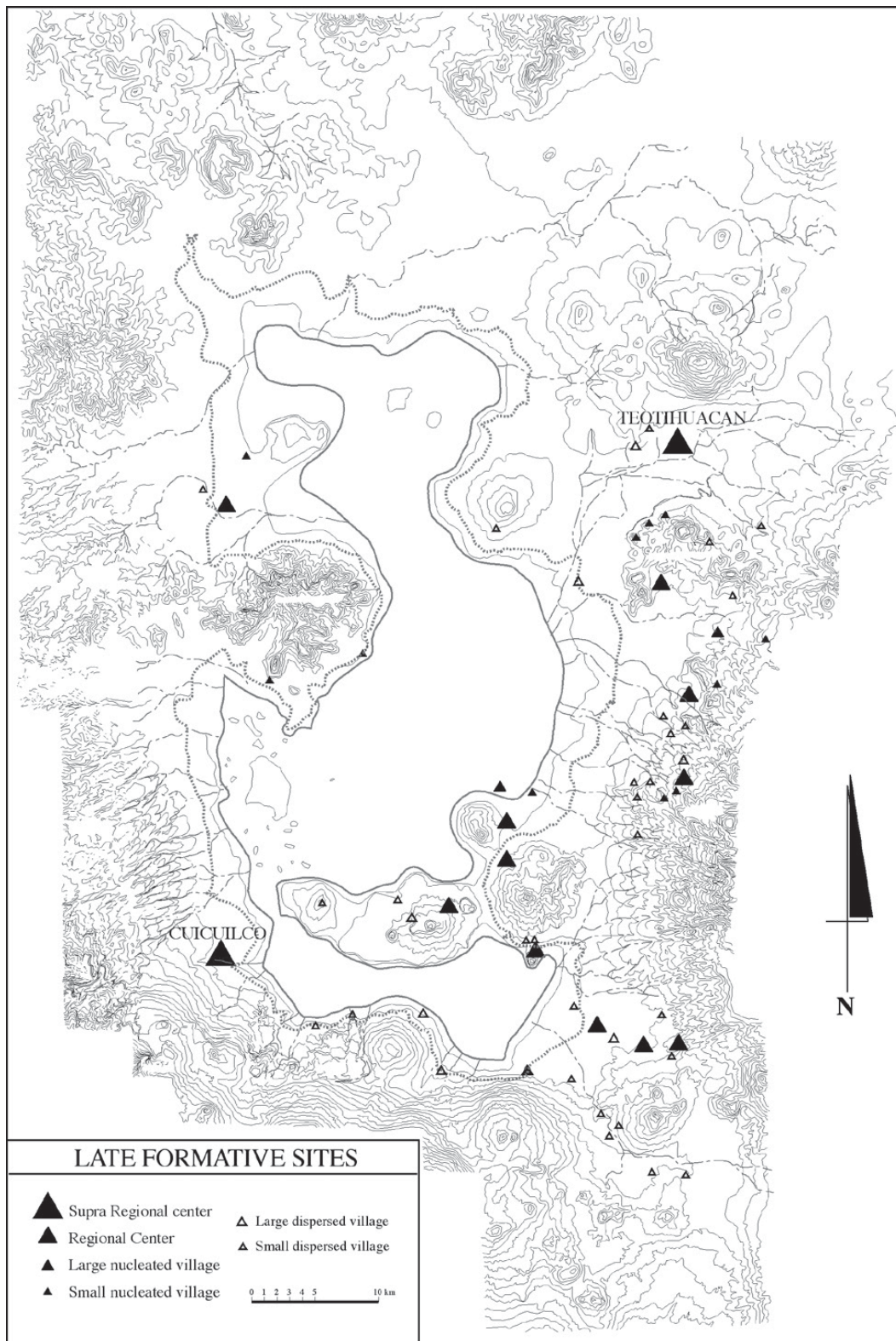
## The Late and Terminal Formative (400 BCE to 100 CE)

This period represents the initial stage of complex society in the Basin of Mexico. Two large sites located in opposite sectors of the basin dominate the political scene: Cuicuilco in the southwest and, somewhat later, Teotihuacan in the northeast.

Sanders, Parsons and Santley (1979: 97) proposed that, from 650 to 300 BCE, substantial population growth (particularly in the eastern and southeastern sector of the basin) was related to a well-defined hierarchy of settlements, with six regional centres (of which Cuicuilco is the largest), sixteen large villages, twenty-nine small villages, and 105 hamlets. These sites seem to be organised into four or five settlement clusters. It was also a period when the first presence of civic-ceremonial architecture is attested. Parsons (1989: 171) proposed a population growth to about seventy thousand people for the period from c. 500 to 250 BCE.

One of the factors that was important for Sanders (1968: 93) in the Basin of Mexico was the extraordinary diversity of the environment, creating tight microgeographical zoning with highly localised distribution of raw materials. He called the pattern of intense local specialisation and socioeconomic interdependence of human communities “economic symbiosis” (Sanders 1968: 100; Blanton 1976): Ecatepec would be devoted to the extraction of salt; Coapexco, to the manufacture of grinding stones; Loma Torremote and the Altica Sites, to the provisioning and distribution of obsidian; Terremote-Tlaltenco, to the exploitation of lake resources (Sanders, Parsons & Santley 1979).

For Sanders, Parsons and Santley (1979: 98–9), the next phase (300–100 BCE, part of the Ticomán Phase), represents a major sociopolitical change, as well as the doubling of the basin’s population, and the opposition of two very large regional centres: Cuicuilco and Teotihuacan (Map 2.19.2); Tezoyuca hilltop centres, 10 small regional centres, 10 large villages, 37 small villages, 135 to 150 hamlets and 4 isolated small ceremonial complexes. The main clusters are found at Chalco, Cuicuilco,



MAP 2.19.2. The Late Formative settlement pattern (300 and 100 BCE). (Sanders, Parsons & Santley 1979.)

Iztapalapa, Texcoco and the Teotihuacan Valley. Sites such as Terremote-Tlaltenco (XO-LF-2) may have specialised in lake resources at this time (Parsons 1989: 174). Although Cuicuilco should be set in this period, my impression is that the Valley

of Teotihuacan did not yet have a large regional centre as earlier researchers proposed, but a series of villages (such as Cuanalan; see Manzanilla 1985), and some Patlachique Phase sites (discussed later in this chapter).

At Cuanalan, at the confluence of the Teotihuacan Valley with Lake Texcoco, we have evidence of a village of 5 × 5 m wattle-and-daub huts set around open courtyards (where roasting ovens were found, as seen in other areas of Mesoamerica, particularly the Oaxaca central valleys), with a separation between houses of 9–12 m. Cuanalan experienced the exploitation of a wide range of resources from the basin (the lake, alluvial plain, piedmont and sierra): the cultivation of different varieties of maize (Fuentes Mata 1978) and three varieties of beans; the collecting of amaranth, *Setaria*, wild tomato, wild onions, cactus and Mexican hawthorn; the domestication of turkey and dog; and the hunting and collecting of white-tail deer, two species of rabbit (*Sylvilagus cunicularius* and *Sylvilagus floridanus*), freshwater fish, turtles and frogs (Manzanilla 1985). These villages were flourishing in humid and warm climatic conditions (McClung de Tapia et al. 2003; Gama-Castro et al. 2005).

In contrast to the Cuanalan 25 m<sup>2</sup> nuclear-family huts, Loma Torremote in the northern half of the basin displays domestic compounds of 300–600 m<sup>2</sup>, some of which are specialised in their productivity; three to six of these compounds share walls and are clustered, suggesting a larger social grouping (Grove 2000: 534).

Tlapacoya, on the northern fringe of Chalco Lake, was a monumental site in the Late Formative; in it a stone pyramidal structure, as well as three burials and rich offerings of jadeite, serpentine, slate and foreign molluscs were found (Niederberger 1976).

Cuicuilco, in the southwestern sector of the basin, is certainly the largest settlement in the basin, with its large circular pyramids and structures, burials and underground storage pits, although, due to the lava eruption of the Xitle volcano, we cannot assess its actual size. Parsons (1974) believed that Cuicuilco had 150 ha and 7500 people, although these figures are debated. Leaving aside the scarce Preceramic data, there are clues to continuous occupation of this important Formative centre from 600 BCE to c. 150/250 CE, when the Xitle volcano probably erupted (Rivera-González 2008; Müller 1990).

Marked regional settlement clustering, separated by empty buffer zones, is seen as a product of political factors: some degree of hostility (sites on mountaintops with public architecture), resource competition and perhaps the growing importance of canal irrigation (Parsons 1974: 105).

Many large sites with monumental architecture are also found in the Puebla-Tlaxcala Valley, such as Tlalancaleca, on the Iztaccíhuatl volcano's slopes (with its fifty platforms with *talud-tablero* architecture), Totimehuacan, Capúlac Concepción and many other towns in Tlaxcala with architectural elements and distributions that would be expanded at a monumental size in later Teotihuacan (García-Cook 1981: 252–7).

With the Plinian pumice eruption of the Popocatepetl volcano (which caused the abandonment of many Terminal Formative sites on its eastern slopes, such as Tetimpa and Petlachica; Plunket and Uruñuela 1998, 2000) and the eruption of the monogenetic Xitle volcano (Córdova, Martín del Pozzo & López Camacho 1994) during the first two centuries CE, different phases of demographic rearrangement occurred. The large demographic concentration at Teotihuacan (already occupied

by local people with strong ties to the Chupícuaro Culture of western Mexico; Manzanilla 1985) should be seen not as a forceful act or the effect of conquest (Sanders, Parsons & Santley 1979), but the natural consequence of a large population shift involving not only the southern sector of the Basin of Mexico, but also the eastern Puebla-Tlaxcala region.

Parsons (1989: 175) proposed that during the Terminal Formative (or Patlachique Phase; c. 150–50 BCE) the regional population in the basin may have attained 125,000 inhabitants; the southern third of the basin had a decrease of 15–20%, and expansion would have been to the east and northeast (Texcoco and Teotihuacan).

There are no data that support the assumption made by Sanders, Parsons & Santley (1979: 108) that a size of 20 km<sup>2</sup> and a population of sixty thousand were attained during the period from 100 BCE to 100 CE but this may have occurred two phases later. Most of what is said about Teotihuacan in this period refers to the so-called Old City, located in the north-western sector of the Teotihuacan Valley, which was originally thought to be densely occupied during the Patlachique and Tzacualli Phases. Nevertheless, what we see there is a series of construction clusters and by no means a densely occupied sector at this time. Our excavations in Oztoyalhuco 15B:N6W3 revealed some post-200 CE (Tlamimilolpa and Xolalpan) occupations on top of the volcanic tuff (*tepetate*) that served as the foundation rock for all the Teotihuacan constructions in the northern half of the city (Manzanilla 1993, 1996).

One thing that may be happening in the Teotihuacan Valley at this time is the arrival of different groups, fleeing from the eruptions in the south, and the construction of monumental architecture clusters: Plaza One of the Eagles, to the northwest of the Pyramid of the Moon; the first ceremonial constructions under the Pyramid of the Moon and the Pyramid of the Sun; and perhaps another cluster under the Ciudadela (Gazzola & Gómez, pers. comm., 2011).

The Valley of Teotihuacan had advantages that were pointed out by Millon (1973): it provided volcanic rocks for construction, obsidian for the manufacture of implements, freshwater from springs, an alluvial plain for agriculture and the easiest pass from the Gulf coast to the Basin of Mexico. We may also imagine that people fleeing from a volcanic eruption of such magnitude may soon have participated in the construction of a pyramid devoted to the opposite of that devastating force: a sacred mountain of fertility. This is what we think happened when the Pyramid of the Sun was built by piling up earth from the earlier Formative agricultural lots; the outer coating is of stone brought from tunnel quarries under the northern half of the valley, but the inner structure is only earth and small bits of tuff (Manzanilla 2000).

During the Tzacualli Phase (c. 1–100 CE), we also have the first and oldest construction under the Pyramid of the Moon; and during the 2nd century CE, the second building (Sugiyama & Cabrera Castro 2006). It is from this period that we also have foundation offerings at the palatial compound of Xalla, situated between the pyramids of the Sun and the Moon (Manzanilla 2008a; Manzanilla & López Luján, 2001; Manzanilla, López Luján & Fash 2005).

## The Classic Period (100–550 CE): The Great Metropolis of Teotihuacan

It is clear that during the 2nd and 3rd centuries CE large-scale construction activities were taking place in the Teotihuacan Valley, and the volcanic scoria with which most of the city was built was quarried by tunnelling under the volcanic tuff (Manzanilla, López & Freter 1996), an idea proposed by Sanders during his project in the valley. The Feathered Serpent Pyramid may have been built at that time, and currently Julie Gazzola and Sergio Gómez are analyzing the constructive sequence in this sector of the ancient city.

The first important period is the Tlamimilolpa Phase (200–350 CE), when the urban grid was laid out along with most of the elements of urban planning that René Millon (1973) so brilliantly synthesised: the existence of a series of streets which were parallel or perpendicular to one another, the constructive module of c. 57 m, the presence of multifamily domestic compounds, the foreign barrios, the channelling of the San Juan River to cope with the urban grid, the subterranean drainage system (Fig. 2.19.1) and so on.

The walls, floors and pavements of constructions and streets were plastered with 550,000 tonnes of lime; and to produce

them 24 million m<sup>3</sup> of timber were needed, not counting the lumber used as fuel in the domestic portable stoves and pottery production areas, nor the timbers used to roof the precincts and apartment compounds (Barba & Córdova-Frunz 1999: 176; Mooser 1968).

The subsistence of Teotihuacan was related to the consumption of maize, amaranth, different types of beans (*Phaseolus*) and squash (*Cucurbita*), *Chenopodium*, chile peppers (*Capsicum*), tomato (*Physalis*), cactus, Mexican hawthorn and Mexican cherries (McClung de Tapia 1979, 1980: 162–3; Manzanilla 1996). Some apartment compounds had access to foreign plants such as avocado, tobacco and cotton (McClung de Tapia 1979; Manzanilla 1996, 2006). Cultivation of plants depended on the summer rains, but there is also early evidence of intensive agriculture in the form of canals, as well as terracing (Nichols, Spence & Barland 1991).

With respect to the consumption of fauna, Teotihuacan depended on different species of rabbits, hares, white-tail deer, domestic animals such as dogs and turkeys, as well as waterfowl and migratory birds, freshwater fish and molluscs (Starbuck 1975; Valdez 1993). In some apartment compounds, such as Ozttoyahualco 15B:N6W3, we also have evidence of raising rabbits (Manzanilla 1993, 1996). Some multiethnic neighbourhood centres, such as Teopanazco, in the south-eastern sector of Teotihuacan, had important evidence of foreign fauna particularly from Veracruz: more than ten varieties of coastal-lagoon fish, crabs, turtles, crocodile, sea urchin and

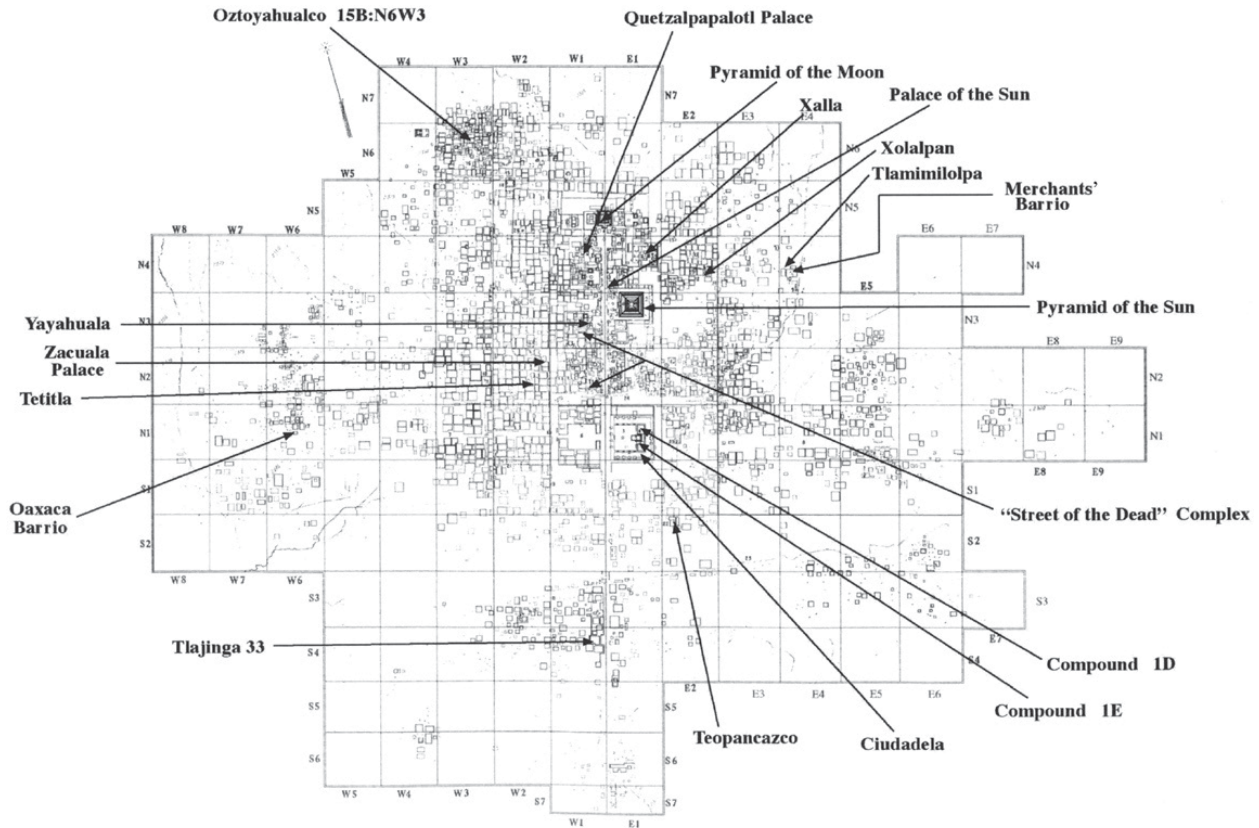


FIGURE 2.19.1. The city of Teotihuacan and its urban grid. (©René Millon 2009.)



molluscs (Rodríguez-Galicia 2006, 2010; Manzanilla 2006, 2009a) that came to the neighbourhood together with people (tailors), cotton cloths and pottery from the Gulf coast.

For Sanders, Parsons and Santley (1979: 122–7), the resources of the Basin of Mexico seem to cluster in four exploitation patterns: zone 1 would include the Teotihuacan Valley itself and the Texcoco area, that would include the main cultivation sector, as well as the quarrying of volcanic rocks for construction, fibres and clay; zone 2 is located in the central portion of the basin, particularly devoted to agriculture, lake-resource exploitation and salt extraction; zones 3 and 4 are the southern and northern peripheries of the basin. From zone 3 came animal protein, fibres, wood and wild plants, and from zone 4 perhaps lime, as well as obsidian.

Sugiura (2005; González de la Vara 1999) has argued that the eastern portion of the Toluca Valley located to the west of the Basin of Mexico was also part of the Teotihuacan catchment area, particularly for staple foods.

Sanders, Parsons and Santley (1979) stated that during the Classic Period the massive growth of Teotihuacan (20 km<sup>2</sup>, c. 125,000 people, and a density of 7000 people/km<sup>2</sup>) caused a substantial decrease in the population of the Basin of Mexico, the city containing half of the basin's population. Although they proposed the existence of ten provincial centres, there is no concrete evidence of other large settlements for the Classic Period, except for Azcapotzalco; most of the other settlements are seventeen large villages, seventy-seven small villages, and 149 hamlets, that is, a rural population (Map 2.19.3). The basin's overall population may have been around 230,000 people (Parsons 1989), mostly located in the northern half of the basin, contrary to the Formative settlement pattern.

Teotihuacan did not resemble any other contemporary city in Mesoamerica: it was exceptional for its size (Fig. 2.19.2), its urban planning, its settlement pattern (a huge city surrounded by rural sites), its corporate strategy (Blanton *et al.* 1996) and its multiethnic character (Manzanilla 2009a).

Domestic architecture was represented by multifamily apartment compounds (Fig. 2.19.3) clustered around neighbourhood centres. In each compound, the different households had a set of rooms, porticoes and courtyards to fulfil their needs, separated by corridors. Also, in each compound there was one main household that may have had the Thunder God (the Teotihuacan state's god) as its patron deity, suggesting a subtle hierarchical organisation in the domestic domain (Manzanilla 1996, 2009a; Barba, Ortiz & Manzanilla 2008). The fact that each household had a patron deity and a ritual courtyard (contrary to what is seen in the Classic Maya domestic territories, such as the ones excavated at Cobá, Quintana Roo, where the different related households share a domestic shrine; Manzanilla & Barba 1990) may give us hints on the multiethnic structure deeply embedded in the city's organisation.

This multiethnic structure is also evident in the Teotihuacan neighbourhood centres, where foreign craftsmen and other retainers may have been maintained by the noble house administering the neighbourhood (the intermediate elites) to produce status symbols such as costumes, ornaments and headdresses; these barrio centres had a ritual sector (temple,

altar and plaza), a military area, an administrative one, an area devoted mainly to very specialised craft production related to elite identity symbols, a residential sector for the elite and an alignment of kitchens and storerooms in the periphery, as well as an open space adjacent to it (Manzanilla 2006, 2009a). These neighbourhood centres were inserted in the inner ring around the core of the city, whereas in the periphery stood the foreign wards: the Oaxaca Barrio, the Michoacán enclave and the Merchants' Barrio (with people from the Gulf coast).

One can see four different scales in which craft production took place at Teotihuacan (Manzanilla 2009a):

1. The apartment compounds where everyday needs were met (blade-extraction, for example);
2. Extensive craft sectors in the periphery of the site to produce what the urban population needed (pottery, different obsidian instruments, figurines, minor lapidary, stucco);
3. Specialised identity markers (such as costumes, ornaments and headdresses) crafted in barrio sectors under the supervision of noble "houses" (Fig. 2.19.4); and
4. Specific crafts under the control of the rulers in embedded workshops (mica objects, darts, theatre-type censer plaques [Fig. 2.19.5], perhaps jadeite adornments, travertine [tecali and ónix adornments and sculptures]) (Manzanilla 2009a).

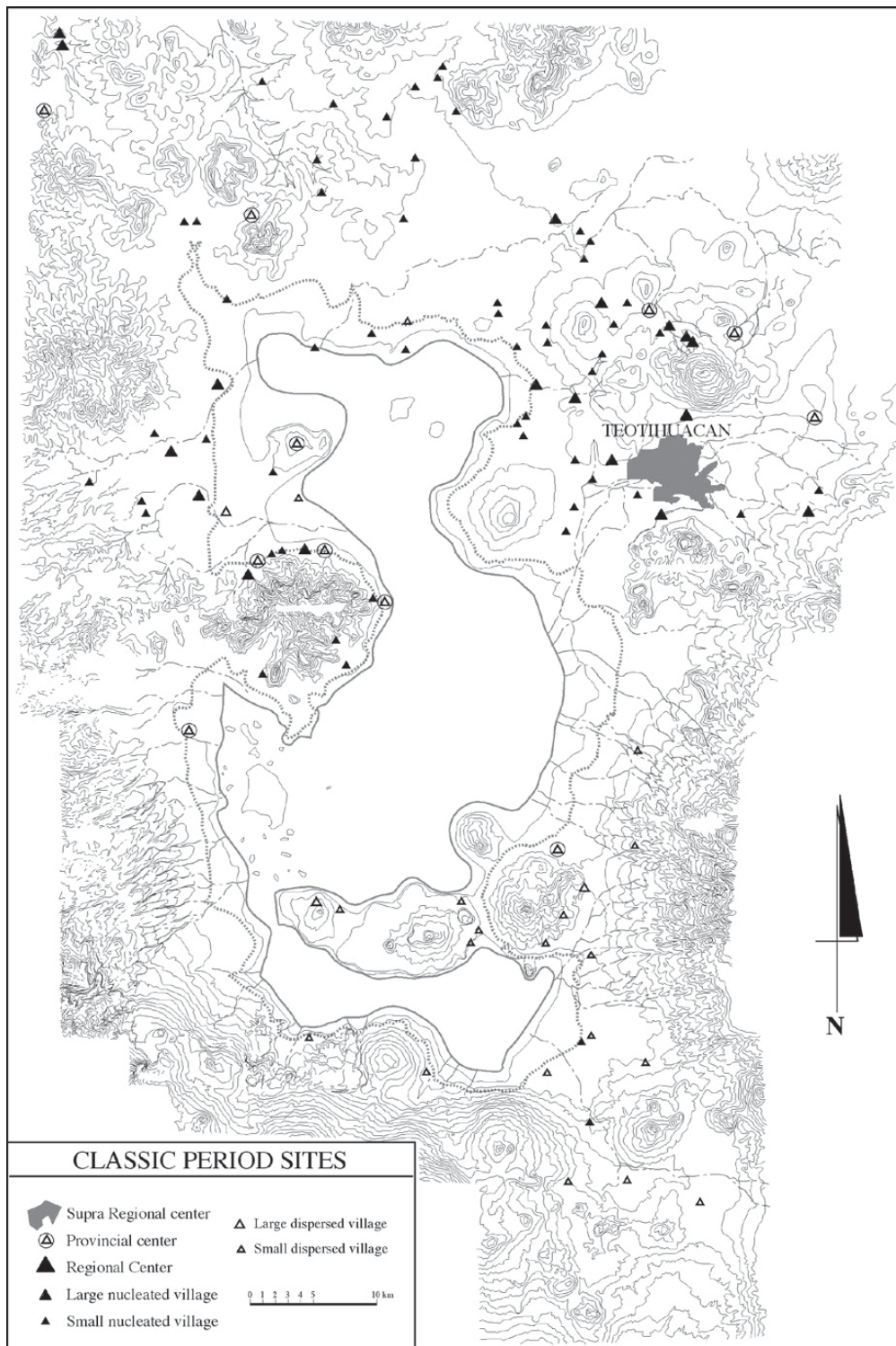
In most apartment compounds, craft activities were developed as part-time tasks. Edge rejuvenation and prismatic blade extraction from obsidian cores were carried out in many compounds.

Most of the craft production sectors for the urban dwellers seem to have been placed on the city's periphery. There is a large obsidian production sector in the northeastern periphery (San Martín de las Pirámides' eastern sector), possibly because the obsidian mines of Otumba and Pachuca lie to the northeast of the city itself. No Classic Period obsidian workshop has yet been excavated, so we know practically nothing about the organisation of obsidian production within the city (except perhaps for the recently studied obsidian fill to the west of the Pyramid of the Moon [Carballo 2007]).

In the eastern periphery lie small-item lapidary production areas, such as the one studied by Turner (1987) in Tecópac (N3E5), where jadeite, serpentine, quartz, quartzite, *tecali*, shell and mica were converted into different small objects, suggesting that most of these raw materials may have come from the east. Basalt grinding stones may have been manufactured in several sectors, except the western (Millon 1973).

Pottery production workshops that seem to be located in the southern periphery, at sites such as Tlajinga 33 (Widmer 1987, 1991; Storey & Widmer 1989), took advantage of the clay sources in this sector. Lime plaster production sectors are placed to the northwest (Manzanilla 1993), presumably because the main limestone areas are located in the Tula Valley (Díaz-Oyarzábal 1980), although some lime may have come from the eastern Morelos sector.

Some production areas changed preferences with respect to the type of craft produced, as was the case for Tlajinga 33, which was converted from a lapidary production sector in Tlamimilolpa times (200–350 CE) to a San Martín Orange manufacturing area (bowls and jars) during Late Xolalpan times



MAP 2.19.3. The Classic settlement pattern (100–600 CE) (Sanders, Parsons & Santley 1979.)

(c. 500 CE) (Widmer 1987, 1991; Storey & Widmer 1989). These changes occurred perhaps when some elite barrio centres such as La Ventilla took over the organisation of specialised lapidary production for elite costumes.

As stated before, in multiethnic neighbourhood centres, such as Teopanazgo (Manzanilla 2009a), we seem to have evidence of full-time craftsmen, perhaps of foreign origin,

devoted to manufacturing specialised luxury goods such as costumes, headdresses and personal paraphernalia.

At Teotihuacan, hierarchy is best expressed in the location of the structures near the Street of the Dead (the main north-south axis of the metropolis), the size of the compound itself, as well as of its main ritual courtyard and temple, the profusion and complexity of mural paintings and the proportion of



FIGURE 2.19.2. View of the Classic city of Teotihuacan. (Photo by Linda R. Manzanilla.)



FIGURE 2.19.3. The Oztoyahualco 15B:N6W3 apartment compound located in the northwestern portion of Teotihuacan. (Excavation and photo by Linda R. Manzanilla.)

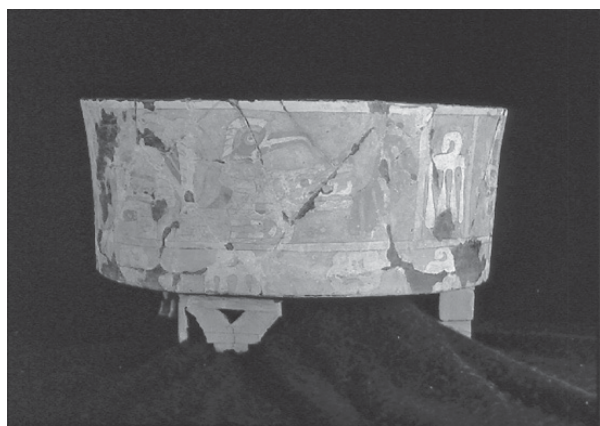


FIGURE 2.19.4. Polychrome vessel from the neighbourhood centre of Teopanazco, Teotihuacan, 27.2 × 16.2 cm. (Excavation by Linda R. Manzanilla; photo by Rafael Reyes.)

foreign raw materials controlled by the state (jadeite, mica, perhaps slate).

Beyond the neighbourhoods, there seem to have been four large sectors in the city, like the *campes* in Aztec Tenochtitlan. One's impression is that, as may be seen in the late Teotihuacan Las Colinas vessel found by Sigvald Linné (1942), the

northwestern sector of the city had birds of prey as its emblem; the northeastern sector had jaguars and goggled figures; the southeastern, serpents; and the southwestern, coyotes and canids (Manzanilla 2009a). Perhaps these were the sectors from which the four main ruling houses came (Manzanilla 2001a, 2002a, 2002b). The two sectors in the south may have



FIGURE 2.19.5. Theatre-type censer found by Linda R. Manzanilla in the Oztoyahualco 15B:N6W3 apartment compound. (Photo by Rafael Reyes.)

a greater multiethnic composition than the northern and more traditional sectors; the two sectors in the west seem to have more involvement in secular-military issues, and the two in the eastern half may have been the main ruling houses: the jaguars and the serpents.

To find major settlements, one has to go beyond the Basin of Mexico, where there may be a ring of related centres located 50–100 km from Teotihuacan (Parsons 1989: 186; Manzanilla 2001b, 2008b): Chingú in the Tula Valley (for lime production); Huapalcalco (Hidalgo) for obsidian provisioning; Cholula (Puebla); the corridor of Teotihuacan sites in Tlaxcala; Hacienda Calderón and Las Pilas (for lime production and products from the Morelos-Guerrero corridor), Azcapotzalongo (Valley of Toluca, for agricultural production; see González de la Vara 1999).

In the Tlamimilolpa Phase (200–350 CE), relations with Veracruz seem to be very important, and the presence of cotton cloths for elite attires was one of the main issues involved in these relations. Yet at the end of this phase, around 350 CE, there were numerous termination rituals (large-scale decapitation [more than twenty-five individuals] and vessel breaking in Teopanaczo, a multiethnic neighbourhood centre in the southern periphery, with strong ties to the Gulf coast [Manzanilla 2006, 2009a]; Burial 4 of the Moon Pyramid, consisting of seventeen decapitated individuals [Sugiyama & López-Luján 2006: 32]), and the beginnings of a new constructive phase in the city, which seems to mark a change in society by the beginning of the Xolalpan Phase (350–550 CE). We cannot yet assess if these changes were related to the dismantling and burning of the Temple of the Feathered Serpent in the Ciudadela, and the possible expulsion of the co-ruling house of the Feathered Serpent from Teotihuacan. Soon after, around 378 CE, a group of armed Teotihuacanos organised a *coup d'état* at Tikal.

This new Xolalpan Phase starting in 350 CE was named “urban renewal” by Millon (1973); there is a new construction level generally painted in red, set on top of former constructions. Sugiyama and Cabrera Castro (2006: 16–17) suggest a change in architectural style in the city around the beginning of

this phase, with the use of *tablero-talud* architecture, although we have already mentioned the use of this style in Formative sites in Puebla-Tlaxcala. There also seem to be changes in the territory involved in the movement of luxury goods with respect to the former phase, perhaps involving a contraction of the sphere of influence. Starbuck (1975) and Storey (1992) have also claimed that the population pressure in the city caused problems in protein procurement, although we do not have the same impression when analyzing low-status Xolalpan Phase apartment compounds such as Oztoyahualco 15B:N6W3 (Manzanilla 1993, 1996; Manzanilla, Tejada & Martínez 2000).

A huge craft centre but also a settlement that monopolised obsidian procurement from the Sierra de las Navajas and Otumba quarries for all central Mexico, Teotihuacan also seems to have fostered corridors of sites heading to enclave areas:

- In the Gulf coast (not only Matacapan, but also some areas in northern Veracruz, from where cotton cloths, marine fauna, fine clays and tropical goods came),
- The Guatemalan highland (Kaminaljuyú and sites in the Pacific coast of Chiapas and Guatemala, which provided jadeite, quetzal feathers and perhaps honey and cacao),
- Some sites in the Cuitzeo region in Michoacán (for the provisioning of pigments and Pacific molluscs).

The Teotihuacan state seems more like an octopus, with its enormous head located in the city itself, and the tentacles (the corridors of Teotihuacan sites in the surrounding regions) heading to the enclaves and zones producing luxury goods. One does not see a very powerful territorial state in it, but perhaps this is due to the fact that we are in the first phases of state formation in the Basin of Mexico.

Other raw materials, such as travertine and local alabaster-like rocks, may have come together with thin-orange vessels from southern Puebla; serpentine and other greenstones and slate came from Guerrero; chert and perhaps some cotton and avocado came from Morelos. Two foreign raw materials seem to have arrived either by direct provisioning from the Teotihuacan state or by reciprocity with foreign elites (mica from the Oaxaca Valley, and jadeite from the Motagua region) (Manzanilla 1992).

Teotihuacan displayed a complex web of ethnic and social differences woven originally into a corporate structure that tried to harmonise them, and co-rulership may have been one way to do so. Nevertheless, the detachment of the Teotihuacan state with respect to procurement of allochthonous goods (with the exception of jadeite and mica), and the seizing of this task by the powerful intermediate elites in some neighbourhoods, may have enhanced the competition between houses for production of elite goods. The network strategy of these intermediate elites was contrary to the corporate organisation of the co-rulership, and this contradiction tore the subtle network apart. This phenomenon reminds us of what Elson and Covey (2006: 14) wrote:

Paradoxically, the intermediate elite enables state administration, while its success and proliferation may promote the breakup of centralised administration into less-integrated political forms.

When the Teotihuacan state perhaps tried to control this increasing autonomy of the intermediate elite houses in the neighbourhood centres (and their interests abroad), it may have been too late. The core of the site, particularly the temples and seats of power along the Street of the Dead, were set on fire around 550 CE (Manzanilla 2003; Soler-Arechalde *et al.* 2006), and there is also evidence of the dismantling of architectural decoration and ritual destruction of deity representations, as attested in the palatial compound of Xalla (Manzanilla 2003, 2008a; Manzanilla & López Luján 2001), the Quetzalpapálotl Palace (Acosta 1964: 24), the House of Priests (Batres 1906: 15), the Viking Group (Armillas 1944), Structure 1D in the Ciudadela (Jarquín-Pacheco & Martínez-Vargas 1982: 123), and the southwestern sector of the Teopancazco compound (Manzanilla 2003; Hueda-Tanabe *et al.* 2004). Whether or not people from the corridor sites participated in the revolt is an issue that should be clarified with future research (we suspect that they did).

It is certain that the city was under great pressure due to the dramatic effects of urban settlement on its environment: deforestation, soil erosion, aquifer subsidence and decrease in springs, filled-up dams and canals and thus irregular harvests. Millon (1988: 149) added the inefficiency of the Teotihuacan bureaucracy to deal with groups of different interests, poor administration of the economy and inflexibility with regard to change. Groups outside the Basin of Mexico may have blocked provisioning routes to the city (Chadwick 1966: 2). After this event, the ruling elite may have left, followed successively by the intermediate elites and other Teotihuacanos.

During the Metepec Phase (550–650 CE) some remodelling occurred, but in many places the walls built were deficient and carelessly made of small stones. One of the effects of this huge collapse may have been the disappearance of the procurement system; Epiclassic people coming to the Teotihuacan Valley to loot the ancient city suffered from this lack (Manzanilla, Tejeda & Martínez 2000). There is a decrease in the fauna consumed (Valadez, in Manzanilla 2009b), and it is supposed that, as seen in the Michoacán lakes and the Lerma Basin to the west (García 1974; Metcalfe *et al.* 1991; Caballero *et al.* 2002), there may have been a long drought at the end of the Teotihuacan Era/beginning of the Epiclassic Period. In any case, one observes a predominance of cheno-ams in the diet and the hunting of small animals.

## The Epiclassic Period (600–800/900 CE)

The reordering of power spheres with the collapse of Teotihuacan led to a “balkanisation” of centres outside the Basin of Mexico, and a competitive atmosphere: walled sites set on top of mountains appear (Xochicalco, Cacaxtla, Teotenango, etc.). Other sites, such as Cholula and Tajín, experienced explosive growth. In the Valley of Toluca there are many new sites (Sugiura 2005). In the Basin of Mexico, it was a time of profound change in the settlement pattern, with a dispersal of the

population, a great expansion of the Texcoco region, loss of population in the Teotihuacan Valley and in the northern basin and discrete settlement clustering. Parsons (1989) saw a loss of 50% of the basin’s population.

Although Sanders, Parsons and Santley (1979) proposed that Teotihuacan was a large regional centre in the Epiclassic, we do not agree, and see very small Coyotlatelco groups in the Valley of Teotihuacan, some of which have been studied by my team inside the quarry tunnels to the east of the Pyramid of the Sun (Manzanilla, López & Freter 1996; Manzanilla 2009b).

Sanders, Parsons and Santley (1979) attested fourteen small centres, fifteen larger villages, forty small villages and 128 hamlets (Map 2.19.4). Some of the clusters (the Teotihuacan Valley, the Guadalupe cluster, the Zumpango area, the Tenayuca-Cuauhtitlán cluster), particularly in the north, are separated by an empty zone of 10–20 km (Sanders, Parsons & Santley 1979: 129). Important Epiclassic sites include El Portezuelo, Tenayuca and Azcapotzalco. Other clusters are located around the Cerro de la Estrella in Iztapalapa, and around Xico, in the Chalco area. These clusters are located on prime agricultural land, focused in a settlement of five thousand to thirty thousand people. The pattern suggests “a fragmented regional polity in which physical distance and nucleation provided a measure of insulation and protection from potentially (or actually) hostile relationships” (Sanders, Parsons & Santley 1979: 133).

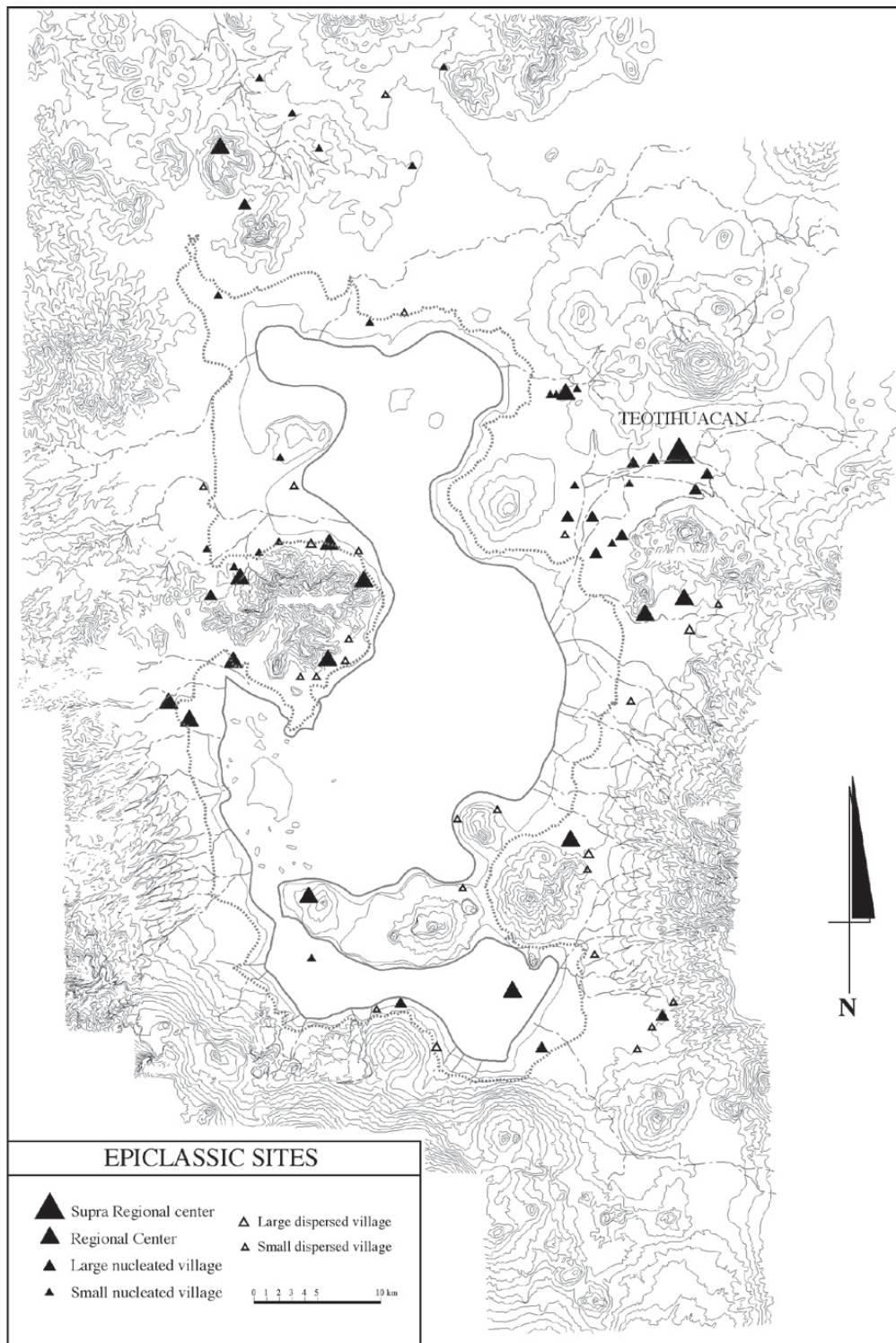
Following a suggestion by Mastache de Escobar, Cobean and Healan (2002), these small Coyotlatelco groups may have come from the Bajío region in central-western Mexico. They came to the Tula and Teotihuacan Valleys to occupy marginal and peripheral sites (such as the quarry tunnels under Teotihuacan [Manzanilla López & Freter 1996; Manzanilla & López 1998], or the La Mesa occupation in Tula). The only urban site of the Coyotlatelco Phase seems to be Tula Chico (6 km<sup>2</sup>), with a ceremonial precinct (ball courts, pyramids and residential platforms) and evidence of specialised production.

The period ends around the Popocatepetl eruption in c. 822 CE, which caused major disruptions in the Cholula region (Puebla).

## The Postclassic Period (900–1520 CE)

### The Early Postclassic (900–1150/1200 CE)

After the Coyotlatelco Phase, one sees Mazapa occupations (800/900–1150 CE) in the Teotihuacan Valley, thus inaugurating the Early Postclassic Period. The Basin of Mexico may be marginal to other developments such as the one in the Tula Valley immediately to the north, where Tula (or Tollan-Xicocotitlan) is emerging as an important polity (Mastache de Escobar, Cobean & Healan 2002). The city of Tula in Hidalgo was not as planned, nor divided into four sectors, nor as densely settled as Teotihuacan, but it was also a multiethnic settlement, and may have reached 16 km<sup>2</sup>, with sectors devoted to cult,



MAP 2.19.4. The Epiclassic settlement pattern (600–800/900 CE). (Sanders, Parsons & Santley 1979.)

administration, exchange, residence, production (particularly obsidian knapping and *Agave* fibre extraction), gathering and circulation (Mastache & Cobean 1985: 286); it may have housed c. 37,000 people (Diehl 1981: 283). Four types of residential constructions (palaces, elite residences, apartment compounds and house groups; Healan, Cobean & Diehl 1989; Mastache & Cobean 1985: 286) may hint at four strata and/

or ethnic groups in this society. Each neighbourhood seems to share a temple or shrine. The capital was surrounded by a large number of rural sites, many of which were very near the urban zone (Healan, Cobean & Diehl 1989: 249). The subsistence depended on maize, *Chenopodium*, amaranth, cactus, mesquite, *Agave* and Mexican cherries, together with white-tail deer and domestic dog.

The existence of only one civic-ceremonial centre has been interpreted as an indicator of centralisation of power. It is not easy to characterise the Toltec state (1000–1150/1200 CE). Exchange relations were maintained with the Soconusco in southern Mexico (Plumbate ware, maybe cacao), Honduras (jadeite), Guerrero (greenstone), the Gulf coast (marine shells, fine-orange wares, maybe cotton and fine textiles) and north-western Mexico (cloisonné wares, turquoise from farther north) (Mastache & Cobean 1985: 293–4).

During this timespan, the Basin of Mexico seems to have suffered a 22% decrease in its population, particularly in the southern sector. There were no large settlements (Parsons 1989).

Tula was sacked and set on fire around 1150/1200 CE, and frosts, drought and crop failures, as well as Chichimec intruders, have been mentioned as causes of its fall (Sanders, Parsons & Santley 1979).

## The Middle Postclassic Period (1150/1200–1350 CE)

A period of political fragmentation led to the establishment of the Acolhua and Tepanec polities in Texcoco and Azcapotzalco. During the Middle Postclassic (1150–1350 CE), most of the population was located in the southern basin, around Lake Chalco-Xochimilco: Sanders, Parsons and Santley (1979: 151) mentioned seven nucleated sites regularly spaced (6–8 km), Amecameca, Chalco, Xochimilco, Míxquic, Xico, Cuitláhuac, Culhuacan, as well as ten villages and 150 hamlets. Some of these may have been involved in the highly productive *chinampa* agriculture in the lake (a grid of reeds on top of which earth was set and anchored with *ahuejote* trees on the borders).

In the centre of the Basin of Mexico, Azcapotzalco and Tenayuca are the large settlements of the west, and Huexotla and Coatlinchan, those of the east, together with nine villages and 108 hamlets. To the north, there are small regional centres in Teotihuacan, Xaltocan, Cuauhtitlan (Sanders, Parsons & Santley 1979), Tepexpan and Acolman (most of which had 3000–10,000 inhabitants; Parsons 1989).

There seems to have been an important demographic increase of 175%, and Azcapotzalco appears to be the major site. Most of the other settlements are small city-states (*tlatocáyotl*), each headed by a modest nucleated centre (*altépetl*) (Parsons 1989).

## The Late Postclassic Period (1350–1520 CE)

For Parsons, this was a period of a very important increase (about 400%) in the regional demography, perhaps attaining a total population of 1,200,000 people, which would be the highest in Prehispanic times. Most of the population was residing in approximately fifty urban centres (see Smith 2008), which displayed a complex settlement hierarchy: the three

capitals of the Triple Alliance (Mexico-Tenochtitlan, Texcoco and Tlacopan), important regional centres (such as Chalco and Xochimilco), local centres (Teotihuacan, Tepexpan, Míxquic, Cuitláhuac, Zumpango, etc.) and villages and hamlets (Parsons 1989) (Map 2.19.5). After the early 15th century, most local polities functioned as administrative units within the Triple Alliance (Sanders, Parsons & Santley 1979).

Tenochtitlan may have reached 12–15 km<sup>2</sup>, a population density of 12,000–13,000 people/km<sup>2</sup> (far higher than that of Teotihuacan), and between 150,000 and 200,000 inhabitants (Sanders, Parsons & Santley 1979: 154–5). It had a regular grid of streets and canals, and was divided into four major sectors (Cuepopan, Atzacualco, Moyotlan and Teopan; Calnek 1976: 293), a four-sector disposition already present at Teotihuacan, and the sacred precinct was placed in the centre (seventy-eight buildings comprising the main temples, the ballcourt, the nobles' school or *calmécac*, etc.). The royal palaces and residences of the nobles were disposed around this ritual core. There were about seventy neighbourhoods in Tenochtitlan, some of them occupied by foreigners (Otomí, Xochimilca, Tlapanec, etc.). Some neighbourhoods were organised as guilds: in Yopico dwelt the craftsmen working with gold and silver; in Hitznahua, the fishermen; in Amantla, the weavers, feather workers and painters; in Pochtlan, the merchants; in Tlamatzinco, the producers of *pulque* (*Agave* fermented drink).

At one time there were two discrete centres on adjacent islands: Tlatelolco to the north (with its rectangular precinct, and the great market to the east) and Mexico-Tenochtitlan to the south.

Tenochtitlan was built on an island, and was thus connected to the mainland by roads and dykes: the Iztapalapa road bifurcated to reach Iztapalapa, and to Coyoacan and Xochimilco; the Tepeyácac road headed to the north, and the Tlacopan road, together with the aqueduct, to Chalpoltepec. With canoes one could reach the eastern mainland, and this transportation system was also used in the city itself.

Many different animals and plants were hunted, collected and harvested in the lake system: freshwater fish, amphibians, insects, algae, migratory birds; in the *chinampa* system the Aztecs cultivated maize, beans, *Cucurbita*, chile peppers, tomatoes, amaranth and flowers.

Ethnohistoric sources suggest that the efficiency in the production and distribution of products was achieved by intensive local specialisation and redistribution of specialised products through a hierarchical series of markets located in different types of centres (Parsons 1974: 107).

Within the economic organisation of the Aztec Empire, Berdan (1982: 77–80) recognised three separate exchange systems: tribute from the thirty-eight provinces (staple foodstuffs, textiles, and exotic luxury goods: gold, colouring materials, textiles, warriors' garments, etc.), long-distance exchange and market exchange (pigments, ointments, medicinal plants, tobacco, food, animals, hides, jewels, feather adornments, cotton, rich costumes, blades, pottery, salt, fuel, timber, flowers, maize, beans, *Salvia*, amaranth, chile peppers, vegetables, fruits, cacao, etc.). Through specialised markets there also came dogs, birds, pottery, textiles, jewels and slaves.



MAP 2.19.5. The Late Postclassic settlement pattern (1350–1520 CE). (Sanders, Parsons & Santley 1979.)

Tribute was destined for administrative activities, the military apparatus, the maintenance of the royal palace, the urban population, gifts and concessions, long-distance exchange and storage for lean years.

The Aztec Empire does not now seem as monolithic or as powerful as previously thought (Smith 1993: 18); underlying it, a new picture of diversity of important local and regional

systems and institutions emerges. The concept of *altépetl* as city-state has been stressed in this political scenario as well; governed by a *tlatoni* or several *tlatoque*, they were focused on the urban centre, surrounded by dependent towns and rural settlements (Smith & Hodge 1994: 1–11).

Political confederations are ancient in the Basin of Mexico; Carrasco (1996: 31), citing Chimalpahin, emphasised one



of the earliest during the Toltec Period (Tollan, Colhuacan, Otompan), followed by Colhuacan-Coatlichan-Azcapotzalco. By the Late Postclassic, Tenochtitlan, Tetzcooco and Tlacopan subdivided the initial imperial territory into three parts (Carrasco 1996: 48). Blanton et al. (1993: 157) have pointed out the complex regional hierarchy of central places that existed in the Triple Alliance, and that gave a more decentralised scenario than in previous times.

For the Tenochca, Rounds (1982: 64) concluded that there was a “movement from a relatively dispersed structure of power to a relatively centralised one”. In the “predynastic phase”, Tenochtitlan was ruled by a council of leaders of the different *calpulli*; the “early dynastic” was related to the beginning of the dynasty with Acamapichtli as the first ruler, probably as a response to the military pressures in the valley; and finally, the late dynastic phase started with Itzcóatl, in 1426, a phase of centralisation and empire building (Rounds 1982: 66). A cohesive corporate ruling class, which included the *calpulli* leaders as the members of the royal family, was thus created.

In the lacustrine basins of western Mexico, particularly Michoacan, another state defied the Aztec Triple Alliance: the Tarascan tributary state, centred in Tzintzuntzan (674 ha, and a population of about thirty thousand people; Pollard 1993: 32).

Tzintzuntzan was the imperial capital (and the house of the ruling dynasty) as well as the main administrative regional centre, but another eight settlements were governed by *achaecha* or lords: Eronguarícuaro, Urichu, Pechátaro, Pareo, Xarácuaro, Itziparamucu, Uayameo and Pátzcuaro; each of these was surrounded by villages and hamlets. In the Pátzcuaro Basin, three markets provided the population with goods and raw materials: Tzintzuntzan, Pareo and Asajo (Pollard 1993: 80–2). The Tarascan state was multiethnic, the organisation of this tributary state being similar to that of the Aztec.

Tenochtitlan was the capital of a vast state. It was a city that dazzled Mesoamericans and Spanish alike. It was also the culmination of a tradition in which life in cities represented the model of civilised life, in which the city was a miniature representation of the cosmos. Central Mexican cities were multiethnic and well planned; they were centres of manufacture and distribution of raw materials, goods and services; some were sacred places.

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