11

Diachronic Studies of City-States: Permutations on a Theme

Central Mexico from 1700 B.C. to A.D. 1600

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In central Mexico, a nuclear area for the evolution of ancient civilizations, the city-state has been most frequently used as an integrative and structural concept to describe and explain the dynamic social, political, and economic phenomena occurring between the fall of Teotihuacán (ca. A.D. 650/750) and the arrival of the Spaniards in A.D. 1519.[1] To a large extent this application was both encouraged and made possible by abundant ethnohistoric documents (Sanders et al. 1979:137–181), both native and Spanish, for the portion of this sequence from Tula (A.D. 900/950) to the conquest of the Aztec empire in A.D. 1521 (Table 11.1). The documentary and archaeological data support the existence of small political units, city-states, which alone or linked in confederacies, alliances, and tributary empires were important players in the post-Teotihuacán central Mexican political and economic scene. Similar archaeological and historical data support the persistence of city-states, albeit in somewhat attenuated forms, after the Spanish conquest (Charlton 1986; Gibson 1964; Lockhart 1991:23–24).

The late prehispanic central Mexican city-state was characterized by a small size, a recognized single ethnic identity (although often with a multiethnic composition), political and economic interdependence between settlements within the city-state territory, and varying degrees of political independence. The degree of political autonomy depended upon the nature and outcome of constantly fluctuating relationships—from peaceful to bellicose—between variably sized and structured city-state units linked within a regional matrix or network (Charlton, in press; Hirth 1989; Hodge 1996:20–23; Lockhart 1991:23; Marcus 1989, 1992a; Renfrew 1986a; Sanders 1970: 443–450; Smith 1992a:68). Such a city-state unit appears to have been the basic sociopolitical form for almost a millennium after the fall of Teotihuacán.

The extent to which the city-state system described above could apply to the increasingly complex sociopolitical units of the Formative period (1700–100 B.C.) antedating Teotihuacán in the Basin of Mexico or to Teotihuacán itself (100 B.C.–A.D. 650/750) is neither obvious nor readily agreed upon (see Webster, this volume, and Yoffee, this volume). The magnitude and uniqueness of Teotihuacán seem to overshadow our perceptions of all that went before, just as Teotihuacán, through the provision of images and models to emulate, influenced all succeeding cultures in central Mexico.

It is our position, however, that a city-state system did appear briefly in the Basin of Mexico prior to Teo-

Table 11.1
Archaeological Periods and Phase Names for the Basin of Mexico

Period	Phase Name	Approximate Dates
Postclassic period		A.D. 900/950–1521
Late Postclassic	Late Aztec	A.D. 1350/1430–1521
Middle Postclassic	Early Aztec	A.D. 1150/1200–1350/1430
Early Postclassic	Late Toltec	A.D. 900/950–1150
Epi-Teotihuacán/Classic	Early Toltec	A.D. 650/750–900/950
Classic period		A.D. 150–650/750
Late Classic		A.D. 500–650/750
	Metepec	A.D. 650–750
	Xolalpan	A.D. 500–650
Early Classic		A.D. 150–500
	Tlamimilolpa	A.D. 300–500
	Miccaotli	A.D. 150–300
Formative period		1500/1400 B.C.–A.D. 150
Late Terminal Formative	Tzacualli	100 B.C.–A.D. 150
Early Terminal Formative	Patlachique	300–100 B.C.
Late Formative	Cuanalán	650–300 B.C.
Late Middle Formative	Chiconauta	900–650 B.C.
Early Middle Formative	Altica	1150–900 B.C.
Early Formative		1500/1400–1100 B.C.
Initial Ceramic period		2000/1700–1500/1400 B.C.

Note: Cowgill (1996) has recently proposed a revised estimated chronology for Teotihuacán as follows: Cuanalán (650–200 B.C.), Patlachique (200–100 B.C.), Tzacualli (100 B.C.–A.D. 200), Miccaotli (A.D. 200–300), Early Xolalpan (A.D. 400–500), Late Xolalpan (A.D. 400–500), Metepec (A.D. 550–650), Early Toltec, Oxtotipac/Xometla (A.D. 650–800), Late Toltec, Mazapan/Atlatongo (A.D. 800–1000), Aztec I (A.D. 1000–1200), Aztec II (A.D. 1200–1350/1400), Aztec III (A.D. 1350/1400–1521+).

tihuacán's emergence as the sole state power. The earliest city-states were rapidly subordinated, first to the larger city-state systems of Cuicuilco and Teotihuacán and finally, through complete incorporation, to the macro state of Teotihuacán. Nevertheless they, along with less complex antecedent forms, participated in important successive peer-polity matrices (cf. Cherry and Renfrew 1986), the sociopolitical contexts out of which Teotihuacán emerged.

The development and evolution of the peer-polity matrix during the Formative period and the emergence of a single dominant state power, Teotihuacán, form two parts of a single cycle of political development. Similar cycles occurred twice before and once after the Spanish conquest (Table 11.2; Calnek 1982; Charlton 1973, 1975, in press; Marcus 1989, 1992a; Sanders 1981; Willey 1991). The second cycle began with the demise of Teotihuacán, followed by the appearance or reappearance of city-state systems that were subsequently integrated into the Tula Toltec state (Davies 1977; Diehl 1983; Healan 1989). The third and final preconquest cycle began with the collapse of Tula, and it too was followed by the appearance or reappearance of city-state systems. These later fell under the hegemony of the Triple Alliance dominated by the Tenochtitlán city-state system. Subsequent to Cortés's conquest of Tenochtitlán, a fourth cycle emerged. City-state system units or modules reappeared and persisted in modified forms through the Colonial period, only to become integrated once again within a larger political structure, this time the nation-state.

Abundant archaeological and historical data from the Basin of Mexico and adjacent regions of the central highlands provide a basis for examining the changing nature of city-states during these four cycles of political evolution over a period of approximately three millennia. The cycles are marked by the differential operation of two dominant but opposing trends in political evolution: the extension of control by one "political unit" over increasingly larger territories and greater numbers of people, and the retraction or breakdown of control, accompanied by the appearance or reappearance of territorially and demographically restricted political units (see also Marcus 1992a). The tempo of change, from decentralization to cen-

Table 11.2
Cycles of City-State Development in the Basin of Mexico

Cycle	Approximate Dates
Cycle I: Initial development; Formative and classic periods	1700 B.C.–A.D. 650/750
Part 1: Initial Ceramic, Early Formative and Early Middle Formative periods	1700–900 B.C.
Part 2: Late Middle Formative, Late Formative, and Early Terminal Formative periods	900–100 B.C.
Part 3: The City-State of Teotihuacán; Late Terminal Formative, and Classic periods	100 B.C.–A.D. 650/750
Cycle II: Epi-Teotihuacán and Early Postclassic periods	A.D. 650/750–1150/1200
Part 1: Epi-Teotihuacán/Classic period	A.D. 650/750–900/950
Part 2: The City-State of Tula; Early Postclassic period	A.D. 900/950–1150/1200
Cycle III: Middle and Late Postclassic periods	A.D. 1150/1220–1521
Part 1: Middle Postclassic period	A.D. 1150/1200–1430
Part 2: The City-State of Tenochtitlán; Late Postclassic period	A.D. 1430–1521
Cycle IV: Spanish conquest to nation state	A.D. 1521–present
Part 1: Early Colonial period	A.D. 1521–1620

tralization and decentralization once again, accelerates through time. Associated changes include population growth, agricultural intensification, increasing urbanism, and the ubiquitous presence of the city-state form (Smith 1992a:68). Both the core areas and the dominated regions expand along with an increasing emphasis on militarism (Hassig 1992:171). Ideology emphasizes sacred places, cyclic time, and human sacrifice (Boone 1984; Conrad and Demarest 1984; Hirth 1989).

Of concern in this paper are the similarities and differences in city-states through time, in terms of their structure and function, prior to, during, and following cycles of regional sociopolitical integration. The fate of city-states during these cycles of integration, whether persistence or reformulation, varied according to the principles of integration adopted by the expansionist state. Although the basic structure of the city-state persisted, the city-states antedating Teotihuacán, Tula, or Tenochtitlán differed from those that postdate the incorporation or submergence of these city-states within the larger integrative states.

Research Background

Although pre- and postconquest documentary data have contributed much to our understanding of post-Teotihuacán, and especially post-Tula, central Mexican social, economic, and political structure, they are limited in periods, areas, and detail.[2] Some of these limitations are related to the nature of the recording systems used. "Simple pictograms and calendric signs" (Marcus 1992c:5), for example, occur at Teotihuacán (cf. Berlo 1989:19–23; Cowgill 1992; Langley 1992). Although subsequently elaborated in association with public art such as murals or low relief sculptures within the context of competitive small city-states (Berlo 1989:23, 44; cf. Marcus 1992c: 435–445), no fully developed writing system is known prior to that of the Aztecs (Marcus 1992c:35).

Pictograms and calendrical glyphs on public art, in Aztec Early Colonial codices (Dibble 1971; Marcus 1992c:46–57), along with descriptions of indigenous culture and history (e.g., Gibson 1964; Lockhart 1991; Sahagún 1950–1982) support the existence of competing social, economic, and political units in the form of city-states after the breakup of Tula. Those sources are generally consistent with the presence of such city-states in central Mexico for the entire period following the demise of Teotihuacán. For Teotihuacán and earlier periods, we have no historical data and must rely on archaeological investigations. To some degree, this also applies to the entire post-Teotihuacán period, and particularly to the last part just prior to the Aztec empire, for which texts are incomplete or consist of the surviving revisionist Late Aztec codices (Marcus 1992c:146–149).

The primary archaeological data on which we rely are regional settlement patterns derived from surveys carried out between 1960 and 1975 in the Basin of Mexico and adjacent areas.[3] This research consisted of ground surveys to locate sites and to assign them to culturally significant chronological periods, usually without the application of sampling procedures for site location or surface collections (Charlton 1984a: 198–202; Sanders et al. 1979:12–30).

Although the objective was complete ground coverage, this was not always possible in areas of dense modern occupation, especially in and around Mexico City, in its suburbs in the southwestern Basin, and in modern towns elsewhere in the Basin. The survey methods were extensive, designed to document long-term settlement, agricultural, and demographic trends, and thus they provide only limited information about the internal configuration and composition of individual sites (Charlton 1984a:202–204). The results of these initial surveys have been summarized on maps and in tables such as those included here from the synthesis by Sanders and his colleagues (Tables 11.3 and 11.4; Sanders et al. 1979). Excavations of varying scales have been undertaken in many of these projects and in others too numerous to summarize here. Areal and period coverage, however, are not uniform.[4]

Cycle I: Initial Development and Formation, 1700 B.C.–A.D. 650/750

This very long cycle of initial development of city-states within the Basin of Mexico can be subdivided into three parts.

Cycle I, Part 1: Initial Ceramic, Early Formative, and Early Middle Formative periods, 1700–900 B.C.

From the initial occupation of the Basin of Mexico by sedentary cultivators about 1500 B.C. (Tolstoy 1975, 1989a, 1989b; Tolstoy et al. 1977), but possibly as early as 2000 B.C. (McClung de Tapia and Zurita Noguera 1994; Niederberger 1976, 1979, 1987), until about 900 B.C. (see Table 11.1), population tripled from about 2,000 to 6,000 people (Sanders 1981:165; Sanders et al. 1979:218). By the early Middle Formative period, the growing population had expanded from the south of the Basin to the central-west and central-east areas (Figs. 11.1 and 11.2; Parsons 1989:166; Sanders 1981:164; Sanders et al. 1979:218; Tolstoy 1975:343). Between 1150 B.C. and 900 B.C., three sites—Tlatilco, Coapexco, and Tlapacoya—were quite large, "among the largest population concentrations of their time period in Mesoamerica" (Flannery and Marcus 1994:388). However, neither the settlement-pattern data (Sanders et al. 1979:94–95) nor the excavated materials from Coapexco, Tlapacoya, and Tlatilco indicate the presence of well-developed site hierarchies, civic-ceremonial-elite architecture, strongly defined, highly restrictive status differences, or ranking systems (Blanton 1972:37–40a; Sanders et al. 1979:95; Tolstoy 1989a:97, 120–121, 1989b:293; Tolstoy and Paradis 1970).

Elaborations found in grave goods at Tlatilco (Tolstoy 1989a:101–119, 1989b:293) and the differential spatial distribution of artifacts within Coapexco (Tolstoy 1989a:87–101) and in ceramic and figurine styles at Tlapacoya (Tolstoy and Paradis 1970:347–348) have been interpreted as being due to: (1) strategic site location as related to efficient participation in Early Formative resource exploitation and trade with other regions (Charlton 1984b:23–29); (2) a combination of kinship, residence, ascribed and achieved status or rank principles as related to individuals (Tolstoy 1989a:97, 120, 1989b:293); and (3) the development of local ranked societies or chiefdoms in close contact and competition with similar societies in other areas (Flannery and Marcus 1994:385–390).

Given the data available, it is difficult, if not impossible, to determine with certainty the degree to which leadership was centralized during this period (cf. Earle 1987:289). The evident elaboration in artifact and burial complexes probably reflects a kinship-based village organization with some acquired and some inherited status or rank differentiation between lineages and between individuals.

Cycle I, Part 2: Late Middle Formative, Late Formative, and Early Terminal Formative periods, 900 B.C.–100 B.C.

Sanders describes this time period as "extraordinarily dynamic" (1981:165) with major increases in population, population expansion within the central Highlands, and changes in sociopolitical organization leading to increasing complexity, including the emergence of a chiefdom center at Chalcatzingo in Morelos (Grove 1981:384–385, 1987:439–440). Population increased from about 6,000 in 900 B.C. to 125,000 by 100 B.C. (Table 11.3; Parsons 1989:167, 171, 175; Sanders 1981:157, 165–166; Sanders et al. 1979:218).

During the Late Middle Formative period (Fig. 11.3), population growth occurred primarily within sites and zones previously occupied, resulting in the continued demographic dominance of the southern and western Basin. This pattern persisted through the

Table 11.3
Population and Distribution by Settlement Types[a] in the Basin of Mexico

Settlement Type	Cuicuilco	Chalco-Xochimilco	Ixtalpalapa	Texcoco	Teotihuacán Valley	Temascalapa	Tenayuca-Cuauhtitlán	Zumpango	Tacuba	Basin
Early Formative	2,500	1,600	480	—	—	—	173	—	1,500?	6,300
Hamlet	—	7%	56%	—	—	—	13%	—	unk.	6%
Small village	—	93%	44%	—	—	—	87%	—	unk.	30%
Large village	100%	—	—	—	—	—	—	—	100%?	64%
Middle Formative	5,000	7,000	855	2,520	683	—	4,088	—	unk.	20,000
Hamlet	—	7%	25%	4%	22%	—	11%	—	unk.	16%
Small village	—	18%	75%	—	78%	—	21%	—	unk.	20%
Large village	100%	75%	—	57%	—	—	68%	—	unk.	64%
Late Formative	10,000	29,100	9,864	10,800	6,994[b]	—	6,222	30	unk.	73,000
Hamlet	—	5%	5%	12%	35%	—	3%	100%	unk.	7%
Small village	—	12%	6%	9%	47%	—	27%	—	unk.	12%
Large village	—	48%	27%	40%	18%	—	70%	—	unk.	39%
Small center	—	36%	62%	39%	—	—	—	—	unk.	28%
Large center	100%	—	—	—	—	—	—	—	unk.	14%
E. T. Formative	20,000	22,400	8,886	24,150	43,601	—	4,060	900	unk.	124,000
Hamlet	—	8%	4%	5%	4%	—	5%	100%	unk.	5%
Small village	—	11%	7%	26%	1%	—	30%	—	unk.	9%
Large village	—	36%	42%	16%	1%	—	—	—	unk.	13%
Small center	—	45%	47%	53%	—	—	65%	—	unk.	24%
Large center	100%	—	—	—	94%	—	—	—	unk.	49%
L. T. Formative	5,000	—	—	—	93,792	675	1,368	900	unk.	101,800
Hamlet	—	—	—	—	2%	100%	54%	100%	unk.	4%
Large village	—	—	—	—	1%	—	44%	—	unk.	2%
Small center	100%	—	—	—	—	—	—	—	unk.	5%
Large center	—	—	—	—	—	—	—	—	unk.	—
Supraregional center	—	—	—	—	97%	—	—	—	—	89%
Classic	—	5,800	5,528	4,055	147,807	6,648	15,422	6,400	unk.	191,700
Hamlet	—	33%	22%	58%	2%	12%	7%	42%	unk.	7%
Small village	—	53%	30%	9%	3%	44%	23%	31%	unk.	9%
Large village	—	14%	48%	—	7%	44%	43%	12%	unk.	13%
Small center	—	—	—	33%	3%	—	27%	15%	unk.	6%
Large center	—	—	—	—	—	—	—	—	unk.	—
Supraregional center	—	—	—	—	85%	—	—	—	—	65%

(continued on next page)

Table 11.3 (continued)

Settlement Type	Cuicuilco	Chalco-Xochimilco	Ixtalpalapa	Texcoco	Teotihuacán Valley	Temascalapa	Tenayuca-Cuauhtitlán	Zumpango	Tacuba	Basin
Early Toltec	—	13,500	7,539	38,280	39,262	3,198	12,010	5,500	unk.	119,200
Hamlet	—	11%	7%	2%	2%	8%	7%	30%	unk.	5%
Small village	—	11%	6%	4%	1%	6%	30%	20%	unk.	7%
Large village	—	26%	20%	9%	14%	—	25%	17%	unk.	15%
Small center	—	52%	67%	85%	—	86%	38%	33%	unk.	45%
Large center	—	—	—	—	83%	—	—	—	unk.	28%
Supraregional center	—	—	—	—	—	—	—	—	unk.	—
Late Toltec	—	10,122	2,154	7,938	33,001	5,778	15,900	16,000	unk.	90,800
Hamlet	—	36%	75%	40%	16%	28%	20%	33%	unk.	26%
Small village	—	22%	25%	26%	21%	49%	44%	33%	unk.	30%
Large village	—	18%	—	11%	25%	23%	17%	3%	unk.	17%
Small center	—	24%	—	23%	38%	—	19%	31%	unk.	27%
Large center	—	—	—	—	—	—	—	—	unk.	—
Supraregional center	—	—	—	—	—	—	—	—	unk.	—
Early Aztec	—	50,190	4,923	unk.	unk.	unk.	unk.	5,000	unk.	unk.
Hamlet	—	7%	unk.	unk.	unk.	unk.	unk.	unk.	unk.	unk.
Small village	—	10%	unk.	unk.	unk.	unk.	unk.	unk.	unk.	unk.
Large village	—	7%	unk.	unk.	unk.	unk.	unk.	unk.	unk.	unk.
Small center	—	76%	unk.	unk.	unk.	unk.	unk.	100%	unk.	unk.
Late Aztec	—	99,600	16,040	140,500	110,000	16,000	62,000	41,000	350,000[c]	835,000
Hamlet	—	9%	9%	3%	3%	28%	12%	20%	7%[d]	7%
Small village	—	5%	13%	6%	27%	56%	20%	21%	7%[d]	11%
Large village	—	8%	13%	17%	30%	16%	22%	38%	8%[d]	15%
Small center	—	68%	66%	53%	31%	—	46%	21%	22%[d]	36%
Large center	—	10%[c]	?	—	—	—	—	—	6%[c]	4%
Supraregional center	—	—	—	21%	—	—	—	—	57%[c]	27%
(Documentary est.)	—	(125,000)	(22,000)	(140,000)	(110,000)	(5,000)	(100,000)	(110,000)	(350,000)	(962,000)[e]

Sources: Parsons et al. 1982:265, 270; Sanders et al. 1979:183–219; and Nichols 1980:122, 156.

Note: — = 0; unk. = not surveyed; ? = approximation.

[a]Settlement types are those used by Sanders et al. (1979:183–219) to report their population estimates.

[b]Including the site of Teotihuacán with estimated population of 3,000 (Cowgill 1974:381).

[c]Documentary-based estimates for large centers (10,000 persons each), Tenochtitlán-Tlatelolco (200,000 persons), and Tacuba region (Sanders et al. 1979: 154).

[d]Since no survey data are available for this important area, the combined percentage of population residing in hamlets and villages in the Tacuba region was assumed to be similar to that of Chalco-Xochimilco and Ixtalpalapa regions (22 percent), with the balance distributed in centers of varying size.

[e]The documentary estimate of the population in the Pachuca region is 100,000 persons (Sanders et al. 1979:218) which would bring the total estimated population of the Basin in A.D. 1519 to ca. 1,062,000 persons.

Late Formative period (Fig. 11.4), but it was accompanied by a population increase in the eastern and northeastern Basin (Parsons 1989:167, 171–173; Sanders 1981:166; Sanders et al. 1979:95–98). In the Early Terminal Formative period (Fig. 11.5), population growth slowed in the southern Basin but continued unabated in the eastern (Texcoco) and northeastern (Teotihuacán) sections, which at that time made up almost half of the Basin's population (Parsons 1989:175–177; Sanders 1981:168; Sanders et al. 1979: 98–102).

The accompanying changes in sociopolitical organization from 650 B.C. to 100 B.C. mark a shift from nonegalitarian, but minimally ranked, societies to state-ordered stratified societies (cf. Paynter 1989). This shift had been completed by 100 B.C.

LATE MIDDLE FORMATIVE PERIOD (900–650 B.C.). A shift in sociopolitical organization between 900–650 B.C. is signaled by the emergence of several settlement or site clusters (Fig. 11.3). Each consists of a "major nucleated settlement plus a number of smaller villages and hamlets" that "presumably reflect sociopolitical groupings" (Santley 1977:396). The clusters and the centers, roughly equivalent in size, suggest politically autonomous peer-polity units (Renfrew 1986a:1–2; see also Price 1977). The equivalence of these units must be qualified by the presence of two or three larger centers, possibly with public architecture. Their presence indicates that some polities were able to increase their size, and they may reflect the beginnings of a hierarchy of site clusters (Parsons 1989: 169), a pattern that becomes accentuated in subsequent periods.

Parsons has suggested that data on site size and site spacing within the Basin during the Middle Formative period hint at the beginnings of a sociopolitical hierarchy with two or three large centers, each greater than 40 hectares and probably with public architecture, representing the highest or regional level and eight to nine smaller centers covering from 10 to 30 hectares, possibly with public architecture (1989: 169). However, the regular spacing (8–9 km) between centers in the Chalco-Xochimilco area around the lake shore, according to Parsons (1989:169), argues against a single integrated hierarchical system. Instead, he proposes that each center was relatively autonomous, with its own territory and resources, and without much, if any, domination by regional centers (1989:169).

Table 11.4
Site Distributions in the Basin of Mexico and Tula Region during the Early Postclassic Period

Settlement Type	Basin of Mexico (3,500 km² survey area)	Tula Region (1,000 km² survey area)
Hamlets	555	35
Small nucleated villages	37	58
Small dispersed villages	83	18
Large nucleated villages	9	13
Large dispersed villages	10	26
Provincial centers	10	0
Supraregional centers	0	1[a]
Small ceremonial centers	2	1
Salt-making stations	5	0
Unknown	2	0

Source: Sanders et al. (1979:141, table 5.14).

[a]Estimated population size for Tula is 60,000 persons (Sanders et al. 1979:141).

Sanders et al. (1979:96–97) argue that although the Middle Formative settlement patterns present a range of sites from hamlets to large villages and the differentiated burials clearly involve ranking, "social stratification and hierarchical political dominance seem to be absent from the scene" (1979:97) until the Late Formative period. Similarly Santley notes that in the northwestern (Cuauhtitlán) region during the Middle Formative period, there were four spatially defined site clusters and that "these presumably reflect sociopolitical groupings" (1977:396).

In a related study, Earle uses nearest-neighbor analyses to determine if hierarchical relationships existed for Middle, Late, and Terminal Formative sites in the eastern (Texcoco) and southern (Ixtapalapa and Chalco) survey areas of the Basin (1976:206–212). For the Middle Formative sites, Earle concludes that "Level 2 sites (minimum size, 8 ha) do show regular spacing and probably represent focal points for competitive social units of some kind, perhaps still composed of locally based lineages, although this is not known" (1976:212).

These conclusions agree with those reached by Steponaitis, who worked with the same data but used different procedures. Steponaitis concludes that there was "village autonomy in political affairs" (1981: 341), with no evidence for any social or political ties "strong enough to allow one settlement to mobilize large amounts of surplus from another" (1981:341).

Figure 11.1. Basin of Mexico Early Formative settlement patterns. From Sanders et al. (1979:map 5, Early Horizon). Reprinted with permission of Academic Press and the authors.

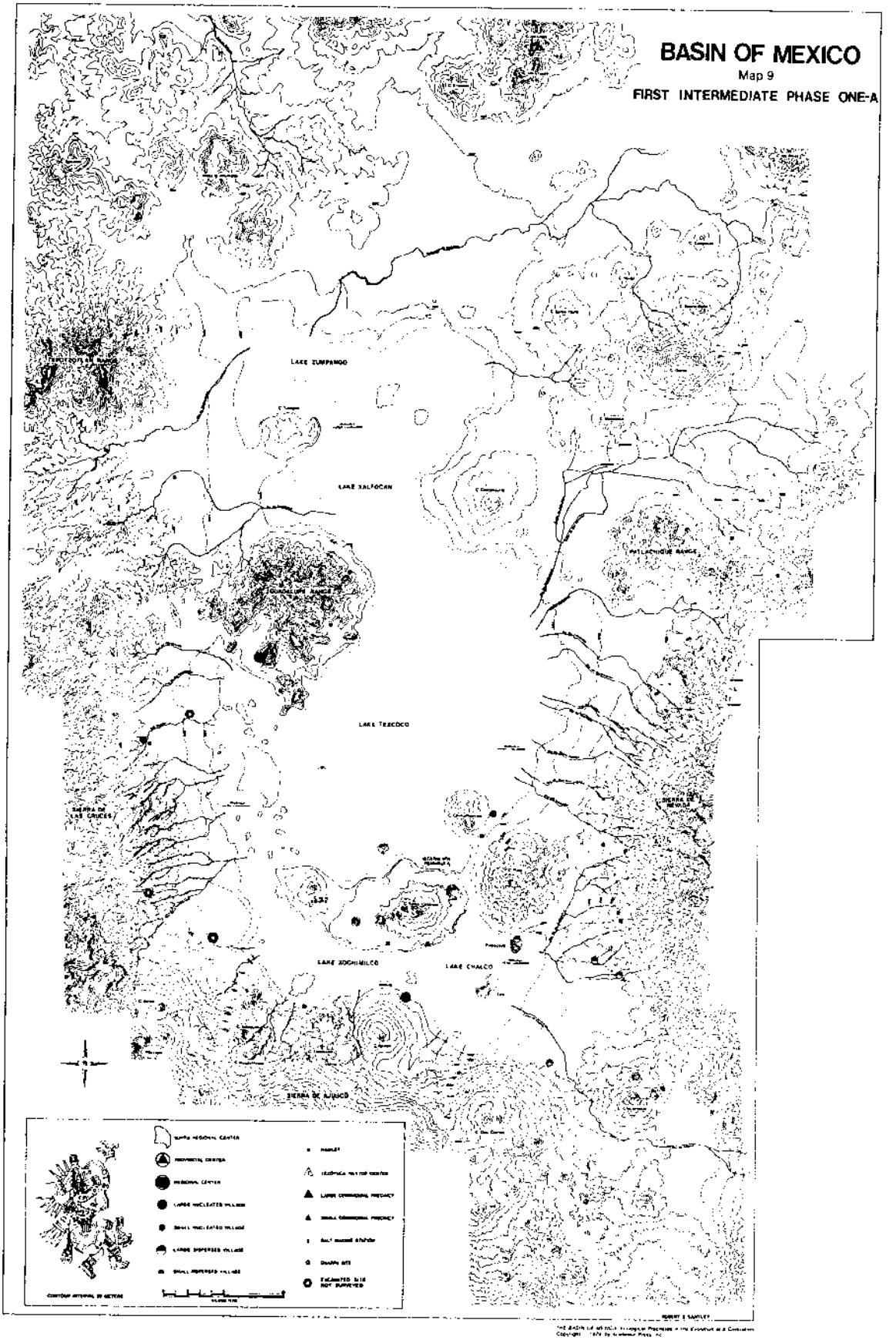

Figure 11.2. Basin of Mexico Early Middle Formative settlement patterns. From Sanders et al. (1979:map 9, First Intermediate Phase One-A). Reprinted with permission of Academic Press and the authors.

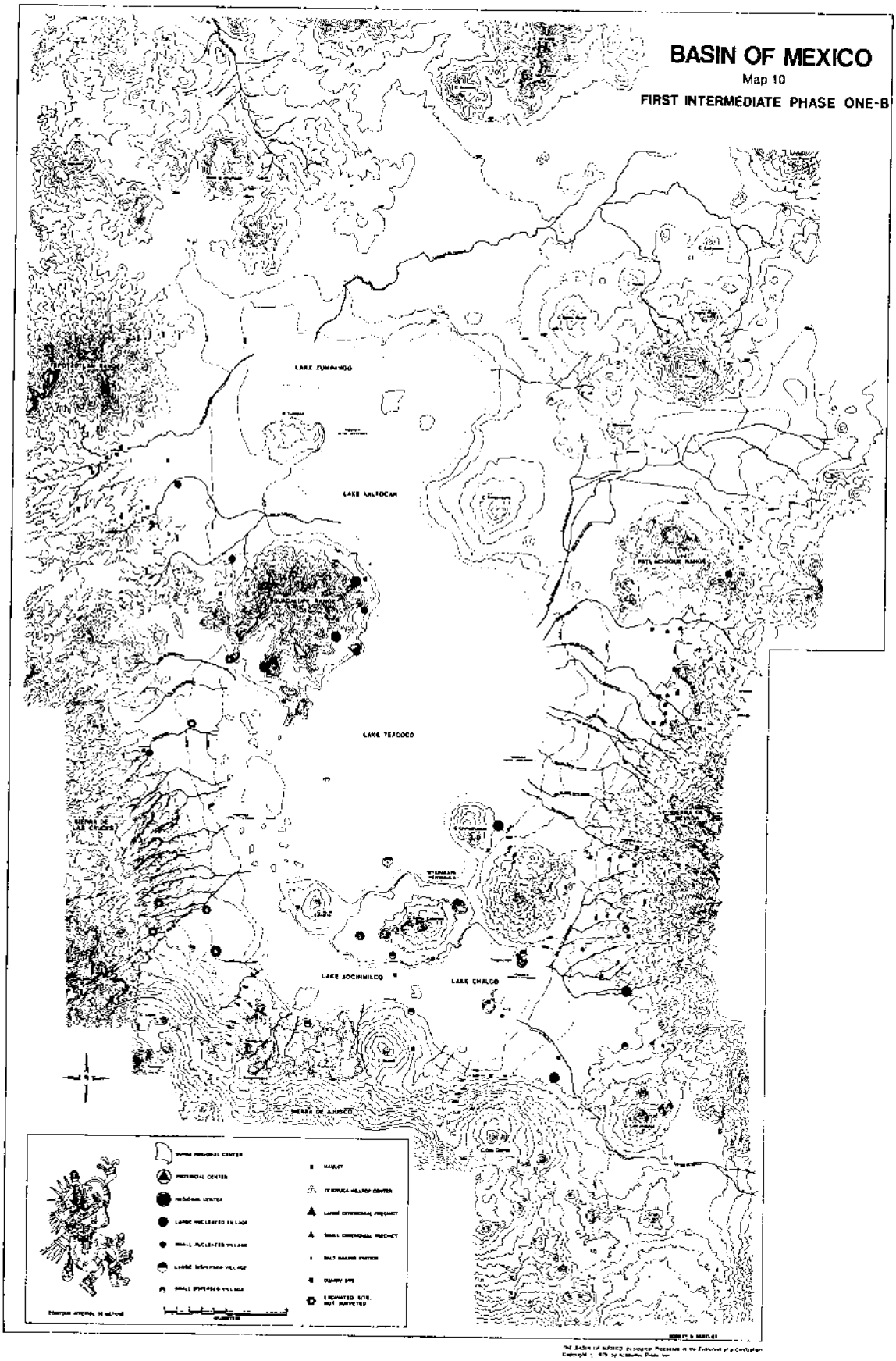

Figure 11.3. Basin of Mexico Late Middle Formative settlement patterns. From Sanders et al. (1979:map 10, First Intermediate Phase One-B). Reprinted with permission of Academic Press and the authors.

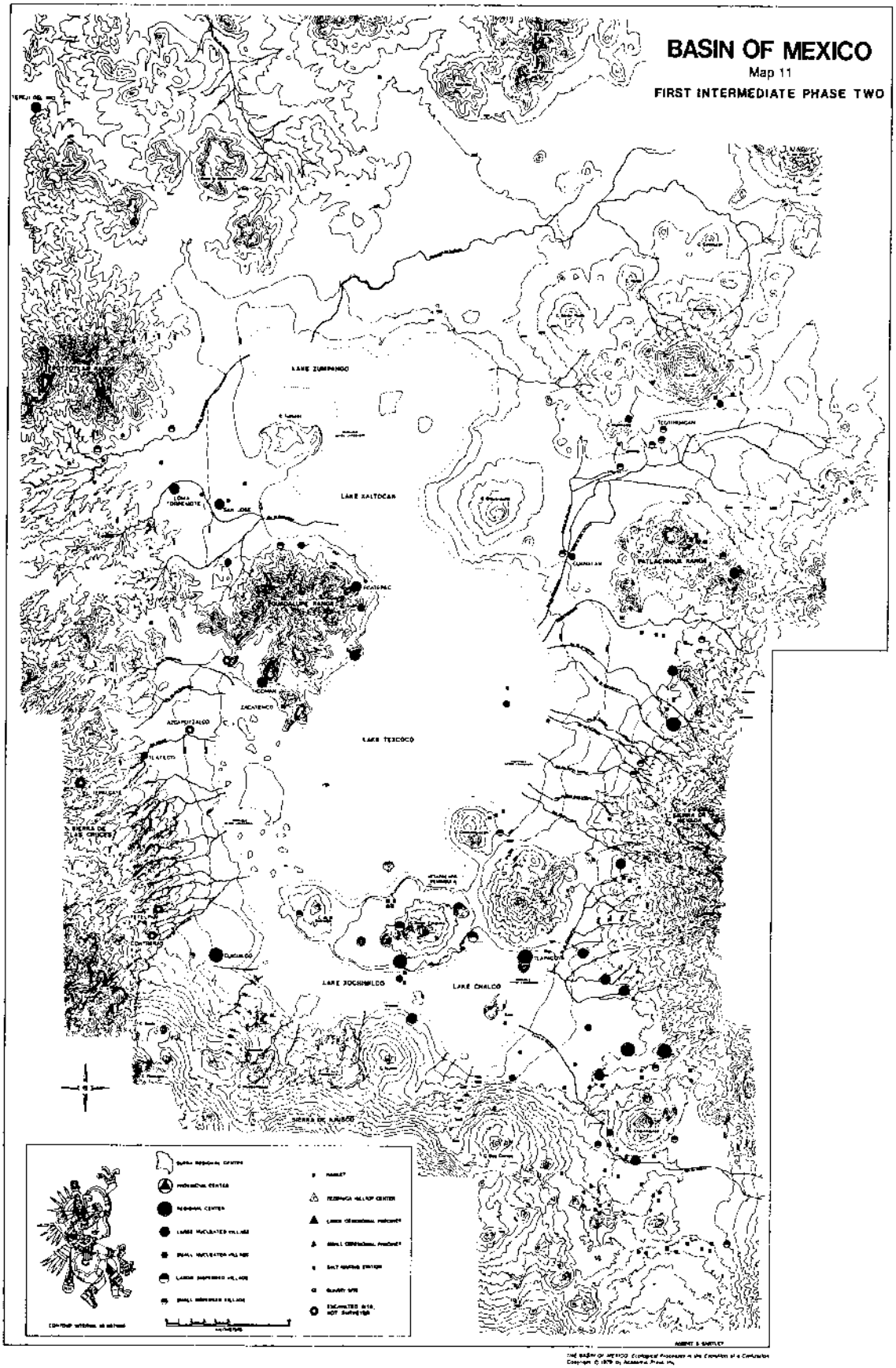

Figure 11.4. Basin of Mexico Late Formative settlement patterns. From Sanders et al. (1979:map 11, First Intermediate Phase Two). Reprinted with permission of Academic Press and the authors.

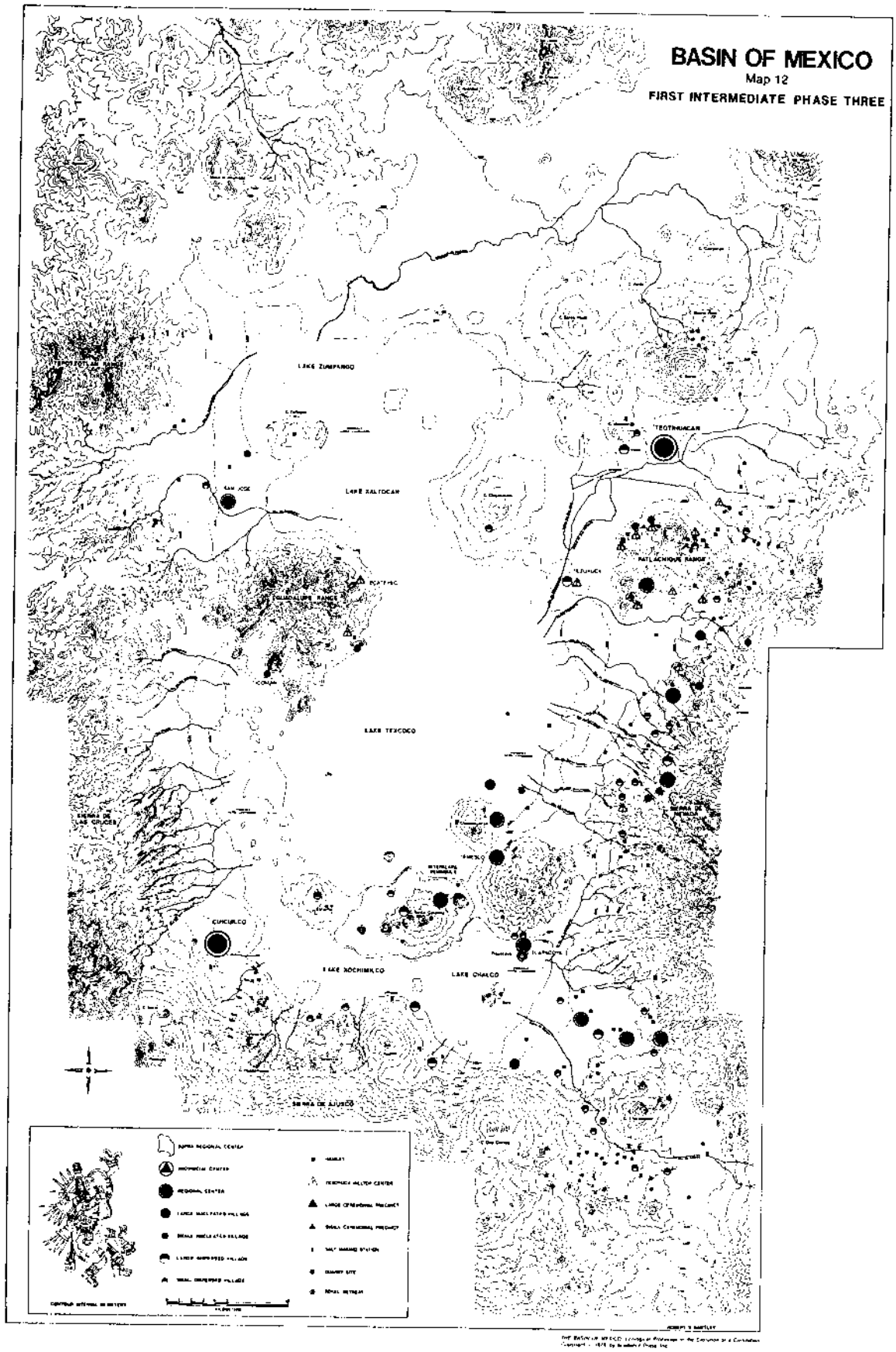

Figure 11.5. Basin of Mexico Early Terminal Formative settlement patterns. From Sanders et al. (1979:map 12, First Intermediate Phase Three). Reprinted with permission of Academic Press and the authors.

A number of problems associated with Middle Formative settlements remain unresolved, including: (1) the lack of data from Cuicuilco, (2) the large number of small sites in the Texcoco and Teotihuacán areas apparently unassociated with any major center(s) that may represent pioneering settlements, and (3) the need to demonstrate in concrete terms the interaction between a center and the dependencies within its territory (Parsons 1989:170). Nonetheless, we argue that the Middle Formative settlement pattern per se suggests the initial appearance of clusters of politically autonomous polities. Each polity probably consists of one or more landholding lineages, initially with minimal status and rank differentiation, which become increasingly economically stratified at the individual and lineage level (McAnany 1995; Price 1977; Renfrew 1986a:1–2; Sanders et al. 1979:97).

Although most centers were about the same size, the presence of two or three larger centers suggests that some polities were able to increase in size. The tendency of a few such units to be larger than the others and for most of the population to live in the regional centers persists until all are incorporated into a single state, Teotihuacán, with most of the population living in the city of Teotihuacán. However, the size differential, initially at least, probably did not denote a superior hierarchical political position for the larger sites with reference to the other polities. Essentially, the peer-polity model put forth by Renfrew (1986a) is applicable to the Basin of Mexico beginning with the Middle Formative. The peer-polity units within this matrix may have evolved from societies with minimal rank and status differentiation through economically stratified lineage-based societies to states—whose size and settlement pattern resemble Renfrew's "early state modules" or city-states (1986a:2), perhaps without passing through an intervening classic chiefdom stage (Sanders and Webster 1978:282; Santley 1984:44; but cf. Drennan 1987:317–318, 1991: 264, 282–287).

The general question of the role, if any, of chiefdoms as antecedents to state-level society in central Mexico, as well as elsewhere, is still actively discussed (e.g., Blanton et al. 1996; Creamer and Haas 1985; Earle 1987, 1991; Feinman 1991; Feinman and Neitzel 1984; Hudson et al. 1985; Marcus and Flannery 1996:155–158; Sanders and Webster 1978; Stein and Rothman 1994). Furthermore there is substantial disagreement about the definition and archaeological recognition of chiefdoms. However, a chiefdom is generally considered to represent an intermediate form of scale and organizational complexity in nonstate societies falling between tribes and states (Earle 1987:279; Feinman 1991:229; Feinman and Neitzel 1984:40).

LATE FORMATIVE PERIOD (650–300 B.C.). During the Late Formative period (Fig. 11.4), the growth in the number of sites and in site size, accompanied by the construction of monumental public architecture at some sites (usually modest, but occasionally up to 5 meters in height), permits the definition of at least a three-level hierarchy of settlements based on size and architecture (Sanders et al. 1979:97). The hierarchy includes hamlets, small and large villages, and six regional centers (Sanders et al. 1979:97). Five of the regional centers had populations between 1,000 and 3,500, while the sixth, Cuicuilco, may have had a population of 5,000–10,000 (Sanders et al. 1979:97). This disparity in population size means that there were two levels of centers—Cuicuilco as a regional center at the top in a fourth organizational level, the five other centers making up the next level down. Below them are villages and hamlets (Parsons 1989:171; Sanders et al. 1979:98).

Independent analysis of settlement data by Steponaitis (1981:342) supports the existence of a political hierarchy in the Late Formative Basin of Mexico. "In sum, the evidence . . . suggests that there were three levels of settlement hierarchy in the study area during the Late Formative" (Steponaitis 1981:346). He argues, however, that two of the six centers, Cuicuilco and CH-5, were distinctive enough to be considered regional centers by the end of the period (1981:346). Earle suggests that the five centers (not including Cuicuilco) "may represent the loosely held dominance of a central village over several neighboring and related villages" (1976:212). He proposes that the settlement patterns might reflect the presence of a chiefdom level of organization, ranked but not stratified. Similarly Sanders argues that in the Late Formative period the development of more pronounced regional settlement hierarchies suggests the possibility of a paramount chiefdom centered at Cuicuilco (1981:172, 174).

EARLY TERMINAL FORMATIVE PERIOD (300–100 B.C.). Trends noted previously continued during the Early Terminal Formative period (Fig. 11.5). The Basin's total population increased to about 125,000, expansion to the east and northeast (Texcoco and Teotihuacán) accelerated, and two regional centers, Cuicuilco and Teotihuacán, became dominant (Par-

sons 1989:175–179; Sanders et al. 1979:98–104). The population of each center has been estimated to be between 20,000 and 40,000 (Parsons 1989:175; Sanders et al. 1979:101). In addition to these two large urban or proto-urban regional centers with major public architecture, there were ten small regional centers (Parsons 1989:175–179; Sanders et al. 1979: 99), each with 3,000–7,000 inhabitants and modest amounts of public architecture. The pattern of a large number of equivalent peer polities associated with the two larger units continues from the Middle Formative period. The difference at this time is to be found in the establishment of one of the two centers, Teotihuacán, in the northeastern area of the Basin. Cuicuilco and Teotihuacán probably headed two city-state systems, each including smaller, subordinate city-state units, represented by the smaller centers.[5]

Analyses by Brumfiel suggest that these systems of site hierarchies mark the appearance of a "state-like political organization" (1976b:247). Earle proposes that the smaller centers at this time were integrated "into a larger state organization" and that they lost their independence (1976:219). Studies by Steponaitis detail some aspects of the relationships between centers during the Early Terminal Formative period (Patlachique phase). He proposes "that Teotihuacán and Cuicuilco were political centers of roughly equivalent order and together formed the apical level of the settlement hierarchy within the Valley of Mexico" (1981:351). These would be "Primary Regional Centers" (Steponaitis 1981:252, 353) and would constitute a fourth level in the settlement hierarchy. Below this level were two secondary regional centers, one in the Texcoco region and the other in the Lake Chalco area. "Each of the two regional centers in the study areas appears to have formed the nucleus of a geographically discrete cluster of local centers and villages" (1981:352). Although these two secondary regional centers might have been independent at the beginning of the period (see also Blanton et al. 1993:115, 122–123), they were later incorporated into the increasingly powerful centers of Teotihuacán and Cuicuilco.

We would suggest that the peer-polity units, from their initial emergence in the Formative period, were characterized by a tendency, possibly ecological and/or political in origin, for a few such units to become much larger than the others. These larger units began a process of dominating and incorporating smaller units and their populations, a process that accelerated through time until one center, Teotihuacán, essentially incorporated all the others and became the single state dominating the Basin and much of the central Mexican highlands (see also Marcus 1992a).

Sociopolitical organization, 900–100 B.C.

By the Early Terminal Formative period state-level sociopolitical organization had certainly emerged in the Basin of Mexico. The major problem is to determine the sociopolitical significance attached to the settlement clusters of the Late Middle Formative and Late Formative periods. As noted above, Earle proposes a chiefdom level of organization for the Late Formative clusters, as does Spencer, who suggests that the fast growth of Teotihuacán and Cuicuilco "was beginning to approach the operational limits of a chiefly political economy" and that the development of state organization during the Terminal Formative period involved a rapid change in administrative structures (1990:20). Brumfiel suggests some type of undefined pre-state organization for the larger sites (1976b: 247), and Steponaitis argues for the evolution of increasingly more comprehensive forms of sociopolitical organization during the Late Formative without ever saying what they might be (1981:346). Drennan concludes that chiefdoms do not continue beyond the Late Formative period in the Basin of Mexico and that Middle and Late Formative developments represent only one of several possible trajectories of chiefdom formation (1991:272). Bennyhoff even suggests that Late Formative Cuicuilco "may well represent the first city-state in the Valley of Mexico" (1967:21).

During the late 1960s and the 1970s, the concept of the chiefdom was proposed as an intermediate stage between egalitarian societies and states/civilizations in the Basin of Mexico (e.g., Sanders and Price 1968; Sanders et al. 1979; Santley 1977). In his research at the Late Formative site of Loma Torremote, Santley concluded that the architecture, the distribution of artifacts, and the burial patterns were consistent with a model of ranked lineages, which he likened to a Polynesian *ramage* system and complex chiefdom organization (Sanders et al. 1979:328; Santley 1977:358–359). Although he noted that the sumptuary rules at Loma Torremote, as evidenced in burial goods, did not adequately isolate chiefly persons and mark their higher status (Sanders et al. 1979:330; Santley 1977:359), Santley argued that the limited mortuary data from other sites in the northern Basin did support a model of hierarchical regional

polities, as indicated by the settlement-pattern data (1977:409–410).

The main problems with the application of the chiefdom concept to Late Middle Formative and Late Formative Basin of Mexico sociopolitical units are to be found in the absence, with few exceptions (Tolstoy 1989a), of the usual archaeological manifestations (funerary monuments or monumental ceremonial architecture) of a complex chiefdom's ideology and economic redistribution (cf. Sanders and Webster 1978; Santley 1984). Subsequent states in the Basin—as in Mesopotamia—do not seem to build on or incorporate antecedent chiefdom structures (Yoffee 1993a; see Wright 1994 for an alternative position). Sanders and Webster (1978) and Santley (1984, 1993) have subsequently proposed a scenario similar to that recently elaborated by Binford (1983:214–232) and Yoffee (1993a) where states in the Basin developed from stratified polities that formed in the context of tribal "big-man" organizations. Status in such organizations is based on achievement and patron-client relations; rank and status in chiefdoms are ascribed according to kinship organization.

Sanders and his colleagues argue that states can develop from stratified societies without an intervening chiefdom stage (Sanders and Webster 1978:282; Santley 1984, 1993). Stratified societies are those with economic stratification but without the institutions—social, economic, religious, or political—that maintain stratification in states (Webster, this volume). In support of their argument, Sanders and Webster note the absence of tombs and funerary cults—characteristics of complex chiefdoms elsewhere in Mesoamerica (Flannery and Marcus 1994; Sharer and Grove 1989)—at Late Formative centers such as Cuicuilco. The Late Formative regional settlement hierarchy documented by Steponaitis and Earle could be the signature of either a stratified society (cf. Bennyhoff 1967) or a complex chiefdom. Internal features of their capitals should differentiate them from each other. Unfortunately, the currently available data from the regional centers are not adequate to resolve these questions.

Drennan (1991), noting the same problems, argues that the Basin of Mexico sequence and that of the Valley of Oaxaca represent one kind of trajectory for chiefdom development, where societies mobilized "resources toward public works programs designed to create communal ritual space" and "show modest internal economic differentiation in regard to wealth and status" along with "some signs of early economic differentiation and interdependence" (1991:272). These features are contrasted with a trajectory for chiefdom development that "mobilized resources toward fierce status competition focused on the person of the chief" (Drennan 1991:272). The Olmecs, he argues, combined the characteristics of both trajectories.

Similarly Feinman (1995:267; see also Blanton et al. 1996:7) has recently argued that although craft specialization, long-distance trade, and status competition (elements of a "network mode" of political economy) were present in Formative period polities in the Basin, their political economies by the Late Formative tended to stress a "corporate mode" or strategy. This strategy "emphasizes collective ritual and its potential manipulation, public construction, integrated social segments, the importance of kinship affiliation, and relatively suppressed economic differentiation (more egalitarian access patterns)" (Feinman 1995:267).

Even taking into consideration the caveats regarding the nature and quality of the available data, it is obvious that significant political evolution continued during the Late Formative period (Steponaitis 1981: 346), elaborating the structure and forms present in the Late Middle Formative. This evolution of political structure involved an increase in the size of the polities and a disproportionate increase in the size of two of them, Cuicuilco and CH-5, both in the southern Basin. It is probable that the settlement-pattern changes reflect the evolution of structured economic and (probably) ideological interaction within polities that were lineage-based. Such economic differentiation between lineages and between individuals probably began with the development of a food-producing economy in the Basin of Mexico and is first noted in the Early Formative period.

There is no evidence for a highly elaborated ritual veneration of apical ancestors, for a complex system of ranked lineages, or for leadership/chiefdomship positions legitimized in the idiom of ancestors. There is, however, evidence for a recurrent theme in the ideology of chiefdoms, "symbols of individual position within a society as seen most vividly in the burials" (Earle 1987:299). These symbols are often manifested in material terms in foreign objects exchanged, sometimes over great distances, among high-status individuals for "the esoteric knowledge and power they embodied" (Earle 1987:299; Helms 1993:28–51; cf. Flannery and Marcus 1994:389, referring to the Early Formative).[6]

These Late Formative period societies were directly antecedent to the city-states of the Early Terminal Formative period. Since the previously noted pattern of one or more centers being larger than the others continues, we are confronted with a matrix of polities, without complete parity between units, a kind of *primus inter pares*, in which the large centers of Cuicuilco and Teotihuacán are the *primi*. Available data do not clearly indicate the reasons for such differences, although we suspect that locational advantage for trade and agricultural intensification were important, along with political factors that encouraged nucleation (Charlton 1984b; Nichols 1980, 1987, 1989). This tendency, coupled with subsequent particularistic historical events like the eruptions of Mount Xitle and the destruction of Cuicuilco, ends with the complete dominance of the Basin by one city-state, Teotihuacán.

Cycle I, Part 3: The city-state of Teotihuacán, Late Terminal Formative and Classic periods, 100 B.C.–A.D. 650/750

The stable period of Teotihuacán's unquestioned dominance in the Basin of Mexico (Figs. 11.6 and 11.7) and adjacent areas of central Mexico began about 100 B.C. and continued through the Classic period (Millon 1973, 1981, 1988, 1992; Parsons 1989:179–189; Sanders 1981:175–176; Sanders et al. 1979:105–129). This period is approximately equal in length to the period during which complex societies in the form of city-states first developed (Cycle I, Part 2, 900–100 B.C.).

Sanders and his colleagues have suggested that after the destruction of Cuicuilco by a volcanic eruption, which left Teotihuacán as the sole powerful polity in the Basin of Mexico, the Basin's overall population might have declined from 140,000 to 100,000/120,000 at the beginning of the Late Terminal Formative period (Parsons 1989:179, 183; Sanders 1981:175–176; Sanders et al. 1979:107). After the demise of Cuicuilco, there was probably also a resettlement of 80–90 percent of the population (80,000–94,000) in the city of Teotihuacán (Millon 1981:221–222, 1988:102, 1992:344, 351; Parsons 1989:183; Sanders 1981:157, 176–178; and Sanders et al. 1979:114).

The Basin's population subsequently increased to about 230,000 and remained, as far as can be ascertained, at approximately this level through the Classic period (Parsons 1989:179, 183; Sanders 1981:157, 175–176; Sanders et al. 1979:107). The city of Teotihuacán's population grew to between 125,000 and 150,000 (Millon 1988:102, 1992:344; Parsons 1989:183; Sanders 1981:157). However, the proportion of the Basin's population resident at Teotihuacán declined from 80–90 percent to 50–65 percent as a result of a very rapid, selective repopulation and resettlement of the Basin directed by Teotihuacán at the beginning of the Classic period (Parsons 1989:183; Sanders et al. 1979:114; Millon 1981:219–222, 1988:103). The dominance and power of the Teotihuacán polity is reflected, first, in the extreme nucleation of the population during the Late Terminal Formative period (Fig. 11.6) and, subsequently, by the massive reorganization of the city and the structured reoccupation of the Basin and adjacent portions of the central plateau (Figs. 11.7, 11.8; Manzanilla 1995:156; Millon 1988:103; Sanders et al. 1979:114, map 20).

Teotihuacán as a City-State

The tendencies of the proto-urban and urban components of earlier settlement patterns in the Basin of Mexico to increase disproportionately in size by incorporating people from other settlements culminate in Teotihuacán's concentration of almost all the Basin's population in the city at the beginning of the Late Terminal Formative period. This action, along with the subsequent redistribution of population at the beginning of the Classic period, reflects the extent to which the Teotihuacán state had control over people in the Basin as well as in a larger region (Millon 1988:136–142). Such control extended to inner as well as outer hinterlands in central Mexico, some 25,000 square kilometers in extent, with a total population of 300,000–500,000 (Millon 1981:219–223, 228, 1988:113–114).

The evidence for population relocation and control, the massive construction program at Teotihuacán (Millon 1973:51–54, 1988:110–113, 1992:351; Millon et al. 1965), the evidence of continued urban planning and building, and the extension of power well outside the Basin of Mexico (Millon 1981:212, 214–217, 221, 1988:1992) attest to the existence of a state system no later than the beginning of the Late Terminal Formative period and its persistence to the final collapse (Millon 1988:110–113, 136–137). We suspect that stratified state systems were probably present in the Basin of Mexico at least as early as the Late Formative period, as indicated by the two re-

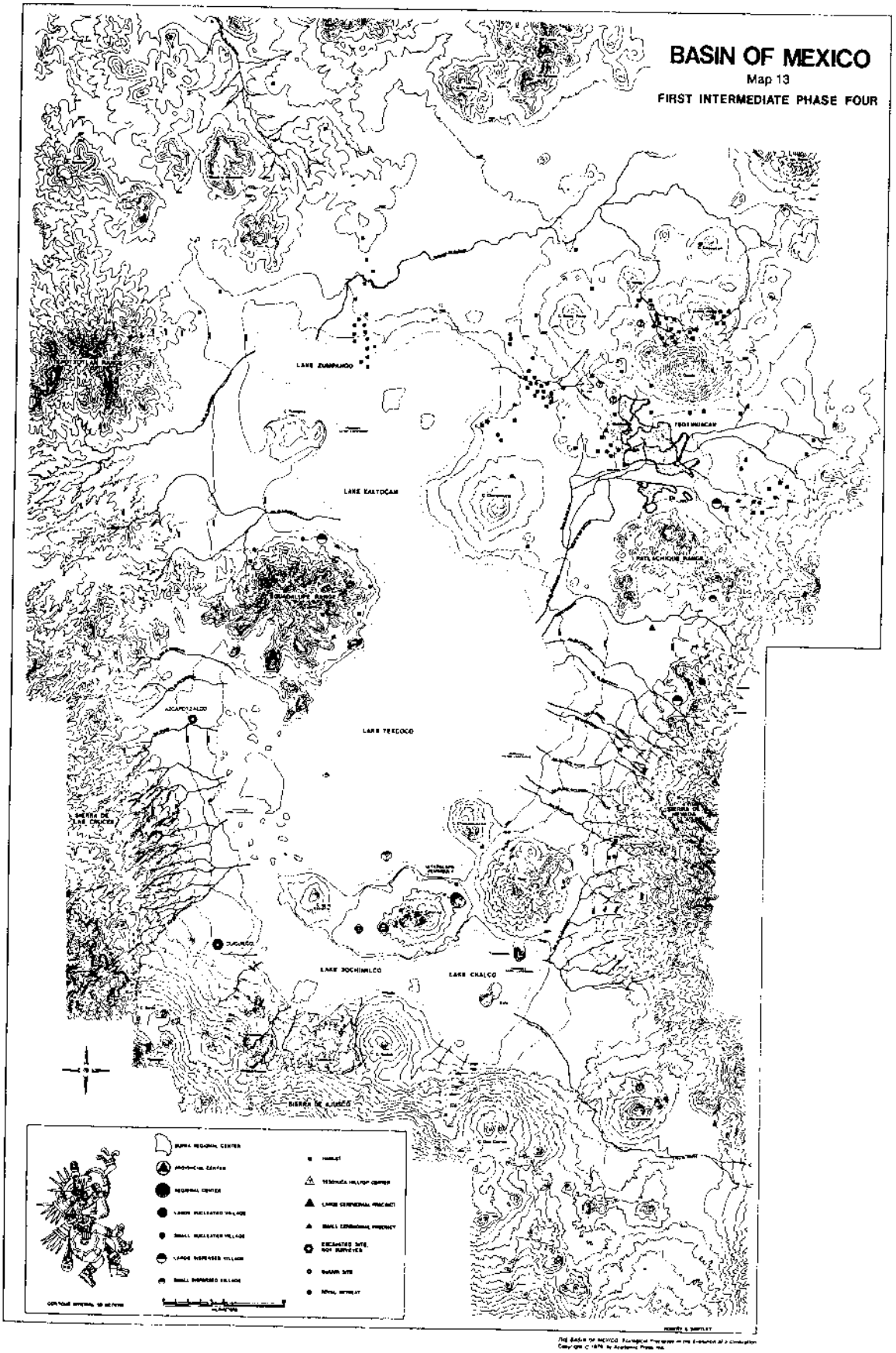

Figure 11.6. Basin of Mexico Late Terminal Formative settlement patterns. From Sanders et al. (1979:map 13, First Intermediate Phase Four). Reprinted with permission of Academic Press and the authors.

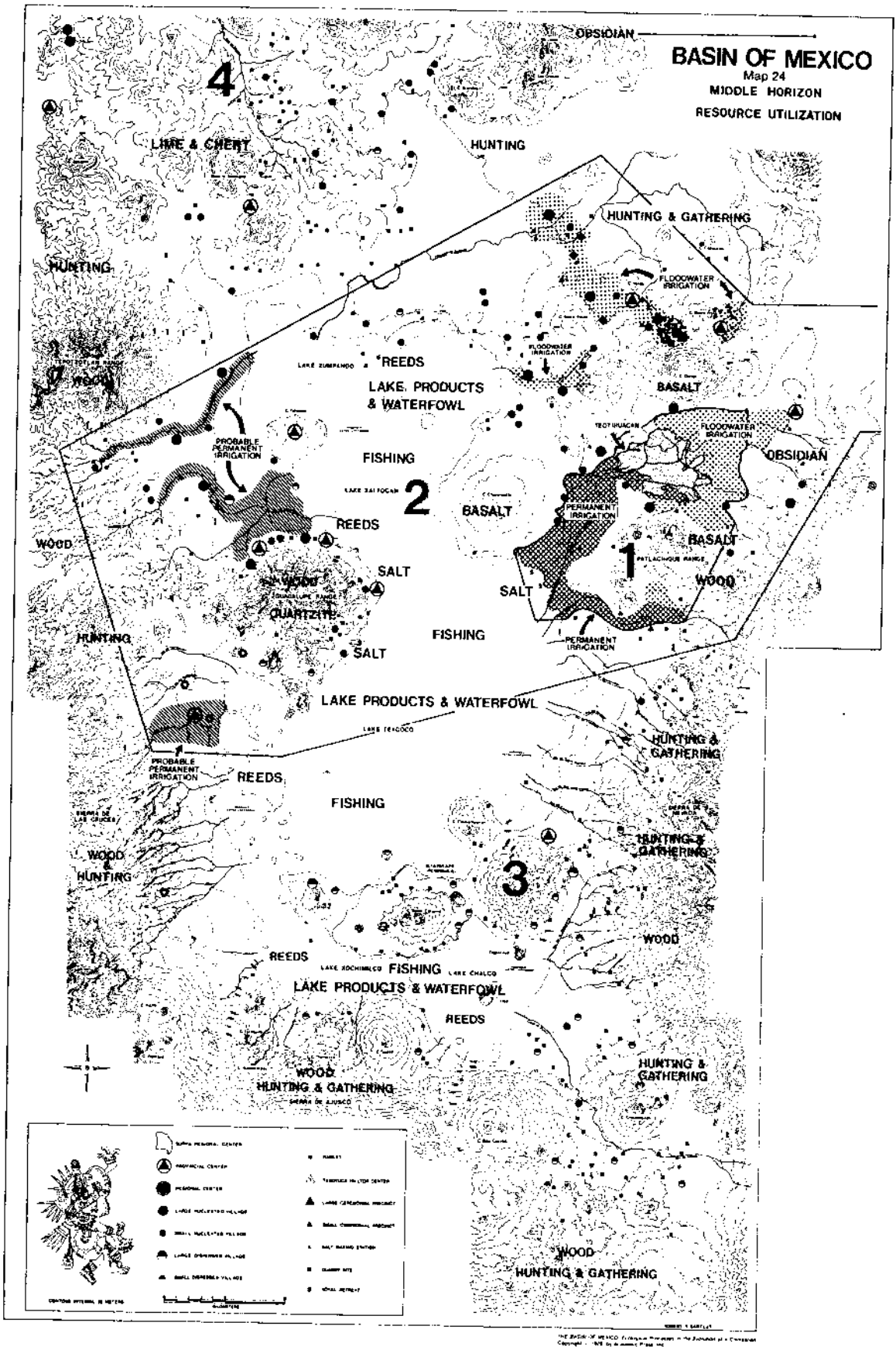

Figure 11.7. Basin of Mexico Early Classic settlement patterns and resource utilization. From Sanders et al. (1979:map 24, Middle Horizon resource utilization). Reprinted with permission of Academic Press and the authors.

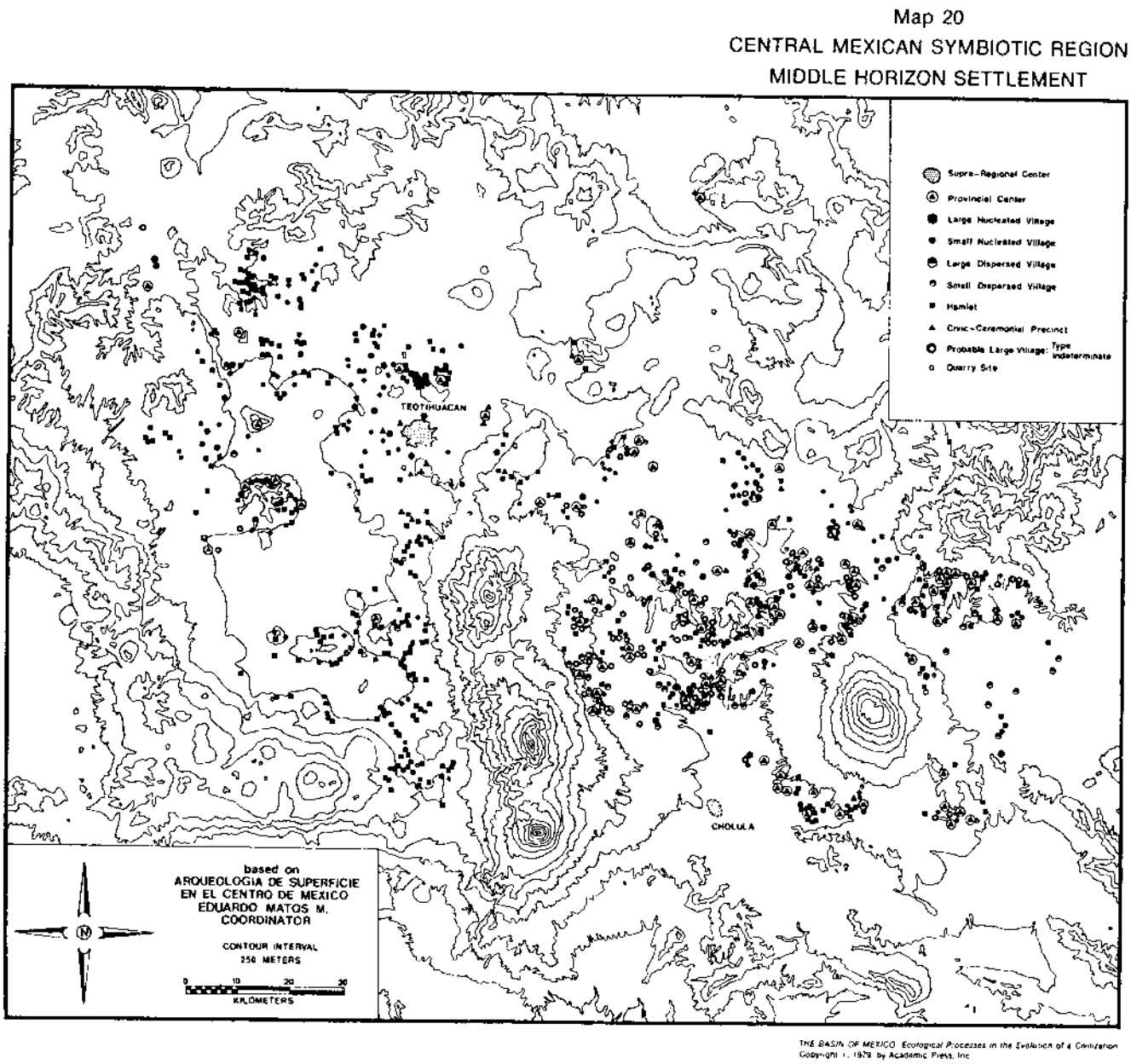

Figure 11.8. Central Mexican Teotihuacán settlement system. From Sanders et al. (1979:map 20, Central Mexican Symbiotic Region Middle Horizon settlement). Reprinted with permission of Academic Press and the authors.

gional city-state systems of Cuicuilco and Teotihuacán, which integrated between them most of the smaller polities in the Basin.

Although class stratification is documented at Teotihuacán, details on the early period and the highest and lowest classes are not well known (Cowgill 1993; Millon 1981:212–217, 1992; Sempowski 1994; Spence 1994). Recent research at the Temple of the Feathered Serpent has provided additional information on the power actualized by the top leader(s) at Teotihuacán (Cabrera Castro et al. 1989, 1991; Cabrera Castro and Cabrera 1991; Cowgill and Cabrera 1991; Serrano Sánchez 1993; Serrano Sánchez et al. 1991; Sugiyama 1991, 1992). However, there are no "identifiable, recognizable portraits or idealized representations of the individuals at the very top" (Millon 1981:213). Millon has proposed that, after the sacrifices in the Temple of the Feathered Serpent were made, individual rulership effectively became collective leadership, remaining so until the end of Teotihuacán (1992:340; but see also Grove 1994).

It is our argument that Teotihuacán, a single, regionally dominant city-state with enormous inner and outer hinterlands, represents the logical outcome,

reductio ad absurdum, of the operation of basic principles of growth and integration guiding cultural evolution in the Basin of Mexico (Kroeber 1944), beginning in the Early Formative. Sanders and his colleagues state that their "model for the . . . [Classic period] is that of a single, highly evolved polity that had complete control over its immediate hinterland" (1979:127). Millon would include the outer hinterlands as well (1992:222–223). Sanders and his colleagues go on to describe this regional state as an unsound, inefficient, but long-lived primate system (1979:127–128).

All the evidence recovered to date points to a highly centralized Teotihuacán state system with effective wielders of power located in the city of Teotihuacán. The success of Teotihuacán in eliminating rivals and extending control over a large area would seem to preclude it from being considered a city-state according to Trigger's definition (1993:8–14; cf. Renfrew 1986a), which necessitates a city-state being in a network of adjacent, competitive city-states. Teotihuacán still retained some aspects of a city-state, albeit a gargantuan one, without an immediate network of independent polities within which to interact. These include a heavily urbanized, extremely large population consisting of all segments of society, food producers and nonfood producers, an emphasis on urban craft production for both rural and urban sectors of society, an intensification of agricultural production near the city, an economic system integrating rural and urban sectors, and widely shared ideological symbols (Trigger 1993). However, some other characteristics are suggestive of a territorial state, as defined by Trigger: territorial extent, early monumentality of construction, and a "hierarchy of administrative centers" (even though distorted by a disproportionately large number of people, food producers and craft specialists living at Teotihuacán, the top of the hierarchy).

In our opinion, Teotihuacán is an example of a city-state whose singular evolution continued in a context lacking significant equivalent rivals and possessing a relatively low regional population density, one that persisted until the Late Postclassic period (Sanders 1981). The mechanisms—ideological, political, economic, social structural—that underwrote Teotihuacán's centripetal integration and organization of central Mexico and the populations of its hinterlands are imperfectly known, both for Teotihuacán and for the surrounding regions. As far as we can tell, however, they persisted to the end of Classic period, when the extreme centralization characteristic of Teotihuacán broke down, never to appear again in the same configuration.

Cycle II: Epi-Teotihuacán and Early Postclassic periods, A.D. 650/750–1150

The development of the state (Teotihuacán in central Mexico), created a precondition for later state formation (Bray 1977:394; cf. Kohl 1987:30 on the Near East). The processes of state formation in central Mexico after Teotihuacán were not identical to those leading to Teotihuacán, in part because the knowledge and memory of Teotihuacán had created a cultural context previously unknown and in part because the breakup of Teotihuacán initiated processes previously unknown or of minor importance. These processes, which included warfare and tributary-state formation, were initially strongest in areas outside of, but adjacent to, the Basin of Mexico. It is probable that the militaristic tributary state began to develop in those areas during the Epi-Teotihuacán period. Once in operation, these processes were influential in the rise of two successive macroregional states, Tula (Cycle II, Part 2) and Tenochtitlán (Cycle III, Part 2).

In many aspects, the events of Cycle II foreshadow those of Cycle III (A.D. 1150–1521). Each cycle consisted of two parts, one of multiple, small, independent polities, the other of large integrative structures (Charlton 1973:421; Sanders 1981:186). Characteristic of Part 1 (Epi-Classic or Epi-Teotihuacán) of Cycle II, following the end of Teotihuacán but prior to the rise of Tula, were population movements and the establishment of small independent sociopolitical units in the Basin of Mexico and in adjacent areas of central Mexico (Figs. 11.9 and 11.10; Diehl and Berlo 1989:3–4).

These sociopolitical units were probably equivalent to the city-states (*altepetl,* Hodge, this volume) encountered by the Spaniards in central Mexico in A.D. 1519 (Bray 1972a). The Epi-Teotihuacán period, between 200 and 250 years in length, ended with the rise of Tula as the first new major post-Teotihuacán state system in central Mexico. Over the next 200–250 years, Tula integrated much of central Mexico (Figs. 11.11 and 11.12) and influenced distant areas of Mesoamerica such as Yucatan (Charlton 1973, 1975, 1978; Diehl 1981, 1983, 1993; Healan 1989; Marcus 1989, 1992a:398–399; Sanders 1981:186; Sanders et al. 1979:129–149; Smith 1992a:55–56).

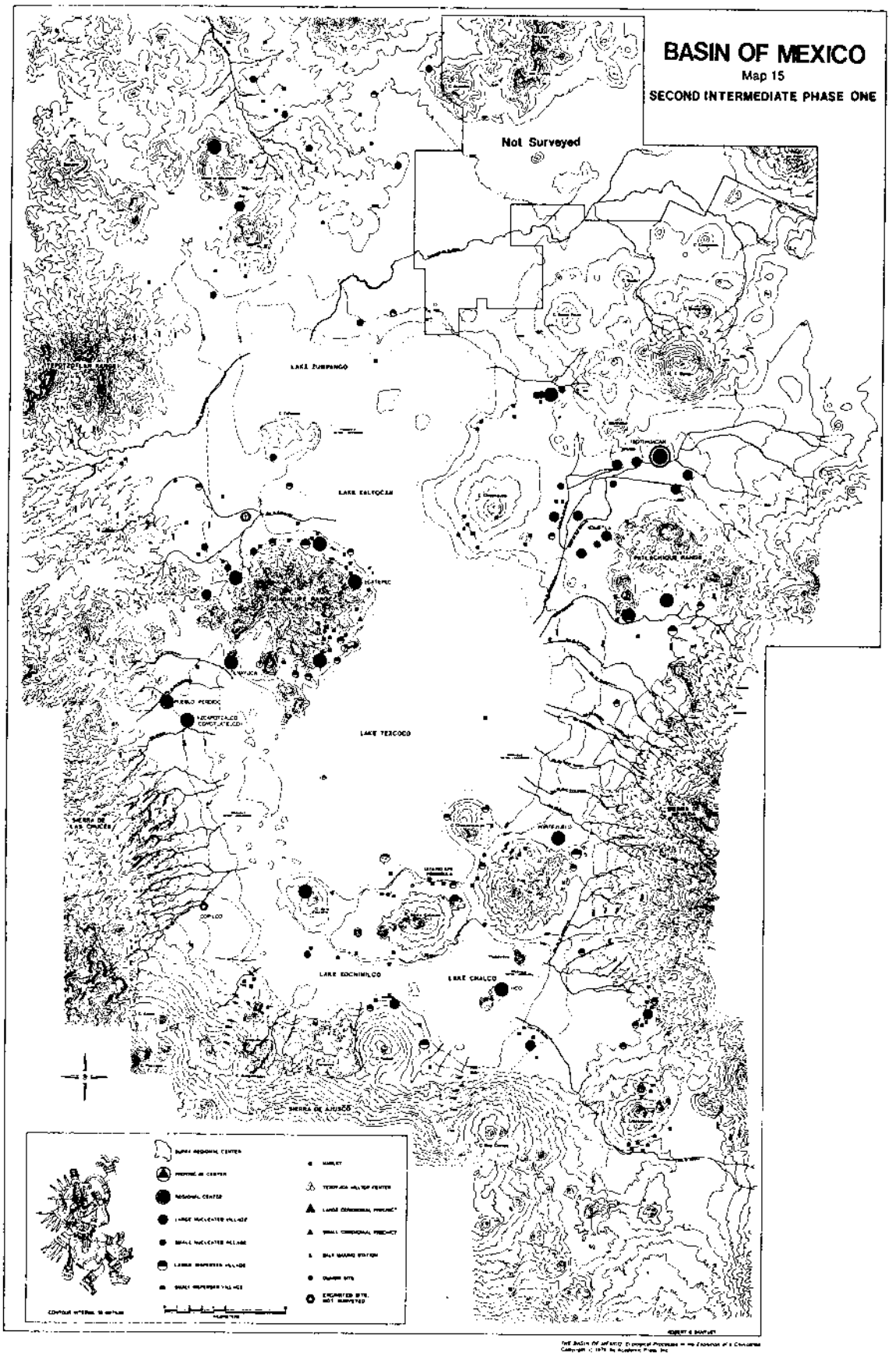

Figure 11.9. Basin of Mexico Epi-Teotihuacán settlement patterns. From Sanders et al. (1979:map 15, Second Intermediate Phase One). Reprinted with permission of Academic Press and the authors.

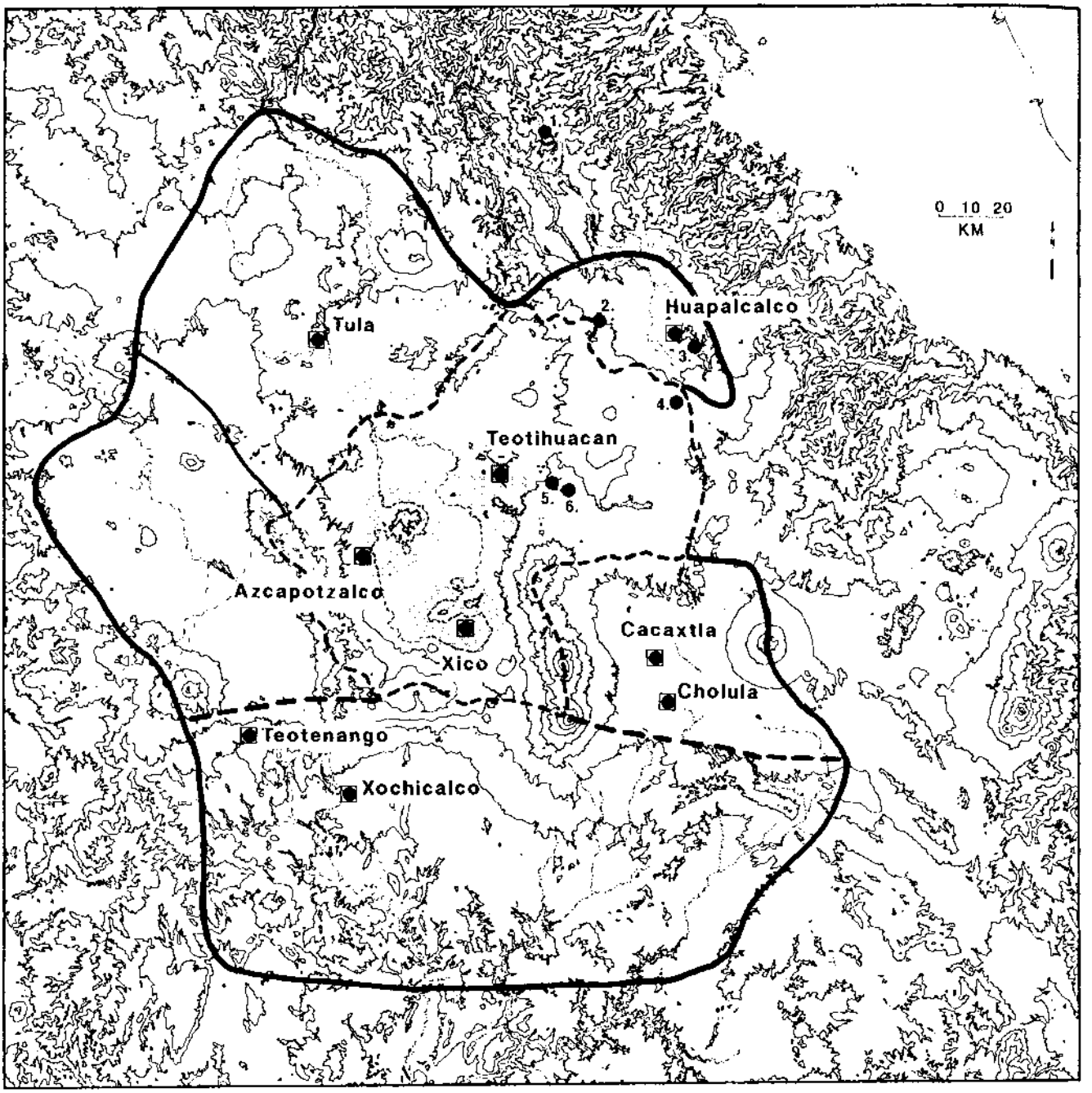

Figure 11.10. Central Mexican Epi-Teotihuacán settlement patterns. (1–6 obsidian source areas.) Contour interval 500 meters. Base map derived from the Detenal 1:250,000 Series maps NE 14–1 to NE 14–3 (1970), NE 14–4 to NE 14–6 (1976), and NF 14-10 to NE 14–12 (1970). Shaded areas in the Basin of Mexico approximate continuous settlement (Sanders et al. 1979:map 15). Drawn by Cynthia L. Otis Charlton.

Cycle II, Part 1: Epi-Teotihuacán (Early Toltec) period, A.D. 650/750–900/950

The chronological and settlement pattern frameworks we are using for the two indigenous post-Teotihuacán cycles (II and III) are ultimately based on changes in ceramic complexes. A recent series of excavations has provided an opportunity to evaluate and refine the archaeological chronology with absolute dates. According to Parsons and his colleagues, some of the later ceramic complexes, such as Mazapan (Late Toltec period, A.D. 900/950–1150) and Aztec I (Early Aztec period, A.D. 1150–1350/1430), may actually have begun during the Epi-Teotihuacán period (1996). A further complication is to be found in the possibility that the Coyotlatelco ceramic complex, diagnostic of occupations of the immediate post-Teotihuacán period (A.D. 650/750–900/950), may, in

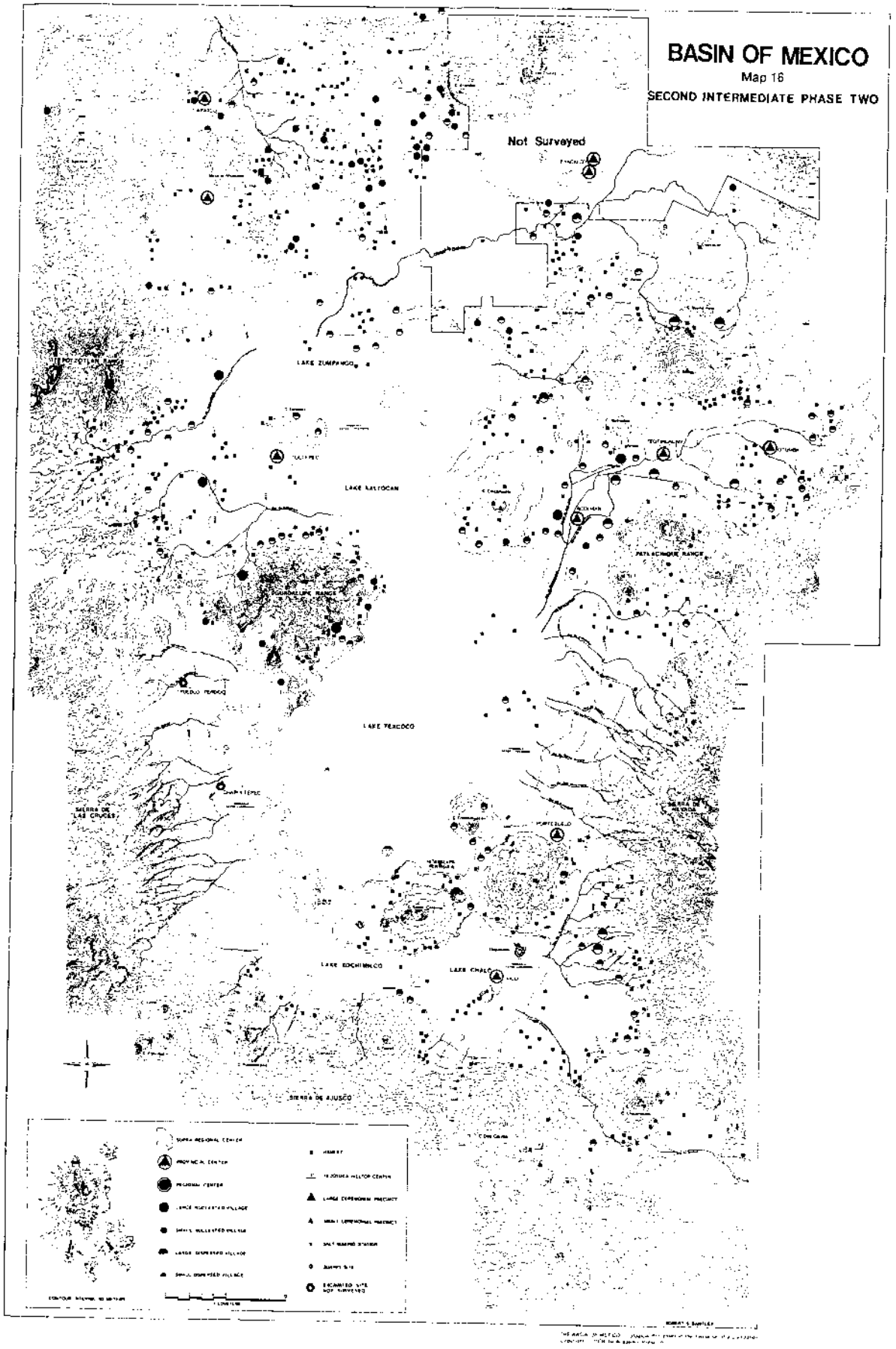

Figure 11.11. Basin of Mexico Late Toltec settlement patterns. From Sanders et al. (1979:map 16, Second Intermediate Phase Two). Reprinted with permission of Academic Press and the authors.

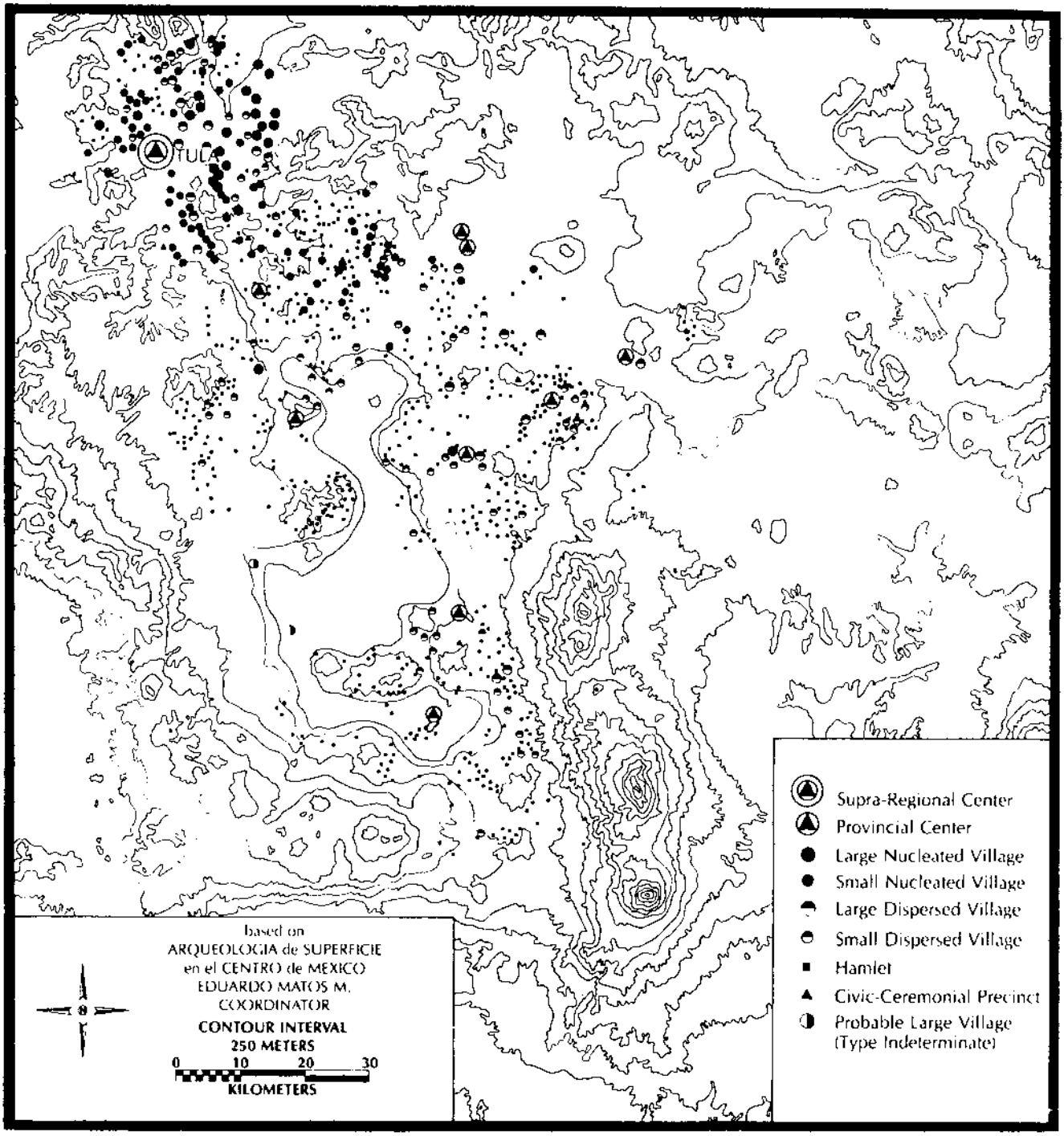

Figure 11.12. Central Mexico, Late Toltec settlement patterns. Figure 11.4, William T. Sanders and Robert Santley, "A Tale of Three Cities: Energetics and Urbanization in Pre-Hispanic Central Mexico," in Evon Z. Vogt and Richard M. Leventhal, eds., *Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey,* University of New Mexico Press and Peabody Museum of Archaeology and Ethnology, Harvard University. Copyright 1983 by the President and Fellows of Harvard College.

some subregional contexts, be contemporary with the last century of Teotihuacán's dominance (ca. A.D. 650–750) and persist from then until the emergence of Tula. Radiocarbon dates for Teotihuacán published by Rattray suggest that this apparent contemporaneity with Teotihuacán may not exist (1991), as the Late Classic occupation (Metepec phase) at Teotihuacán may have ended by A.D. 650. The cycles we propose here, especially their duration and beginning and ending dates, may need modification as additional dates clarify what is apparently a most complex period.

The Epi-Teotihuacán period involved both continuity and discontinuity with Teotihuacán (Charlton

1973, 1975, 1991; Diehl and Berlo 1989:3). The continuities—in population, settlement locations, settlement patterns, and degree of urbanization—are strongest within the Basin of Mexico. Many sites continue to be occupied from the preceding period, while others appear to have been founded by migrants from Teotihuacán (Charlton 1973, 1975, 1991; Diehl 1989:16; Parsons 1970, 1971:202, 1989: 189–195; Sanders et al. 1979:130). The collapse of the Teotihuacán city-state system is marked archaeologically by an overall population decline at Teotihuacán and throughout the Basin; (1) from about 250,000 to 175,000 (Diehl 1989:13) or (2) from about 230,000 to 115,000/117,000 (Parsons 1989: 189–191; Sanders 1981:157; Sanders et al. 1979: 129–137).

Within the Basin, population is distributed in highly urbanized settlement clusters of unequal sizes within restricted zones. The realignment of population, the configuration of the settlement clusters, their environmental location, and their spatial separation, taken together, suggest the emergence of independent city-states in areas with agricultural lands having the best access to moisture (springs, streams, lake, high water table, flood water, direct rainfall) and possibly associated with the introduction of *chinampa* (raised field) agriculture in the southern Basin (Alden 1979; Blanton 1975; Charlton 1973, 1975; Diehl 1989; Parsons 1989:189–193; Sanders 1981:184, 186; Sanders et al. 1979:129–37). The relations between these new city-states may have been peaceful, with integrative economic structures responsible for the distribution of the Coyotlatelco ceramic complex. Some have suggested that mutual hostility was basic to their interrelationships, citing the spatial separation and the location of regional centers (Alden 1979; Blanton 1975; Blanton et al. 1993:138; Parsons 1989:193; and Sanders et al. 1979:133). Only one of the regional centers (Zumpango cluster), however, is located on a defensible hilltop. No additional evidence for warfare or hostilities—for example, fortresses, outposts, fortifications, and weapons—has been reported (Charlton 1973:415).

We are uncertain of the processes involved in the devolution and fragmentation of the Teotihuacán polity, the loss of population, the source(s) of new populations (if any), and the relocation of those people and the existing populations in the Basin. In the northern part of the Basin, the Teotihuacán, Cuauhtitlán and Zumpango areas, which had substantial Classic period populations, declined in population; other areas to the south with Epi-Teotihuacán period occupations gained population after the Classic period (Charlton 1973, 1975; Diehl 1989; Parsons 1989: 189–191; Sanders 1981; Sanders et al. 1979:129).

In the northern Basin, three settlement clusters have been defined ranging in size from 5,500 to 78,000 (Fig. 11.9; Charlton 1975; Sanders et al. 1979:129–131; Parsons 1989:189, 191). These are the Teotihuacán Valley cluster, including settlements in the Texcoco area (population estimated at 78,000 [Parsons 1989:191], and 75,000–80,000 [Sanders et al. 1979: 130]), the Tenayuca-Cuauhtitlán or Guadalupe cluster (population estimate from 12,000 [Parsons 1989:191] to 20,000 [Sanders et al. 1979:131]), and the Zumpango cluster (population estimated from 5,500 [Sanders et al. 1979:131] to 6,400 [Parsons 1989:191]). These clusters are separated from each other by apparently unoccupied land, making their delineation relatively easy.

In the southern Basin, there tends to be more continuous occupation within a relatively extensive zone of Early Toltec period settlement (Charlton 1975; Parsons 1989:193), with "three or four substantial regional centers, spaced between 7 and 15 km apart" (Sanders et al. 1979:130). Sanders et al. (1979:130–132) and Parsons (1989:191) have divided this occupation into three clusters[7]—the Portesuelo cluster (population estimated at 12,000 [Sanders et al. 1979: 132]), the Cerro de la Estrella cluster (population estimated at 5,000 [Sanders et al. 1979:132]), and the Xico cluster (population estimated at 7,100–7,400 [Sanders et al. 1979:132]).

We argue that each settlement cluster, separated from other clusters by unoccupied lands or through nearest-neighbor analysis, represents an independent, separate, political unit, a city-state (Parsons 1989: 193). These clusters were of unequal size, both in terms of total population and in terms of percentage of population living in urban settlements, a situation similar to the pre-state Formative period political units and to the later Early Aztec city-states (Cycle III, Part 1). Although Teotihuacán had lost a substantial portion of its population, it remained the largest Early Toltec urban settlement and fell within the largest settlement cluster in the Basin. The Teotihuacán cluster is physically separate from the others (Fig. 11.9). The proximity of the southern clusters to each other might indicate a confederacy type of relationship such as is found among the much later Early Aztec city-states.

Outside the Basin, but in immediately adjacent

areas (Fig. 11.10), new regional centers, city-states, developed at the same time that the Basin of Mexico's settlement and political structures were changing. These new centers were frequently, but not always, located in naturally defensible positions, such as hilltops, and they were enhanced by walls, ditches, and earthworks (e.g., Xochicalco in Morelos [Hirth 1984a, 1989; Hirth and Guillén 1988], Cacaxtla in Tlaxcala [García Cook 1981:269–270], Teotenango in the Valley of Toluca [Piña Chan 1975], and various sites in the Mezquital Valley [Mastache and Cobean 1989]). Along with others such as Cholula in Puebla (Dumond and Müller 1972; Marquina 1970; McCafferty 1996) and Huapalcalco in the Tulancingo Valley (Müller 1963), they "developed local styles in ceramics, architecture, iconography, and other cultural elements, styles which suggest the presence of new ethnic groups or radical changes in the older cultural traditions" (Mastache and Cobean 1989:55; see also Jiménez Moreno 1966:59–80; Nagao 1989).

The relationships between the city-states within and without the Basin of Mexico are not clear. The Coyotlatelco ceramic complex is shared by many of the surrounding city-states but not by Xochicalco, Huapalcalco, or Cholula. The pattern of Teotihuacán-derived city-states within the Basin and the development of militaristic, warring, competitive city-states in many of the surrounding areas provided the matrix within which the new forms of state organization and expansion developed.

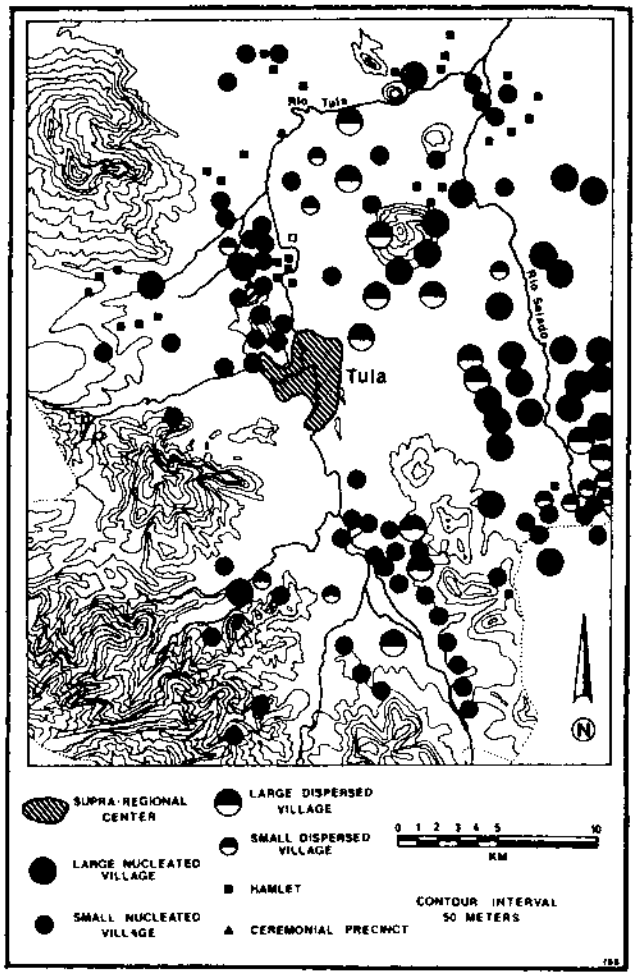

Figure 11.13. Tula Region, Late Toltec settlement patterns. From Sanders et al. (1979: 144, figure 5.10, The Tula Region, Second Intermediate Phase Two). Reprinted with permission of Academic Press and the authors.

Cycle II, Part 2: The city-state of Tula, Early Postclassic (Late Toltec) period, A.D. 900/950–1150

The political fragmentation and economic decentralization that followed Teotihuacán throughout Central Mexico was resolved briefly, first through the militaristic state of Tula (Figs. 11.11–11.13) and then, following a second period of political fragmentation after Tula's demise (Fig. 11.14), by the expansion of the Aztecs (Figs. 11.15–11.16). During the Late Postclassic period, the Epi-Teotihuacán city-states of the Mezquital Valley and the Basin of Mexico became incorporated into the Tula macroregional city-state (Fig. 11.12). This is the first example of a macroregional city-state reconstituted within the continuum of secondary-state formation processes leading from Teotihuacán to Tenochtitlán. Developments elsewhere are less clear. Xochicalco, Cacaxtla, and Huapalcalco were abandoned. Cholula and Teotenango continued, possibly representing state systems similar in size and complexity to that centered at Tula.

The Toltec city-state, centered at the city of Tula in the Mezquital Valley northwest of the Basin of Mexico, does not replicate Teotihuacán (Diehl 1981, 1983; Healan 1989; Matos M. 1974, 1976; Sanders et al. 1979:137–149; Sanders and Santley 1983). Tula's grandeur in size, planning, art, and architecture did not equal those of its predecessor, Teotihuacán, or its successor, Tenochtitlán (Diehl 1983:67, 118; Healan 1989:6; Healan et al. 1989:245–249). This situation may be due to Tula's short duration of 200–250 years (Sanders et al. 1979:146). Yet Teotihuacán was quite large and architecturally grand early in its history, so new factors of integration may have been at work in Tula (Blanton et al. 1993:139–142; Sanders et al. 1979:146).

The population resident in Tula has been variably

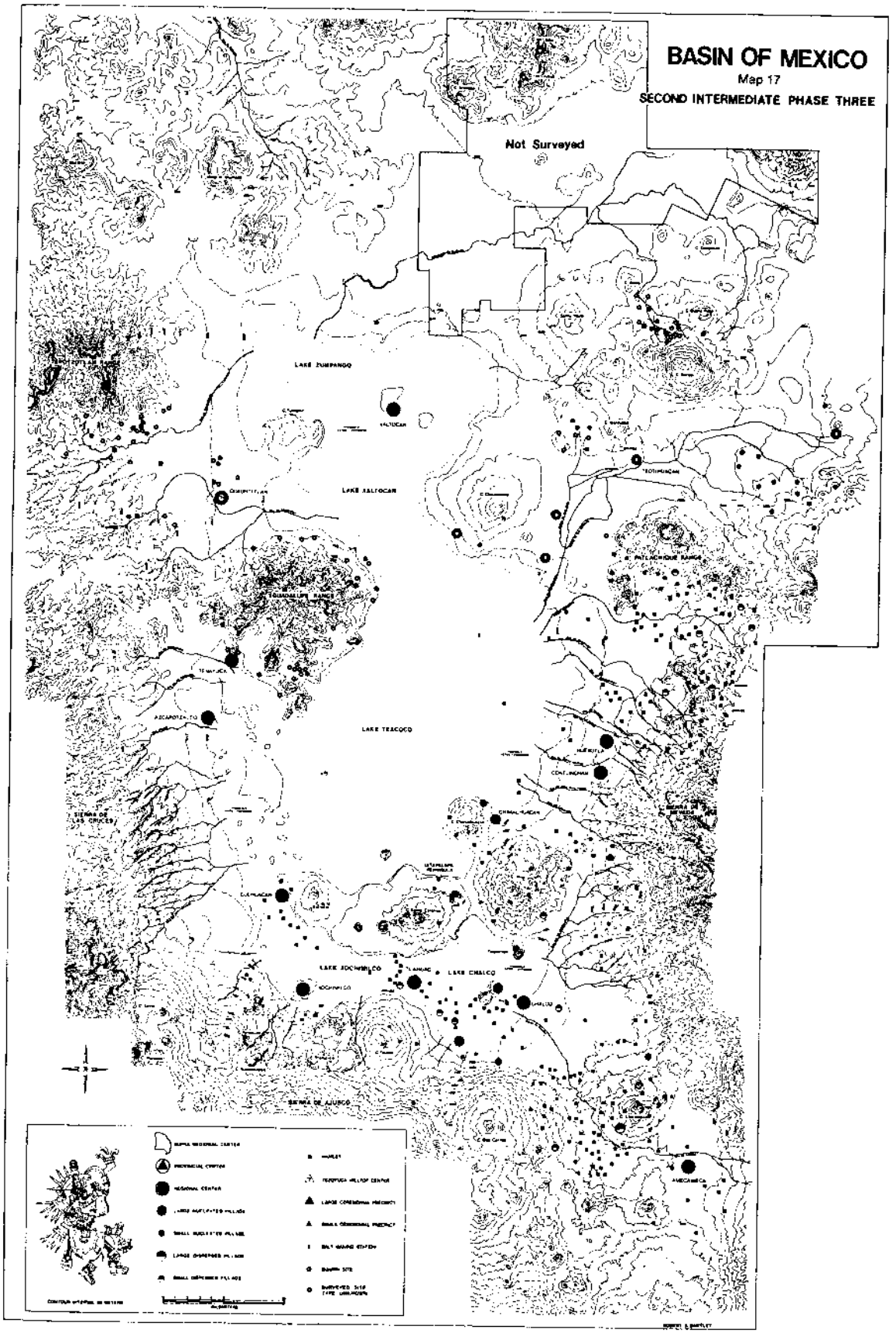

Figure 11.14. Basin of Mexico Early Aztec settlement patterns. From Sanders et al. (1979:map 17, Second Intermediate Phase Three). Reprinted with permission of Academic Press and the authors.

estimated as falling between 32,000 and 60,000 (Diehl 1981:284, 1983:58; Sanders et al. 1979: 141; Sanders 1981:186; Healan and Stoutamire 1989:235). Although the city of Tula was smaller by half than Teotihuacán, there was a substantial concentration of population within a 20-kilometer radius of Tula (Table 11.4). Sanders and his colleagues suggest that there were as many as 60,000 inhabitants in the area immediately around Tula (Figs. 11.12 and 11.13; 1979:142–143), raising the total urban and immediately adjacent population in the Mezquital Valley to about 120,000. If this were taken as Tula's urban population, then Tula had approximately the same size population as Teotihuacán (Sanders et al. 1979:144–145; Sanders 1981:186). Tula's "urban" population, according to this definition, was more widely dispersed than Teotihuacán's, although it was probably still associated with a nucleation of political and economic functions and an urban-rural settlement dichotomy (Blanton et al. 1993:142; Parsons 1989:195–200; Sanders et al. 1979:137–149).

There are four settlement and demographic trends that reflect the incorporation of the Basin into the city-state of Tula. First, the range of settlement types within the Basin, and presumably the range of state functions performed outside Tula, was reduced. Hamlets and small dispersed villages were emphasized, particularly in the south, and large nucleated communities were more common in the north (Charlton 1973:417, 420; Sanders et al. 1979:138). This resulted in the most extreme ruralization of the Basin's prehispanic population (Parsons 1989:195; Sanders et al. 1979:138).

Second, population density increases from south to north in the Basin and is highest in the northwest. Population density continues to increase to the north within the Mezquital Valley in the area around Tula (Figs. 11.11–11.13; Parsons 1989:195; Sanders et al. 1979:140). "The growth of the center of Tula apparently acted as an enormous magnet, pulling the rural population of the Basin in the northwesterly direction" (Sanders et al. 1979:141; see also Charlton 1973:420–421).

Third, within the Basin, areas previously abandoned were now populous, reflecting a redistribution of population within the Toltec state system (Sanders et al. 1979:140).

Fourth, the Basin's population, from the Epi-Teotihuacán period to the Early Postclassic period, might have undergone a slight decrease (from 115,000 to 92,000 persons [Parsons 1989:197]) or have remained level (115,000 to 120,000 persons [Sanders 1981; Sanders et al. 1979]). If the Tula-area population is added to that of the Basin, then the combined total would be equivalent to the Classic period population of the same two areas, about 250,000 within the core and immediate hinterlands (Sanders 1981:186; Sanders et al. 1979:186). This would give the Teotihuacán city-state and the Tula city-state equivalent populations of about 250,000 each within their core and immediate hinterlands. If Tula's population were symmetrically arranged around the city, then surveys in areas not examined to date could alter this apparent equivalency (Sanders and Santley 1983: 269–270).

In addition to these settlement and demographic trends, Parsons has noted some patterns of interest in regional ceramic distributions (1989:197). In the northwestern, Zumpango region, the ceramic complex is closely related to that at Tula. In the central section of the Basin, from Teotihuacán to Ixtapalapa, the complex is similar to that (defined as Mazapan) from the Teotihuacán Valley. In the south, the Chalco-Xochimilco areas, the ceramics are a simplified version of the central Basin complex. The variations in regional settlement patterns (Figs. 11.11 and 11.12) and the variations in ceramic complexes might result from differences in local organization within the Toltec state or might even be correlated with a proposed political and economic frontier within the Basin between Cholula, to the south in the modern state of Puebla, and Tula to the north (Parsons 1989:198; Sanders et al. 1979:146–149)

The extent of the area under Tula's control has not yet been defined. On the basis of Figures 11.8 and 11.12 (Sanders and Santley 1983:263, 270), we suggest that Tula's control of central Mexico extended over an area at least equivalent to that probably controlled by Teotihuacán, about 25,000 square kilometers, albeit with a different areal emphasis. This area is much less than that indicated by Diehl (1983:118–120), which extends north from Xochicalco to a point north and east of Tula to an area south of El Tajín, and from there to the southwest around Cholula to a point east of Xochicalco.

Diehl has recently reexamined the evidence for a Toltec horizon throughout Mesoamerica. He argues for the existence of such a horizon, attributes its origins to the Toltecs of Tula, Hidalgo, and its spread to Toltec merchants (1993:263, 286–287). Calnek notes that the physical evidence for imperial control over distant areas is not obvious (1978:1007). Weaver sug-

gests that Tula had limited integrated territory but an extended sphere of influence (1993:405). From an archaeological point of view, however, the Aztec empire would seem to be equally invisible (Umberger and Klein 1993).

Tula as a City-State

Tula's preeminence as a macroregional city-state in the Mezquital Valley and the immediately adjacent Basin of Mexico (Fig. 11.12) lasted only 200–250 years, a time span approximately equal in length to the preceding period, which was dominated by smaller, multiple city-states that formed in the wake of Teotihuacán's decline (Fig. 11.9). In one sense, the Tula city-state continued earlier (Cycle I) tendencies for proto-urban and urban settlements in the Basin of Mexico to increase disproportionately in size by incorporating people from other settlements. This trend culminated in Teotihuacán, continued on a reduced scale in the small Epi-Teotihuacán period city-states, and reemerged in a modified, less incorporative form with the development of Tula. The increase in population density and site complexity near Tula demonstrates the integrative force of the city-state and its control over the Mezquital Valley and the Basin of Mexico.

At the same time, however, the settlement system of the Tula city-state reflected changes in organization that differentiated it from Teotihuacán. The construction program at Tula was short-lived and not on as massive a scale as that at Teotihuacán. Urban planning is evident but not to the same extent as at Teotihuacán. Finally, agricultural producers were located outside Tula, not within the city, as at Teotihuacán (Sanders 1981:186). Healan and his colleagues describe the arrangement of residential compounds at Tula as being "looser"—less uniform—than at Teotihuacán (1989:251). This impressionistic description applies equally to the city-state settlement system. In the Basin, settlements were much more rural in character than they were during the Classic period and the population much more dispersed. More variation in residential structures and their arrangement and in the configuration of settlements might reflect the lack of direct state controls in many areas of life. At the same time, the city-state created a "Pax Tula" in which it was safe to live outside tightly nucleated settlements, at least within the area effectively controlled by the Tula city-state.

We propose that Tula—a large, regionally dominant city-state with inner and outer hinterlands and populations equivalent in size to those of Teotihuacán—integrated areas of central Mexico economically, politically, and socially following a Teotihuacán model but with a less centralized primate system characteristic of the early Postclassic world (Blanton et al. 1993:142). As was the case under Teotihuacán's rule, there were no large provincial centers in the Basin, although the proportion of the population who lived in small centers was greater (Table 11.3). All the evidence points to a city-state system with the effective wielders of power centered in the city of Tula. Yet, as at Teotihuacán, there were no unambiguous examples of representations of the elite who were at the top of the Tula city-state. The success of the city-state of Tula in eliminating or profiting from the elimination of rivals (with the exceptions of Cholula and Teotenango?) and extending control over a large area would, as in the case of Teotihuacán, seem to preclude it from being considered a city-state if one accepts Trigger's definition that a city-state must be part of a network of adjacent competitive city-states (1993:8–14; cf. Renfrew 1986a).

Further research in the Valley of Toluca and in the Cholula region may yet demonstrate the presence of large, contemporary city-states at Teotenango and Cholula. Even without such data, however, it is reasonable to say that Tula did retain some aspects of a city-state as defined by Trigger—although Tula was a very large one, without an apparent immediate network of independent polities with which to interact. The characteristics include a substantial population of food producers and nonfood producers in an urbanized zone (Tula and the immediately surrounding area), an emphasis on urban craft production for both rural and urban sectors of society, an intensification of agricultural production near the city, an economic system integrating rural and urban sectors, and widely shared ideological symbols (Trigger 1993).

However, as noted for Teotihuacán, some other characteristics are suggestive of a territorial state (again following Trigger's definition)—territorial extent, early monumentality of construction (less developed at Tula than at Teotihuacán), and a "hierarchy of administrative centers," even though distorted by a large number of nonfood producers at Tula and food producers in the immediate hinterlands around Tula at the top of the hierarchy.

In our opinion, Tula, like Teotihuacán, is an example of a city-state whose evolution may have occurred in a context where nearby equivalent rivals

were eliminated, their populations integrated, and where the regional population density was relatively low until the Late Postclassic period (Sanders 1981). The mechanisms (ideological, political, economic, social structural) that supported Tula's center-focused integration and organization of the population of a large section of central Mexico are imperfectly known, both in Tula and in the surrounding regions. So far as we can tell, however, such mechanisms developed out of the Teotihuacán-writ-small city-states of the Epi-Teotihuacán period and were ultimately based on Teotihuacán, although they underwent modifications related to the reduction of political power in the Postclassic period (Blanton et al. 1993: 212–213). There are some similarities to the Teotihuacán city-state, such as a generally primate settlement system (Blanton et al. 1993:141–142; Sanders et al. 1979:137–149), but the extreme centralization characteristic of Teotihuacán had broken down and never appeared again.

Cycle III: Middle and Late Postclassic Periods, A.D. 1150/1200–1521

Recent radiocarbon dates for the Basin of Mexico suggest that the Early Aztec ceramic complexes (Aztec I and II) that define the conventional archaeological chronology for the middle Postclassic period (Cycle III, Part 1, A.D. 1150/1200–1350/1430) might, in fact, have been partly contemporaneous with Tula (Parsons et al. 1996). For present purposes, however, we will follow Mastache and Cobean (1989:39) and use the date of A.D. 1150/1200 to mark the beginning of Cycle III.

The last half of the twelfth century saw the end of Tula as a major integrative, regionally based city-state and the beginning of the final cycle of preconquest cultural evolution in Central Mexico. Tula's demise set the stage for the events that led ultimately to the rise of Tenochtitlán. We argue that the processes of state formation in central Mexico after Tula were again modified, this time to include the memory and experiences of Tula in addition to those of Teotihuacán.

Emphasized in Cycle III (as noted in ethnohistoric and archaeological data) were population movements, ethnicity, dynastic struggles, intercity warfare, the militaristic tributary city-state, the organization of alliances and confederacies, imperial expansion, and intensification of economic specialization and exchange (Bray 1977; Brumfiel 1983; Brundage 1972; Calnek 1982; Carrasco 1971a, 1971b; Davies 1973, 1987; Gibson 1964; Nicholson 1971, 1975, 1978; Smith 1983, 1984). The general structure and pattern of Cycle II events foreshadow those of Cycle III. One factor that clearly differentiates the two cycles, however, is the major population growth that occurred in Cycle III, Part 2 (A.D. 1430–1521), where population levels far exceeded any previously known in central Mexico (Sanders 1981:190). We believe that population growth, as well as absolute population size, are directly related to innovations in macroregional city-state organization.

Cycle III (A.D. 1150/1200–1521) consisted of two parts. Part 1, A.D. 1150/1200–1430, was characterized by the familiar multiple, small, independent polities (city-states), the development of limited warfare between them (A.D. 1250–1350), and the beginning of large, but structurally fragile, tributary empires headed by the city-states of the Acolhua and the Tepaneca (A.D. 1350–1430). In Part 2 of this cycle, A.D. 1430–1521, a single major polity or city-state, Tenochtitlán—initially with the help of less powerful allies, Tlacopán and Texcoco—integrated economically, politically, ideologically, and socially, *but not demographically,* numerous other city-states of varying sizes and distances from the center. The tributary city-state empire of the Aztecs, as described by the Spaniards, may be a late city-state development designed to accommodate large numbers of subject people without resettling them into a highly centralized administrative system such as probably existed in the city-states of Teotihuacán and, to a lesser extent, Tula.

The small city-states of Cycle III, Part 2, although integrated into a major city-state tributary empire headed by Tenochtitlán, retained most of their state functions in their local setting (Charlton 1973:421; Sanders 1981:190; Sanders et al. 1979:153–155; Smith and Berdan 1996:1–3). The physical incorporation of substantial percentages of the population into the city-state center, as at Teotihuacán, or into the center and the area immediately surrounding it, as at Tula, may have occurred in the environs of Tenochtitlán-Tlatelolco, where between 33 and 50 percent of the Basin's population resided. The rest of the population of the Late Aztec period Basin was organized and administered through semiautonomous city-states, each of which had substantial freedom of action in religious, economic, political, and social matters. Thus, for about ninety years, Tenochtitlán, picking up the mantle of Tula, integrated much of central Mex-

ico with principles of population organization and administration that often did not co-opt local administration. The development of these new principles may be related to the substantial population increase in the Basin, which was between four and five times larger than that of either the Teotihuacán or Tula city-state (Figs. 11.15 and 11.16). Tenochtitlán extended its conquests and tributary empire out of central Mexico and reached distant areas of Mesoamerica, but with very limited administrative integration (Gibson 1971; Hassig 1988, 1992). This massive, indirectly ruled city-state tributary empire system was destroyed by the Spanish conquest in A.D. 1521.

Cycle III, Part 1: Middle Postclassic (Early Aztec) period, A.D. 1150/1200–1430

The processes involved in the devolution and fragmentation of the Tula polity and the correlated population movements are not clear. We do know that the Early Aztec period involved substantial population increase and relocation in the Basin of Mexico (Fig. 11.14; Parsons 1989:200–202; Sanders et al. 1979: 149–153) and an apparent abandonment of the Mezquital Valley. The population in the Basin of Mexico increased from about 92,000/120,000 to about 250,000 (Parsons 1989:202). Within the Basin, discontinuities in population size, settlement location, and settlement patterns, including the degree of urbanization, are quite marked (compare Figs. 11.11 and 11.14). Population growth occurred throughout the Basin but was greatest in the south and central regions. The ruralization of the Late Toltec period was reversed with the establishment of numerous nucleated centers (Parsons 1989:202).

By A.D. 1250, militaristically competitive city-states were present in the Basin (Hodge, this volume). The time depth of their militaristic nature is unclear, both in the documents and in the archaeological record. There is no evidence that settlements were situated in fortified locations similar to those of Xochicalco, Cacaxtla, and Teotenango, which developed following Teotihuacán's demise. Although descriptions of conflict figure prominently in the documents, defense does not seem to have been a factor in the location of settlements unless spacing reflects defensive considerations (cf. Alden 1979). Warfare was probably on a small scale, with very limited conflicts and conquests. The labor investment in fortifications was either not effective or, more probably, not cost-effective, when the costs incurred by losing such a conflict, as well as the probable short duration of such a loss, were calculated.

During the second century after Tula's collapse (A.D. 1250–1350) the new regional populations built up small-scale conquest "empires," ephemeral and short-lived (Caso 1966), in the Basin of Mexico (Davies 1980; Sanders et al. 1979:149–153) and in surrounding regions. They were inherently unstable, dependent on alliances and leaders, both subject to change in unpredictable ways. Brumfiel presents a detailed synthesis of such instability in the Basin of Mexico during this period (1983:268–270).

Between A.D. 1250 and 1350, warfare apparently escalated to the point where two ethnic groups, the Acolhua—centered at Texcoco, Huexotla, and Coatlinchán, on the eastern side of the central Basin of Mexico—and the Tepaneca—centered at Tenayuca and Azcapotzalco, on the western side—began to embark on more extensive but no less fragile conquests. This escalation is the hallmark of the last part of the Early Aztec period, from A.D. 1350 to 1430. Its effects on the sociopolitical structure of the late fifteenth century were critical (Brumfiel 1983:270–273; Carrasco 1984; Davies 1980:240–247; Hassig 1988: 125–140; Offner 1979). The expansion of Azcapotzalco and Texcoco, for example, affected areas outside the Basin. Although there were excursions, alliances, confederacies, and conquests, Davies is probably correct in arguing that none of the regions was able to "burst its bounds" in its quest to conquer the others (1980:176). The major result was the establishment of the conditions that gave rise to the Triple Alliance of Texcoco, Tlacopán, and Tenochtitlán, dominated by Tenochtitlán.

Sanders and his colleagues argue that the Early Aztec settlement patterns, based on the distribution of Aztec I and II ceramics (Fig. 11.14), reflect the political situation around A.D. 1400, when both the Acolhua and the Tepaneca had risen to power, but before the formation and expansion of the Triple Alliance (1979:151, map 17). The presence of two large sites on the west of Lake Texcoco (Tenayuca and Azcapotzalco) and two on the east (Coatlinchan and Huexotla), each pair with a population of 10,000–15,000, they feel, reflects the existence of these two polities. The smaller centers in the southern Basin, each with a population of about 5,000, probably "functioned as small regional centers, each of which dominated small tributary regions within the southern Basin" (Sanders et al. 1979:151; Parsons 1989:203). In this interpretation, the distribution of Aztec I and II ce-

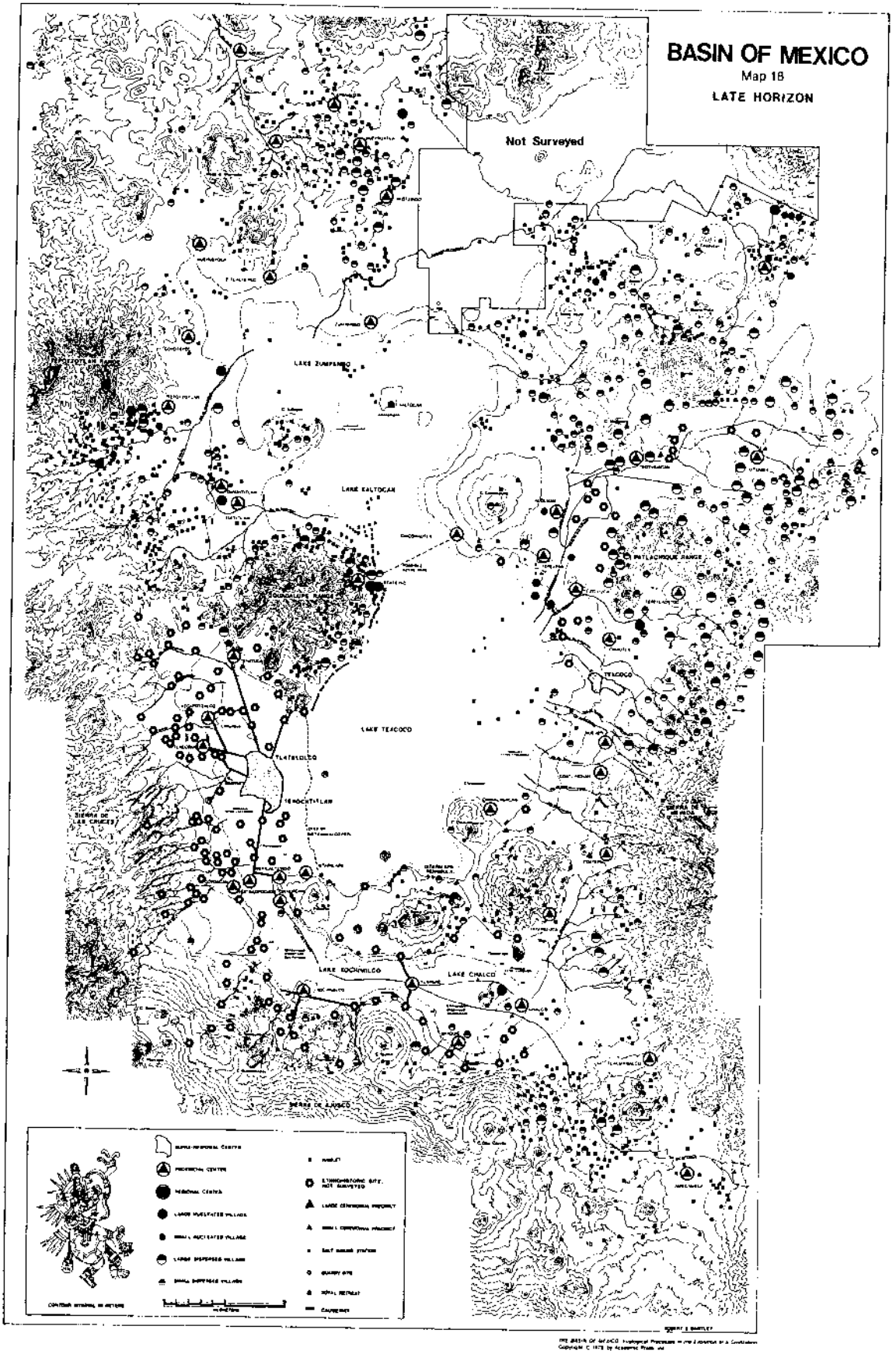

Figure 11.15. Basin of Mexico Late Aztec settlement pattern. From Sanders et al. (1979:map 18, Late Horizon). Reprinted with permission of Academic Press and the authors.

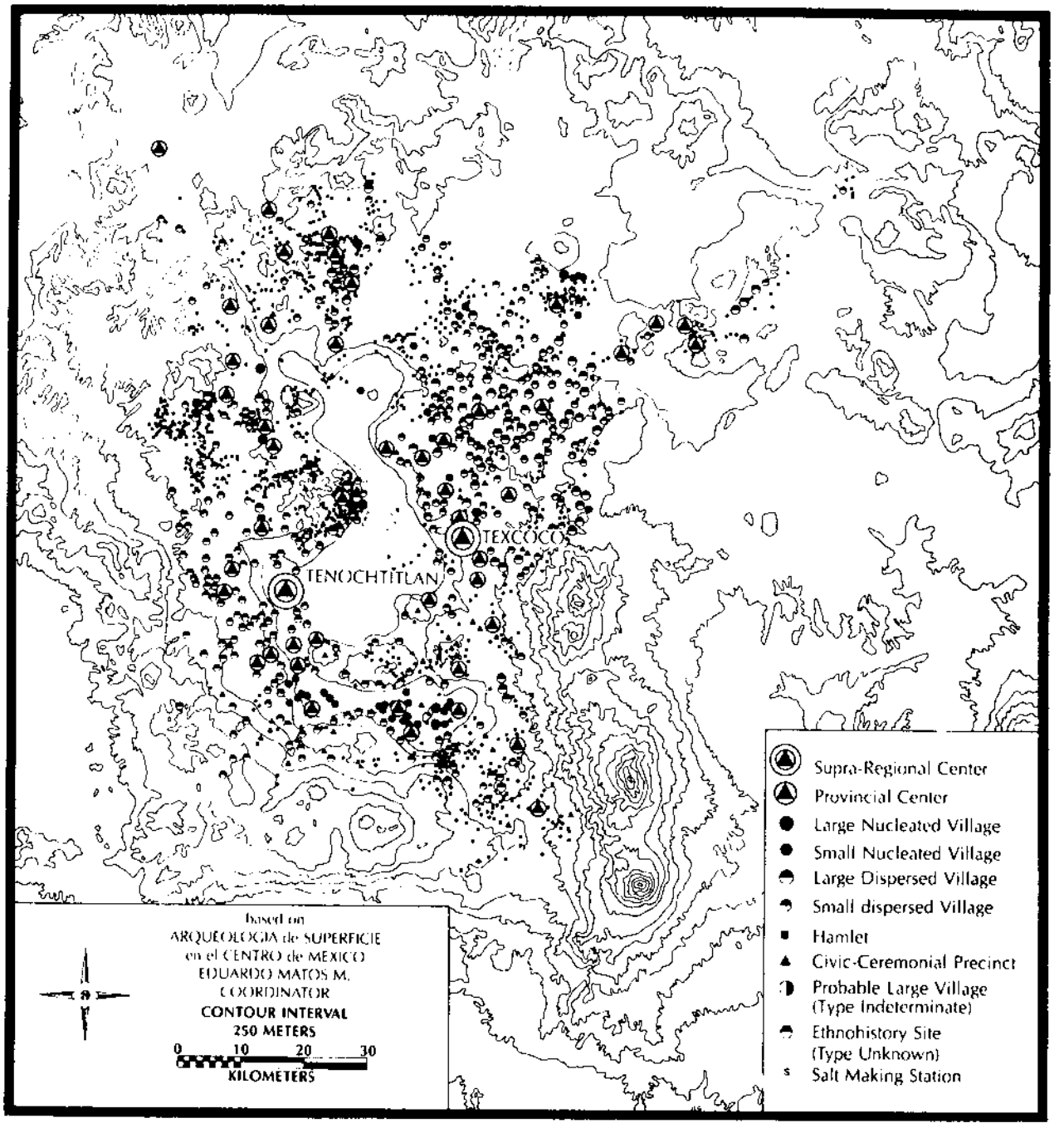

Figure 11.16. Central Mexico Late Aztec settlement system. Figure 11.5 in William T. Sanders and Robert Santley, "A Tale of Three Cities: Energetics and Urbanization in Pre-Hispanic Central Mexico," in Evon Z. Vogt and Richard M. Leventhal, eds., *Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey,* University of New Mexico Press and Peabody Museum of Archaeology and Ethnology, Harvard University. Copyright 1983 by the President and Fellows of Harvard College.

ramics reflects the sociopolitical situation, not of A.D. 1350, prior to the rise of the Acolhua and the Tepaneca, but of about A.D. 1400, just prior to the momentous events of the first quarter of the fifteenth century. Alden's spatial analysis of some of the same settlement-pattern data from the eastern and southern Basin of Mexico also suggests that the distribution of Early Aztec ceramics reflects the sociopolitical situation in the Basin in A.D. 1400 (1979:174–177).

Despite the obvious political fragmentation of this period, there exists good evidence for some persisting regional economic integration (Blanton 1996:62–67). This evidence includes the widespread Pachuca obsidian at Huexotla (Brumfiel 1976a, Table XXIX), near Chalco (Brumfiel 1986; Parsons et al. 1982: 155–157), and in Tenochtitlán (Reyes C. and García-

Bárcena 1979). Otumba obsidian was also widely distributed (Charlton and Spence 1983:69). In addition, the large number of cotton spindle whorls in Morelos (Norr 1987) and in the Basin at Huexotla and Xico (Brumfiel 1987:108) and Chalco (O'Neill 1962:214) may have been tied to an increase in cotton production and spinning to provide garments for newly emerging elites in the post-Tula Basin (Smith and Hirth 1988).

Smith (1983) and Hassig (1985:73) have suggested that the economic institution involved in the movement of goods at this time was the solar market, focused on each of the small city-states (see also Hodge, this volume; Blanton 1996:67). Local production and distribution within each city-state may have been the rule at this time (Nichols and Charlton 1988). Brumfiel found evidence at Huexotla for part-time nonagricultural specialization in spinning, salt production, ceramic figurines, spindle whorls, and censer decorations, all of which were distributed to regional consumers (1980:467).

Similar market systems probably occurred at this time throughout central Mexico. Goods such as obsidian, salt, and cotton entered each of these systems horizontally, and local craft and agricultural products circulated within them. Regional ratios of agricultural to nonagricultural production within each city-state varied, depending on local resources and the agricultural productivity of the land. Thus areas to the north in the Basin of Mexico, with obsidian resources and reduced agricultural potential, would have had a heavier emphasis on nonagricultural production than areas in the central and southern Basin (Nichols and Charlton 1988).

In the southern Basin of Mexico, agricultural intensification was under way with the construction of *chinampas* (Parsons 1989:202; Parsons et al. 1982; Parsons et al. 1985). These developments are important, for they, along with later constructions, provided a major source of food for a rapidly growing population in the Basin of Mexico and underwrote, in part, the later expansion of the Triple Alliance (cf. Parsons 1976:247–248). They may be related to the increase in population in the southern Basin at this time.

Within the Basin of Mexico, Texcoco and its allies were defeated by Azcapotzalco in A.D. 1418. During the following decade, there was a falling out between the Aztecs (Mexica) of Tenochtitlán and the Tepaneca of Azcapotzalco. When Tezozomoc, the long-lived ruler of the Tepaneca, died in A.D. 1427, war broke out. The Aztecs, allied with a Tepaneca tributary, Tlacopán, the defeated Acolhua, and the Acolhua allies, Tlaxcala and Huejotzingo, conquered the Tepaneca one year later (Brumfiel 1983:271–274; Davies 1980: 302–316; Hassig 1988:136–147).

Until the fall of Azcapotzalco, the hegemony of any city-state, large or small, rested on an "unstable complex of payoffs and alliances" (Brumfiel 1983:271). Brumfiel argues convincingly that the growth and decline of Azcapotzalco destroyed the local noble houses, causing succession crises, precluding the formation of alliances, and reducing or eliminating resistance to the Triple Alliance of Tenochtitlán, Tlacopán, and Texcoco (1983:271–273). Ability became a factor in succession, changing a strict filial system to a fraternal system (Hassig 1988:141; Rounds 1982: 83–84). Finally, the ruler and nobles acquired direct control over conquered lands and tribute rights (Brumfiel 1983:275–276; Hassig 1988:145–147). These changes, plus the ideology of war for sacrificial victims (Conrad and Demarest 1984:44), have been cited as significant for the period of expansion between A.D. 1430 and 1519.

Cycle III, Part 2: The city-state of Tenochtitlán, Late Postclassic (Late Aztec) period, A.D. 1430–1521

Historically and archaeologically this interval represents the best-known period within central Mexico, a period of conquest-based expansion and integration (Bray 1977:378). The quantity and quality of the archaeological data available for this period are impressive (as summarized by Hodge and Smith 1994; Sanders et al. 1979:153–181, maps 18–19; and Sanders and Santley 1983:271–279).

The settlement surveys of the Basin clearly demonstrate a massive population increase by the last century before the conquest (Figs. 11.15 and 11.16; Parsons 1989:205–213; Sanders 1981:189–194; Sanders and Santley 1983:271–276; Sanders et al. 1979:153–181). The population of about 250,000 during the first part of Cycle III rises to 800,000–1,200,000 in the second part of the cycle. The basic sociopolitical unit continued to be the city-state, but it was present in much greater numbers and in some instances was much larger than previously (Parsons 1989:210; Sanders et al. 1979:154). Sanders and his colleagues suggest that these city-states fell into several categories based on the size of their urbanized population from small, 3,000–4,000, to very large, 150,000–

200,000 in the case of Tenochtitlán and Tlatelolco (Sanders et al. 1979:154–155; Sanders 1981:189–190; Hodge, this volume, 1984).

Within the Basin, Tenochtitlán and its allies employed the tributary city-state model to integrate all city-states into what was essentially a single polity, but one without the massive population relocation and settlement restructuring characteristic of Tula and Teotihuacán. The occupation of the Basin was very intensive. Many new settlements, including city-state capitals, possibly as administrative centers, along with villages and hamlets, were founded in previously unoccupied areas (Sanders et al. 1979:156). Although some Early Aztec political centers continued as important centers in their respective areas, the Triple Alliance capitals—Texcoco, Tlacopán, and Tenochtitlán-Tlatelolco—were all founded in areas with little or no previous occupation, possibly denoting a break with earlier administrative models (Sanders et al. 1979:155).

The most intensive occupation of the Basin was a concentration of "between 300,000 and 400,000 people . . . in a block of 400 square kilometers along the western shores and within Lakes Texcoco and Xochimilco" (Sanders and Santley 1983:274; see also Sanders 1981:190; Sanders et al. 1979:163). Such a concentration, well beyond levels previously reached at Teotihuacán and Tula, was possible because of the canoe, which was used to supply the city (Sanders and Santley 1983:274–279; Sanders et al. 1979:176).

Unlike the settlement systems associated with Teotihuacán or Tula, which were primate in nature with clearcut evidence of the dominance of the largest urban settlement over other settlements in political, economic, social, and religious matters, the settlement system of the Late Postclassic Basin of Mexico involved neither the physical integration of the population in a settlement system focused on the dominant city-state of Tenochtitlán nor the extreme centralization of decision making characteristic of those earlier macroregional city-states (Blanton 1976:193, 1996: 67–83; Blanton et al. 1993:156–157; Charlton 1973:421; Parsons 1989:207; Sanders 1981:189; Sanders et al. 1979:176).

Tenochtitlán as a City-State

Tenochtitlán's dominance as a macroregional city-state in central Mexico and distant regions within Mesoamerica lasted approximately ninety years, cut short by the Spanish conquest. The first part of Cycle III encompassed 230–280 years, a period similar in length to that of Cycle II, Part 1. Both followed the breakup of large city-state regional systems and were characterized by small, multiple city-states. Like Tula, the Tenochtitlán city-state system marked a further break from the Cycle I and II tendencies of proto-urban and urban settlements in the Basin of Mexico to grow disproportionately by incorporating people from other settlements. This trend culminated at Teotihuacán, continued on a reduced scale in the small Epi-Teotihuacán city-states, reemerged in a modified, less incorporative form at Tula, and then continued into the Early Aztec period city-states.

However, the unprecedented size of the Late Aztec population in the Basin (Sanders 1981:190) effectively precluded use of a strong city-state settlement system with a simple urban center/rural hinterland pattern (cf. Healan et al. 1989:249) and attendant centralization of population and functions, as existed in central Mexico during the hegemony of Teotihuacán and Tula. Urbanism persisted as a major characteristic of the Basin's Late Aztec settlement system in both small and large city-states (Parsons 1989: 207). Tenochtitlán-Tlatelolco and its immediately surrounding area formed a dense urban settlement of about 400,000 within a 600-square-kilometer area (Sanders 1981:190, 194; Sanders et al. 1979:163), representing 33–50 percent of the Basin's total population. Sanders and his colleagues consider all these settlements urban parts of Greater Tenochtitlán, "a kind of single great community, economically and politically integrated at several levels, and forming a discrete component, not duplicated elsewhere, of the Late Horizon settlement system" (1979:163).

Healan and his colleagues argue that this was not an enlarged Aztec version of an urban center analogous to Tula or Teotihuacán but was similar to a "northeastern U.S. megalopolis" (1989:249). Although the increase in population density and settlement size at Tenochtitlán and the surrounding area is reminiscent of Tula and Teotihuacán, as single large urban centers dominating a city-state settlement system with a rural hinterland, when the rest of the settlement system is observed, it becomes clear that Tenochtitlán's urban dominance had not resulted in a centralization of population or of political, economic, religious, and social functions. All these remained in the subordinate, integrated, but decentralized small city-state centers throughout the Basin, as well as in

the supraregional centers of Tenochtitlán-Tlatelolco and Texcoco. The distribution of mounded architecture and elite residences supports this view of decentralization (Blanton et al. 1993:157).

At the same time, however, the settlement system of the Tenochtitlán city-state reflects changes in population organization differentiating it from Teotihuacán and Tula. The construction program at Tenochtitlán was not on as massive a scale as that at Teotihuacán and more closely approximates that of Tula. Urban planning at Tenochtitlán-Tlatelolco is evident and approximates the rigidity of Teotihuacán (Umberger 1996:89–90). Most agricultural producers resided outside Tenochtitlán, not within the city as at Teotihuacán (Sanders 1981:186; Sanders and Santley 1983:274). The residential compounds at Tenochtitlán-Tlatelolco "were looser arrangements of individual houses and a central courtyard and housed far fewer individuals" (Healan et al. 1989:251) than the Teotihuacán apartment compound. Unlike the Toltec and Teotihuacán settlement systems with their emphasis on primacy, in the hinterland areas outside Tenochtitlán-Tlatelolco, there was a full range of settlements, from single houses to city-state capitals, including a second, smaller, supraregional center, Texcoco, with an emphasis on urbanism.

The Tenochtitlán settlement system differed from that of Teotihuacán and Tula in the degree of control over urban and hinterland populations. The large size of the Basin's population precluded direct control, as had been the case previously (Blanton 1976; Blanton et al. 1993:156–157; Sanders 1981:193–194; Sanders et al. 1979:153–181). Kowalewski and his colleagues discuss a similar situation in the Valley of Oaxaca (1989:307). The "market dynamic" emphasis (Blanton 1976:194, 1996:67–80; Blanton et al. 1993:156–157; Kowalewski et al. 1989:307), along with an associated commercialism and secularization, differentiate the integration of the Tenochtitlán city-state from that of Tula or Teotihuacán. Such an emphasis, we feel, came about because of the great population increase in the Basin, and it was associated with an economical form of political control practiced by the Aztecs (Gledhill 1989:116–117; Hassig 1985:101–102, 1988:19, 1992:146–147; Santley and Alexander 1992:28–29).

Tenochtitlán-Tlatelolco, a large city-state, dominant over several regions, with a heavily occupied urban center and rural hinterlands within the Basin of Mexico, integrated that area and adjacent regions of central Mexico economically, politically, and socially through an outwardly loose, militaristic, tributary city-state model, adapted to a demographic situation with populations four and five times those previously recorded for this area. Documentary and archaeological evidence indicate a city-state system with the effective wielders of political, social, economic, and religious power—with differing spheres of concern—located not only in the center, Tenochtitlán, but also throughout the city-states incorporated within the Tenochtitlán city-state system.

The success of the Tenochtitlán-Tlatelolco city-state in reducing, but not incorporating, rivals would seem to place it within Trigger's definition of a city-state (1993:8–14), which necessitates a city-state being part of a network of adjacent competitive city-states. Other characteristics present include a substantial population of food producers and non-food producers in an urbanized zone (Tenochtitlán-Tlatelolco and the immediately surrounding area), an emphasis on urban craft production for both rural and urban sectors of society, an intensification of agricultural production near the city, an economic system integrating rural and urban sectors, and widely shared ideological symbols (Trigger 1993). However, as noted for Teotihuacán and Tula, some other characteristics are suggestive of a territorial state (again following Trigger's definition): territorial extent, early monumentality of construction (less developed at Tula and Tenochtitlán than at Teotihuacán), and a clear "hierarchy of administrative centers."

In our opinion, Tenochtitlán, unlike Tula and Teotihuacán, represents an example of a city-state whose evolution occurred in a context where nearby equivalent rivals were conquered but not physically incorporated and where a relatively high regional population density persisted throughout the Late Postclassic period (Sanders 1981). The mechanisms (ideological, political, economic, social structural) that supported Tenochtitlán's control over a large population in the Basin of Mexico are relatively well known, particularly for the center. As far as we can tell, these mechanisms underwent modifications related to a trend to limit the extent of state-level power and an increase in commercial activities. The primate settlement system no longer exists (Blanton 1976, 1996). The extreme centralization characteristic of Teotihuacán and found to a lesser degree at Tula is absent from the Late Aztec period.

Cycle IV: Spanish Conquest to Nation-State, Part I: Early Colonial Period, A.D. 1521–1620

The entirety of Cycle IV is too complicated to treat in full here. Of importance is the Early Colonial period, when city-state-like units reappear or persist in modified form. Following the Spanish conquest, the city-states incorporated into the Tenochtitlán regional system as administrative and economic units reemerged (Charlton 1986:124–127; Gibson 1964; Lockhart 1991:93). Lockhart compares these units, the *altepetl* or ethnic state, to "early Mediterranean city-states" (1992:14). "They were like city-states in size, and also in their degree of independence and strong ethnic awareness" (Lockhart 1991:23). Yet they also differed; the dominance of nucleated populations in urbanized settlements (*cabeceras*) over dependencies (*sujetos*) was not "central to their manner of organization" (Lockhart 1991:23).

The growth of mercantilism and manufacturing centered in cities, beginning in the medieval period, led to greater distinctions between urban and rural dwellers in southern Europe (Chittolini 1991). The Spanish brought with them to Mexico the conception of a dominant city and subordinate countryside that significantly altered the organizational structure of indigenous city-states in central Mexico. Like early Mediterranean city-states (Finley 1977a), the Aztecs apparently had viewed city/town and hinterland as an integrated unit; the Nahuas' vocabulary, for example, did not have a word to distinguish the city from the *altepetl* (Lockhart 1992:19).

Since the Spaniards replaced Tenochtitlán's political and economic control with their own centralized system located in Mexico City, the city-state units of the sixteenth century lacked the independence characteristic of prehispanic city-states at a comparable stage in city-state cycles. The settlement pattern in the Basin was one of many low-level centers dominated by Mexico City (Charlton 1986:125). The associated population decline during the sixteenth century from an estimated population of 800,000–1,200,000 in A.D. 1521 to a total indigenous population in the Basin of 150,000–160,000 by about A.D. 1620 (Charlton 1986:125; Sanders 1970:430) meant that most of the city-state-like units lacked an adequate demographic base to support the maintenance or development of independent state institutions and complexity. Gibson (1952, 1964) and Lockhart (1991, 1992) provide insights into the nature of indigenous communities after the conquest.

Cycle IV differs in another way from the prehispanic cycles, in that the strong central city-state power, Tenochtitlán, instead of disappearing from the scene or being significantly reduced in its influence, was replaced by a new nonindigenous urbanized power center located in the same place. The Spaniards replaced indigenous political, economic, social, and religious institutions, both in Tenochtitlán and in numerous small city-states, more rapidly and to a much greater degree in central Mexico than in other parts of Mesoamerica. Thus, when the smaller city-states reasserted themselves, they did so within the context of a structure created by the conquerors. The independence and competitiveness did not develop to the extent seen in the first part of Cycles II and III.

Comparisons and Conclusions

Any cursory examination of the sequence of settlement patterns in the Basin of Mexico and adjacent sections of the central Plateau reveals three prehispanic cycles of state development, each marked by an initial period of numerous competitive small states and followed by a period dominated by a single, large integrative city-state that subsequently dissolved into numerous small city-states, thereby beginning a new cycle. Using the settlement-pattern data, augmented whenever possible with excavated and ethnohistoric information, we have proposed that the basic social, political, economic, and ideological unit of all three cycles was the city-state.

The three cycles of prehispanic city-states are broadly similar in form and content; each represents a swing from decentralization involving numerous small, independent city-states to centralization with a single large dominant city-state. All cycles maintain high levels of urbanized populations in periods of small as well as large city-states. Yet, while there are similarities, there are also differences that clearly demonstrate the evolution of central Mexican civilization.

The first difference is that of tempo. Later cycles formed and dissolved more rapidly than the first. The earliest cycle was the longest. Certainly the development of city-states without earlier models took time. But the period of consolidation under Teotihuacán was unusually long, and Teotihuacán's position as the dominant center in the Basin was unusually stable.

The two later prehispanic cycles were much shorter in duration, although only the second cycle was completed, since the Spanish conquest truncated the third cycle. In both instances, the rapidity of development of major integrative city-states from numerous more or less independent units suggests that there had formed a substantial background of knowledge, proficiency, and expertise in state-building. In the case of the second cycle (the Epi-Teotihuacán and Early Postclassic periods), knowledge of statecraft did not translate into a lengthy hegemony for the centralizing city-state, Tula. Given the rapid demise of the Tenochtitlán city-state system, it appears that the organizational structures of the third cycle were no more permanent.

A second major difference in the three cycles is the reduction in intensity of political, social, economic, and ideological integration of settlements and people into the dominant city-state during the second part of each cycle. There is a general trend through time from the tightly integrated Teotihuacán city-state system to a slightly more loosely integrated Tula city-state system and finally to a system in which Tenochtitlán integrated very few functions and assimilated very few people but relied primarily on the administrative role of the small city-states and confederations of city-states under its control to carry out necessary political, economic, social, and ideological activities. Such decentralization was characteristic of neither Teotihuacán nor Tula (at least, not to the same degree) and probably reflects the development of production and distribution mechanisms, as well as administrative techniques, to cope with the major increase in population during the Late Aztec period.

The Late Aztec period developments in population and city-state organization represent a distinct break from earlier patterns, in terms of a more decentralized city-state system and one that was part of a larger system or network, a classic marker of city-state systems. The apparent lack of competitors to Teotihuacán, and possibly to Tula, may be the result of a lacuna in regional settlement data from other regions in central Mexico, including a nearby possible competitor, Cholula.

Notes

1. For example, Bray 1972a, 1972b; Brumfiel 1983; Calnek 1982; Charlton, in press; Diehl and Berlo 1989; Hirth 1984a, 1989; Hodge 1984, 1992, 1994, 1996, and this volume; Marcus 1989, 1992a; and Smith 1992a.
2. See Berdan et al. 1996; Berlo 1989; Brumfiel 1983; Davies 1977, 1980, 1987; Dibble 1971; Diehl and Berlo 1989; Hassig 1985, 1988; Hodge 1984:5–8; Marcus 1992c:45–57; Smith 1983, 1984; and van Zantwijk 1985.
3. For survey data see Blanton 1972; Charlton 1972, 1978; Diehl 1983; García Cook 1981; Hirth 1974, 1980; Hirth and Angulo Villaseñor 1981; Millon 1973; Millon et al. 1973; Nichols 1996; Parsons 1971, 1989; Parsons et al. 1982; Sanders 1965; and Sanders et al. 1979.
4. Intensive surveys provide complementary data on the large urban centers of Teotihuacán (Millon 1981) and Tula (Diehl 1983; Healan 1989; Matos M. 1974, 1976), on a few Formative period villages and towns (e.g., Domínguez Chávez 1979; Santley 1977; Tolstoy 1975; Tolstoy and Fish 1975; Tolstoy et al. 1977), and on several Late Postclassic regional centers (e.g., Huexotla and its rural hinterland [Brumfiel 1976a, 1980], Xico [Brumfiel 1982, 1986], Xaltocán [Brumfiel, in press], Otumba and its rural hinterland [Charlton et al. 1991; Evans 1988; Nichols 1994; Otis Charlton et al. 1993]; and Chalco [Hodge, in press]).

   There are additional relevant studies of sociopolitical evolution in the Basin of Mexico (e.g., Blanton et al. 1993; Boehm de Lameiras 1986), in subregions such as Cuauhtitlán in the northwest (Nichols 1980), and on specific aspects of the settlement patterns there and in adjacent regions of central Mexico (Brumfiel 1976b; Earle 1976; Grove 1981; Hirth 1974, 1980, 1987; Santley 1977; Sarmiento 1994; Steponaitis 1981) having to do with the nature and timing of increased Formative period political complexity in the Basin. Blanton et al. (1996); Drennan (1991) and Feinman (1991) include discussions of the Formative period occupation within comparative studies of the evolution of pre-state level complex cultures. García Cook (1981), Hirth (1980), Hirth and Angulo Villaseñor (1981), and Sanders and Santley (1983) consider the impact of Teotihuacán on regional settlement patterns. Alden (1979), Blanton (1975), Charlton (1973, 1975), Mastache and Cobean (1989), and Parsons (1970) examine the Epi-Teotihuacán settlement patterns. Bell et al. (1988), Bray (1983), Evans (1980), Evans and Gould (1982), Gorenflo and Gale (1986, 1990), Ruggles (1992), Santley (1986, 1991), Saucedo (1994), and Smith (1979, 1980) evaluate various models for an understanding of Aztec settlement patterns.
5. In accordance with the dictum of Sanders and his colleagues, we have tried to sidestep the "Tezoyuca problem," the chronology and function of the Tezoyuca sites (Sanders et al. 1979:104). These sites are located primarily in defensible locations in the Patlachique Range (Fig. 11.5) and date from the Early Terminal Formative

period. It is uncertain, however, if Tezoyuca ceramics are earlier than the Patlachique phase materials that characterize this period or if they represent an elite occupation. In our opinion, these sites minimally represent a defensive development early in the Terminal Formative period, when the regional center of Teotihuacán was emerging in opposition to Cuicuilco.

6. There is another line of evidence that suggests that chiefdoms were present during the Late Formative period and the early portion of the Terminal Formative period. The highest frequencies of resist or negative painted ceramics from excavated sites in the Teotihuacán Valley are found at the Tezoyuca site (Cuanalán 2.8 percent, Tezoyuca 7.67 percent, and Patlachique 4.79 percent [Sanders 1975:136]). The same is true for polychrome designs, with the highest frequency being at the Tezoyuca site.

   Another interesting pattern at Tezoyuca is to be found in the vessel forms. The Tezoyuca site has a much higher proportion of hemispherical bowls than occurs at other sites. According to Sanders and his colleagues (1975:138), "Virtually all the hemispherical bowls from Tezoyuca are small vessels that look like individual serving vessels. Most of the concave and straight-sided bowl rims found at Tezoyuca are apparently drinking goblets. Together these two make up approximately half the total sherds in the Tezoyuca sample. Virtually all of the vessels are highly decorated. The high percentage of individual, highly decorated serving vessels at Tezoyuca may relate to a pattern of public ceremonial feasting and food distributions, suggesting the possibility of a relationship to Service's definition of the chiefdom level of social structure."

   It is possible, however, that the Tezoyuca ceramics are more an expression of hierarchy than of chiefdoms. The Tezoyuca sites are some kind of elite ceremonial/administrative/military centers linked to the inception of Teotihuacán and its early relationships with the Cuicuilco-dominated area of the Basin south of the Patlachique Range (cf. Parsons 1971:186–191; Sanders 1965:94–98, 168–169).

7. Compare Alden 1979:188, who defines four to five clusters with populations ranging from 7,000 to 12,000 persons.