Planning and Spatial Organization of Aztec City-State Capitals

Michael E. Smith, mesmith9@asu.edu


Abstract:

I apply a new model of preindustrial urban planning to Aztec urban centers. This model focuses on two planning principles: (1) spatial coordination among buildings, and (2) standardization of urban buildings and layouts. Aztec kings and builders employed these principles as part of a program to materialize royal ideology. Most city-state capitals were designed as imitations of Tula, but the builders of Tenochtitlan deliberately employed different principles to arrive at a city layout unique in Mesoamerica.

Every known Aztec city was the capital of an altepetl, or city-state. The public buildings and spaces in the centers of these settlements were designed and built by kings and their architects in order to communicate a variety of political messages concerning power, stability, and legitimacy. The political functions of Aztec cities help explain many of their spatial and social characteristics. In this paper I use the concept of urban planning to explore some of the ramifications of the linkages between politics and urbanism in Aztec central Mexico.

URBAN PLANNING IN ANCIENT CITIES: INTRODUCTION

Research on ancient urban planning has been hampered by reliance upon some simplistic and ethnocentric notions. For many decades, most authors employed a dichotomy between planned and unplanned cities and used the criterion of an orthogonal grid layout to identify “planned” cities. Yet the variety of urban forms in the premodern world cannot be classified in this way without seriously distorting the nature of their organization and layout (Lilley 2002:157; A.T. Smith 2003:____; Smith 2006b). A useful approach to ancient urban planning is suggested by historical geographer Keith Lilley in his book on medieval cities:

Generally speaking, “planning” operates at different levels; it will include deciding where a new urban landscape should be put, and considerations about what form it should take and how it should be laid out on the ground … Urban planning, therefore, was about more than just laying out new towns with regular plans — it was about designing, planning, and building new townscapes.” (Lilley 2002:157).

Urban planning can be a difficult topic for archaeologists, since we seldom have access to the actual ideas, procedures and contexts of ancient planning and construction activities. In another work (Smith 2006b) I describe a new model for the analysis of urban planning in ancient cities. I approach the subject through the material manifestations of ancient planning decisions, using the kinds of data—city plans and architectural reconstructions—that archaeologists typically have access to. These data are evaluated with respect to two phenomena: the coordinated placement of buildings (the greater the extent to

1 This paper is adapted from several chapters of a book manuscript, *Aztec City-State Capitals* (Smith n.d.-a).
which individual buildings are arranged in relation to one another, the greater the extent of planning), and standardization among cities (the existence of standardized urban forms or phenomena suggests deliberately planned cities to achieve this standardization). This model allows the existence of variation in both the nature and degree of city planning, unlike previous studies that divide cities artificially into “planned” and “unplanned” (or “organic”) examples.

AZTEC URBAN PLANNING

The Planning Process

Following Keith Lilley’s (2002:157-163; 2005) approach, the planning of historical or ancient cities can be divided into a series of tasks, including (1) selection of the general location of a city; (2) selection of the specific site for construction; (3) design and surveying; and (4) construction. Unfortunately there is little direct evidence for any of these stages at Aztec cities, but some reasonable possibilities can be suggested.

(1) Selection of the general location. Unlike many of the medieval cities analyzed by Lilley, decisions about the general location of Aztec city-state capitals were quite circumscribed. City-states were small polities, and the capital had to be within the general land occupied by the polity’s members. The location of a city-state itself had been established early on when migrants first arrived and settled in an area (Smith 2006c; n.d.-a:chap. 3). This was not a case of a ruler looking far and wide to find a site for a new capital, a common practice in the ancient Old World.

(2) Selection of the specific site. City-state capitals were probably established toward the center of the polity’s land. Although we have no direct evidence, it seems reasonable to suggest that whatever early settlement grew fastest and attracted the most nobles may have been selected by the tlatoani as his capital.

(3) Design and surveying. We know next to nothing about the specific personnel or processes involved in designing, surveying, and laying out Aztec cities. Architects are mentioned in a few sources, but apart from the case of Nezahualcoyotl we do not know if architects were nobles, priests, or commoners. The celebrated “poet-king” Nezahualcoyotl of Texcoco, whose many talents included that of architect, is reputed to have designed and built many of the temples in Texcoco as well as palaces, irrigation systems, and aqueducts. The ruler of Tenochtitlan called on Nezahualcoyotl’s help to design and built a dike in Lake Texcoco to control flooding in the island capital and a long aqueduct to bring fresh water from springs on the shore. Unfortunately the historical sources provide little concrete information on other architects or on the processes and techniques of design and surveying. All we can do is examine the plans of cities and try to infer some of the principles that may have generated the observed patterns.

(4) Construction. Of all the steps involved in the planning process, we have the most information on construction techniques (this section is based upon Rojas 1986:142-146). Masons, stonecutters, and carpenters are mentioned frequently in written sources as occupational specialists, not just in Tenochtitlan but in many Aztec towns. These specialists worked on public construction projects as part of their taxes to the state. One component of Aztec taxation was a system of rotational labor in which every household contributed a set number of hours of labor per year to the king or another noble (Hicks 1984). This was one way that skilled construction workers were recruited for urban building projects. In the words of the chronicler Alonso de Zorita:

The building of the temples and the houses of the lords and public works was always a common undertaking, and many people worked together with much merriment … Each worked a little and did what he could, and no one hurried or mistreated him for it … Thus they went about their work, cheerfully and harmoniously. (Zorita 1963:203)
Although one may doubt whether people always paid their labor tax so cheerfully, Zorita does provide one of the few descriptions of Aztec rotational labor. Construction specialists and unskilled laborers also offered their services for pay in the marketplace, where construction materials were also sold. López Luján et al. (2004) provide an extensive discussion of construction materials for the Templo Mayor of Tenochtitlan, and much of their information probably applies to other Aztec cities as well.

Plazas and Coordination Among Buildings

Aztec urban design began with the plaza, which served as the spatial anchor for the entire epicenter. The formal plaza has been called the fundamental unit of Mesoamerican city layout, the feature that generated and structured urban space (Arancón García 1992). In the words of Ringle and Bey,

“rather than being the by-product of building placement, the plaza instead may be seen as a socially and ritually charged field about which buildings were built. In other words, such spaces are owed primacy in understanding site layouts.” (Ringle and Bey 2001:279)

The first material dimension of my urban planning model is the extent to which the locations and forms of individual buildings are coordinated with one another. In Aztec cities the plaza was the central feature for the coordination of buildings. Cities exhibited a high degree of coordination among buildings in their epicenters but not in their residential zones; in other words, they had planned epicenters but unplanned residential zones. I discuss the nature and layout of residential areas elsewhere (Smith n.d.-a:chap. 6); here I focus on planning within urban epicenters.

Of the various types of deliberate coordination that can exist among buildings (Smith 2006b), the epicenters of Aztec cities typically exhibit common alignments, formal layouts, monumentality, and some degree of orthogonality. In short, Aztec cities had extensively planned townscape. These various elements of planning converged on the central plaza. The plaza was most important at Aztec cities in Morelos, whose layout I have called the “Tula plaza plan” (figures 1, 2). Tula’s epicenter was perhaps the most formally organized city center in ancient Mesoamerica. The plaza was rectangular and symmetrical, and it gave an orthogonal structure to all of the buildings in its immediate vicinity. The Morelos Aztec cities reproduced this pattern, although at a smaller scale than the Toltec capital.

As at Tula, these Aztec plazas created a strongly formal arrangement in which most public buildings shared a common orthogonal layout. Although the buildings were smaller than those at the large Mesoamerican cities such as Teotihuacan, Monte Alban, or Tikal, they created a strong visual impression on people within the plaza. The visitor in the plaza was surrounded by carefully arranged stone buildings. The largest in area was the palace of the ruler, and the tallest in height was the central pyramid, which towered over the plaza.

The basic features of the Tula plaza plan are also reproduced on page 36 of the Codex Borbonicus (Anders, et al. 1991). This image (fig. 3), the only surviving pre-Spanish map of an Aztec urban epicenter, depicts a plaza with five structures and a series of deities. A large single-temple pyramid dominates the plaza at the top (the east side of the plaza), and opposite this is a smaller temple with a tzitzimime shrine (Klein 2000) in front. Another temple is located on the right side of the plaza, and an unadorned shrine sits in the center.² Fourteen deities or ixiptla (deity impersonators) and a sacred bundle are arranged around the sides of the plaza. This purpose of this image was to illustrate rites in the veintena ceremony of Tititl, whose major event was the sacrifice of the goddess Illama tecuhtli. According to Sahagún’s (1950-82:bk. 2, 3

² Nowotny (2005:58) calls the setting of this scene a “temple court in which the various phases of the sacrifice are presented simultaneously.” See Smith (n.d.-a:chap. 5) for a discussion of different opinions on the proper orientation of this image.
Aztec city-state capitals outside of Morelos do not conform as closely to the layout of Tula (fig. 4). These city plans are more difficult to evaluate because there are fewer examples and most have only partial preservation of the urban epicenter. Ixtapaluca or Acozac (fig. 4) is probably the best preserved city-state epicenter in the Basin of Mexico, and it is difficult to discern an overall design to the public architecture (Brüggemann 1987; Contreras Sánchez 1976; Nicholson 2005). Some buildings were destroyed by construction activities in the 1960s, however, and it is possible that some key structures are missing today. The location of the epicenter on a long, narrow ridge probably influenced the layout of buildings. A north-south row of structures, including a series of shrines, a palace and a circular temple, may have formed the west side of a large plaza, with the large pyramid with an enclosed patio at the south end. This pyramid faces east, with a small enclosed patio on its east side, an unusual orientation for a central Aztec temple. It is possible that the main plaza was originally west of the pyramid, with the ballcourt on the north side and the palace in the northeast corner; unfortunately the current condition of the site does not allow this possibility to be evaluated.

Aztec Huexotla (García García 1987), another relatively well preserved city in the Basin of Mexico, has several public buildings concentrated in what is now the modern village of the same name (fig. 4). Many other structures have probably been destroyed or have not been located, but the central pyramid does face west, and it probably defined the east side of a central plaza, whose west side may have been marked by a monumental stone wall. Other public buildings at the site are located at some distance from this hypothetical plaza. The plan of Zultepec (fig. 4) is even more difficult to interpret, since it is not at all clear whether the excavated and mapped structures comprise the entire epicenter, part of the epicenter, or even a separate compound outside of the city’s epicenter (Martínez Vargas and Jarquin Pacheco 1998).

Another example of an epicenter that may not conform to the Tula plaza plan is the depiction of Cholula in the Historia Tolteca-Chichimeca (fig. 5). This map contains a major temple facing west (assuming that this plan is oriented with east at the top), along with two temples dedicated to Quetzalcoatl, a calmecac, and various other features. In this map, the temples and shrines are contained within a great plaza or open space that is surrounded by the residences of nobles. This is a very different pattern from Aztec archaeological zones, in which the plaza is an open area framed by buildings, not a semi-enclosed space full of buildings. The only Aztec epicenter that resembles the Cholula map is Tenochtitlan, with its sacred precinct full of temples and other public buildings. If this map is an accurate portrayal of the Cholula epicenter in Postclassic times, then Cholula was an interesting variant on the basic Aztec epicenter plan. On the other hand, it seems equally likely that the map may not be accurate in the spatial arrangement of buildings, in which case its layout could have been based on the plan of Tenochtitlan, or perhaps on Spanish urban planning conventions, which had a large open plaza flanked by a church, other public buildings, and residences of the wealthy (Crouch, et al. 1982).

Walled Precincts?

As noted above, Huexotla has the remains of several massive north-south stone wall segments to the west of most of the public architecture (fig. 4). Although most authors assume that this was part of a precinct wall that once surrounded the urban epicenter (as at Tenochtitlan), I am more struck by the absence of such wall segments in other places at the site. One would think that if these massive walls had formed a rectangular precinct, then traces would have been reported in other parts of the town. It would be a relatively simple matter to search for remains of this wall with some targeted test excavations, but no one has done this yet.

The wall segments at Huexotla bring up the question of walled precincts at Aztec cities. Based upon the presence of the walled sacred precinct in Tenochtitlan and several ambiguous references in the works of the chroniclers, many authors have asserted that all or most Aztec cities had such precincts, but this was not the case. Much of the discussion can be traced to Motolinía (1979:50-51), whose words suggest that he is generalizing to all cities when he mentions a wall surrounding the central ceremonial
district. Sahagún’s (1993:269r) illustration of the walled precinct of Tenochtitlan has caused much confusion; for discussion see Smith (2006a; n.d.-a). There is very little concrete evidence for walled precincts outside of Tenochtitlan and Tlatelolco, and this feature should not be considered a basic element of Aztec urban planning.

Standardization Among Cities

The standardization of buildings and layouts among a series of cities is the second component of my urban planning model (Smith 2006b). The basic idea is that architectural similarities suggest the existence of a model of the proper urban center to which the builders of a series of cities attempted to conform. One of the best ancient examples is the tradition of Chinese imperial capitals (Steinhardt 1990). The Tula plaza plan found at Morelos cities is the clearest case of spatial standardization. In cities that do not conform to the Tula plaza plan, the central role of formal plazas and the eastern location of the (west-facing) central temple-pyramid are examples of spatial standardization. The most striking types of standardization among Aztec city-state capitals are examples of spatial standardization. The most striking types of standardization among Aztec city-state capitals, however, concern individual public buildings.

As discussed in Smith (n.d.-a: chap. 4), many of the basic building types show high levels of standardization in form. In some cases structures in different cities are virtually identical: double-temple pyramids in the major capitals are quite similar; circular temples always have their stairs on the east side; all known ballcourts have the same shape. In other cases there was more variation, but all examples conformed to a basic layout; palaces are the best example, and small altars and single-temple pyramids also show great similarity and are easily distinguished from structures of these types built by other Mesoamerican cultures.

Another type of standardization among Aztec city-state capitals is in their architectural inventory. Table 1 lists the various major building types found in my architectural sample. Nearly all cities with a minimal level of architectural preservation had a large pyramid of either the single-temple of double-temple variety (17 sites). Nearly as common as temple-pyramids were shrines or low altars (16 sites), and next come palaces as a common building type (12 sites). Given the variations in preservation and excavation of Aztec cities, it does not seem unreasonable to infer that these three categories were the fundamental kinds of buildings constructed in Aztec cities, and that they were part of a native model of what constituted a proper Aztec city; Ashmore (2005) and Marcus (1983) discuss the notion that there was a concept of a proper Mesoamerican city. This reconstruction matches the model of the proper Aztec city as inferred from native historical sources (Smith 2006c; n.d.-a: chap. 3), with one exception. From the native viewpoint, the royal palace and the temple of the patron god(s) were the dominant urban features, but shrines and platforms are barely mentioned in discussions of urban architecture.

Small altars or shrines were fundamental components of Aztec urban design and layout (fig. 6), and the prevalence of these structures is one of the features that distinguishes Aztec cities from other Mesoamerican urban centers. The fact that native historical prose accounts fail to mention shrines as basic urban features can be explained in two ways. First, these were much smaller and less impressive than pyramids and palaces and perhaps less memorable to natives recounting their history to Spanish chroniclers several decades after the Spanish conquest. But a more likely explanation is that many of these shrines or altars were associated with women’s ritual (Klein 2000), an area that was not only poorly understood by the Spanish friars, but also feared and repressed (Burkhart 1997). It is entirely possible that native informants neglected to mention such features and their rituals to the chroniclers, or that the chroniclers chose to leave these out of their texts. In contrast to the written sources, the Aztec ritual codices are full of depictions of shrines.

The public buildings depicted in the ritual codices provide another perspective on the architectural inventories of Aztec cities. The best example is the Codex Borgia (Anders, et al. 1993), whose numerous ritual scenes include many temples, shrines, and other buildings. The most elaborate section of this codex—with the largest number of buildings—is a long passage that Anders et al. label “The nine rites for light, life and maize” and “Diverse ceremonies in a complex of temples, under the supervision of [the priest of the deity] Cihuacoatl” (Anders, et al. 1993:175). In table 2 I have listed the various buildings and
features that occur in this passage, following the interpretations of Anders et al. At least four different temples are depicted, and most appear to be single-temple pyramids. As expected from the archaeological zones, temples are outnumbered by shrines and altars. Other features include a ballcourt, various specialized ritual features, and a river and crossroads. Overall there is good agreement between the inventory of structures in this passage of the Codex Borgia and the structures excavated at Aztec urban epicenters.

These similarities among Aztec cities in buildings and inventories result from what Blanton (1994) calls canonical architectural communication. The builders of these cities were signaling the adherence to a basic concept of urban design, and thereby making a statement about social identity and affiliation with a royal urban tradition. There must have been a basic cognitive model of what an Aztec city should look like: what buildings it must contain, what they should be like, and how they should be arranged. Although no explicit description of this hypothesized cognitive model has survived, the native historical information on cities concords with the archaeological data and strongly suggests that such a model did indeed exist among the royalty and nobility of Aztec central Mexico.

AZTEC TOWNSCAPES

The term townscape was first introduced by British town planners (Cullen 1971) to describe the visual qualities of urban buildings and open spaces. It was later adopted by historical geographers and others (e.g., Lilley 2002). In the words of Cullen (1971:cover), townscape is “the art of giving visual coherence and organization to the jumble of buildings, streets and spaces that make up the urban environment.” Although visual coherence in modern and historical towns is typically conceived in terms of the aesthetic qualities of the townscape, for ancient cities townscape had a stronger political dimension. They were (in the epicenter at least) designed and maintained by rulers and their builders in order to advance their political agendas of glory, power, legitimation, and control.

The concept “townscape interaction,” which I discuss at greater length elsewhere (Smith n.d.-a), refers to the processes of interaction between people and the built environment within cities. This is the realm of Amos Rapoport’s (1990) model of low-level meaning, which refers to the influence of the built environment on the thought and behavior of individuals (Blanton 1994; Lawrence and Low 1990; A.T. Smith 2003). In the words of Winston Churchill, “We shape our buildings; thereafter, they shape us.” People design and build buildings, but once several buildings are built in a city, the townscape exerts a strong influence on the actions of people.

One of the most important aspects of townscape interaction at Aztec cities is the open nature of the central plaza. The Morelos town of Coatetelco (fig. 7) illustrates this feature. People could walk right into the plaza from several directions without hindrance. This is very different from the townscape of the imperial capital Tenochtitlan, where the central zone was surrounded by a wall that limited access (for discussion of social implications of different plaza arrangements, see Moore 1996). This contrast between the townscape of Aztec city-state capitals and that of Tenochtitlan is best addressed through a historical perspective.

THE HISTORICAL TRECTOR OF URBAN PLANNING IN CENTRAL MEXICO

Three fundamental principles of urban planning characterized most of the ancient cities of Mesoamerica: (1) the concentration of public architecture in a central zone, the epicenter; (2) the use of a variety of planning techniques within the urban epicenter but not in the rest of the city (i.e., residential zones show little planning); and (3) reliance upon the public plaza as a basic feature to structure urban
These three principles are first evident in the layout of public architecture in towns of the Middle Formative period (Clark 2001, 2004; Grove 1999; Love 1999), and they were clearly present in most urban centers of the Classic period throughout Mesoamerica (Andrews 1975; Blanton 1989; Stark 1999), except for Teotihuacan.

One of the many ways in which the city of Teotihuacan was radical and unique within the Mesoamerican urban tradition was in its deviation from these ancient planning principles. Teotihuacan had no compact epicenter (unless the whole area along the Street of the Dead is considered a huge epicenter); the whole city was highly planned, not just a central area; and there were few open plazas. There is no large central plaza other than the Plaza of the Moon, and in fact the Street of the Dead played the functional role of a plaza in providing a spatial framework for the coordination of the major buildings.

After the fall of Teotihuacan, central Mexican cities returned to the ancient Mesoamerican principles of urban planning. Xochicalco, Teotena ngo, and Tula all exhibit the basic Mesoamerican planning principles (fig. 8). Among these three city plans, Tula stands out with a far higher level of formalism and monumentality. The plaza at Tula Grande is much larger, the major structures are larger (although there are fewer), and there is greater use of symmetry and simplicity in the arrangement of buildings. Although some authors have argued for continuity in form and layout between Tula and Teotihuacan (e.g., Mastache and Cobean 2003), the radical differences in the layouts of the two cities suggest a lack of continuity in form. One might speculate that the rulers and planners of Tula deliberately rejected the Teotihuacan urban plan. Not only did the planners of Tula return to ancient Mesoamerican principles, they did so with a vengeance, producing the most formally planned urban layout of any Mesoamerican city. Although there were certainly numerous cultural parallels and continuities between Teotihuacan and Tula, urban planning was not one of them.

Most Aztec city-state capitals were founded in the Middle Postclassic period, in the wake of the Aztlan migrations. This kind of simultaneous urbanization throughout a large area is termed the “synergism model” by Balkansky et al. (2004), and it suggests a dynamic system of interacting polities. We know from ethnohistoric sources that Aztec kings looked back to the mythical rulers of Tula for legitimacy, claiming descent from the Toltec kings. It is thus logical to infer that Aztec rulers in the Middle Postclassic period may have designed their urban epicenters in imitation of the great ancient city of Tula. Tula also furnished the model for the standard Aztec palace plan (Evans 2004, n.d.).

Little is known of the layout of Tenochtitlan and its epicenter during its first century (prior to the founding of the Triple Alliance Empire in 1428). It seems reasonable to hypothesize that the Templo Mayor was originally part of an epicenter with a plan similar to other Aztec cities. The temple faced west, and the plaza would have been in the area immediately to its west. At some stage in its history, however, the Mexica rulers made a radical break with the Aztec city plan by enclosing the central area in a walled precinct and filling it with buildings. By the time of the Spanish conquest, this so-called “sacred precinct” was full of temples, shrines, altars, a ballcourt, and numerous other structures used in the state religion of Tenochtitlan (Marquina 1960; Matos Moctezuma 2003; Nicholson 2003). The rulers of Tlatelolco also built a walled precinct. Tenochtitlan did have a modest plaza, located immediately south of the walled precinct (Calnek 1976, 2003). This space served as a permanent marketplace, however, and not as a formal ceremonial plaza.

The sacred precinct of Tenochtitlan took the place of the normal Aztec plaza, but it was not a plaza, despite the use of this term by a number of modern authors (e.g., Low 1995; Matos Moctezuma 2003:133). The lack of a formal central public plaza had been one of the radical innovations at Teotihuacan a millennium earlier, and plazas returned to central Mexican cities quickly after the fall of that city (fig. 8). As Aztec rulers copied the layout of Tula, the formal plaza became enshrined as a fundamental component

---

3 This section is based upon parts of Smith (2006a).

4 This assertion was vigorously challenged by several colleagues (including William Sanders and Robert Cobean) at the 2005 Mesoamerican urbanism conference at Pennsylvania State University, I invite readers to compare the maps of Teotihuacan and Tula and assess the nature of similarities and differences.
of Aztec urban planning. The construction of a walled precinct at Tenochtitlan (most likely in place of a prior plaza) was probably part of the new imperial ideology of the Mexica rulers. It certainly made the center of Tenochtitlan unique among Aztec cities.

The Mexica kings drew inspiration and legitimacy from Teotihuacan, and the ideological aspects of this legacy were materialized in a number of practices, including placement of Teotihuacan objects into Mexica offerings, imitation of Teotihuacan styles in ritual objects and architecture, and numerous other material references to the ancient Teotihuacan (Boone 2000; López Luján 1989; Olmeda Vera 2002; Umberger 1987). Explicit material references to Teotihuacan near the Templo Mayor, however, occur late in its history. Most date to construction stage VI, most likely dating to the reign of Ahuitzotl (1486-1502, see López Luján 1994:68); these include the Teotihuacan-style “red temples” (Olmeda Vera 2002:55) and Offering 5 at the Eagle Warrior house with its Teotihuacan thin orange vase (López Luján, et al. 2000). If Teotihuacan references occurred this late in the history of Tenochtitlan, then it is unlikely that the deliberate imitation of Teotihuacan’s orthogonal layout was responsible for the creation of the grid plan of Tenochtitlan. Nevertheless, the Mexica rulers may well have used this similarity—quite rare in ancient Mesoamerica—as part of their program of imperial ideology. In sum, Tenochtitlan had a fundamentally different urban layout than any other Aztec city.

AZTEC CITIES AS POLITICAL STATEMENTS

Ibn Khaldun, the 14th century Islamic philosopher and historian, proposed a political theory of urbanism that fits Aztec cities well:

Dynasties are prior to towns and cities. Towns and cities are secondary (products) of royal authority … the life of the dynasty is the life of the town. If the dynasty is of short duration, life in the town will stop at the end of the dynasty. Its civilization will recede and the town will fall into ruins. On the other hand, if the dynasty is of long duration and lasts a long time, new construction will always go up in the town, the number of large mansions will increase, and the walls of the town will extend farther and farther (Khaldûn 1958:vol. 2, p.235).

The various types of urban planning that characterized Aztec cities resulted form the actions of kings and their builders, and many of the architectural and spatial features of Aztec cities were designed to promote political messages (Smith n.d.-a). The urban townscape can be interpreted as the materialization of a royal ideology of grandeur and control. These political and urban dynamics can only be understood by paying attention to spatial layout at as large a sample of cities as possible. An exclusive focus on a single city, or a few large cities, can produce useful interpretations, but larger samples are needed to put these interpretations into their broader social context.

Acknowledgements

My thinking on ancient urban planning has been stimulated by interactions with colleagues at the University at Albany and Arizona State University. I also acknowledge the influence of the publications of Richard Blanton, Joyce Marcus, Jerry Moore, Amos Rapoport, and Adam T. Smith.
Table 1 Public architecture at Aztec cities

<table>
<thead>
<tr>
<th>City</th>
<th>Types of building*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PD</td>
</tr>
<tr>
<td><strong>Early Aztec capitals:</strong></td>
<td></td>
</tr>
<tr>
<td>Tenayuca</td>
<td>x</td>
</tr>
<tr>
<td>Teopanzolco</td>
<td>x</td>
</tr>
<tr>
<td><strong>Major Late Aztec capitals:</strong></td>
<td></td>
</tr>
<tr>
<td>Azcapotzalco</td>
<td></td>
</tr>
<tr>
<td>Tlacopan</td>
<td>d</td>
</tr>
<tr>
<td>Texcoco</td>
<td>d</td>
</tr>
<tr>
<td><strong>Cities in the Basin of Mexico:</strong></td>
<td></td>
</tr>
<tr>
<td>Huexotla</td>
<td>x</td>
</tr>
<tr>
<td>Ixtapaluca</td>
<td>x</td>
</tr>
<tr>
<td>Otumba</td>
<td></td>
</tr>
<tr>
<td>Xaltocan</td>
<td></td>
</tr>
<tr>
<td>Chiconautla</td>
<td></td>
</tr>
<tr>
<td><strong>Cities in Morelos:</strong></td>
<td></td>
</tr>
<tr>
<td>Palacio de Cortés</td>
<td>x</td>
</tr>
<tr>
<td>Coatetelco</td>
<td>x</td>
</tr>
<tr>
<td>Coatlan Viejo</td>
<td></td>
</tr>
<tr>
<td>Cuentepec</td>
<td>x</td>
</tr>
<tr>
<td>Yautepec</td>
<td></td>
</tr>
<tr>
<td><strong>Cities in Other Valleys:</strong></td>
<td></td>
</tr>
<tr>
<td>Calixtlahuaca</td>
<td>x</td>
</tr>
<tr>
<td>Cholula</td>
<td>d</td>
</tr>
<tr>
<td>Zultepec</td>
<td>x</td>
</tr>
<tr>
<td><strong>Non-urban settlements:</strong></td>
<td></td>
</tr>
<tr>
<td>Sta. Cecelia Acatitlan</td>
<td>x</td>
</tr>
<tr>
<td>Cihuatepec</td>
<td></td>
</tr>
<tr>
<td>Cuexcomate</td>
<td>x</td>
</tr>
<tr>
<td>Capilco</td>
<td></td>
</tr>
<tr>
<td>Cerro Tlaloc</td>
<td></td>
</tr>
<tr>
<td>Malinalco</td>
<td>x</td>
</tr>
<tr>
<td>Tepozteco</td>
<td>x</td>
</tr>
<tr>
<td><strong>The imperial capital:</strong></td>
<td></td>
</tr>
<tr>
<td>Tenocthitlan</td>
<td>x</td>
</tr>
<tr>
<td>Tlatelolco</td>
<td>x</td>
</tr>
<tr>
<td><strong># of cities represented:</strong></td>
<td>7</td>
</tr>
</tbody>
</table>

* Key to building types:

- PD Pyramid, double-temple
- PS Pyramid, single-temple
- C Circular temple
- B Ballcourt
- S Shrine
- P Palace

archaeological evidence

documentary evidence
Table 2  Types of buildings depicted in a major ritual cycle in the Codex Borgia

<table>
<thead>
<tr>
<th>Building</th>
<th>Deities worshipped</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temples:</strong></td>
<td>Quetzalcoatl and</td>
</tr>
<tr>
<td>Temple of the sky, with conical roof</td>
<td>Tlauizcalpantecuhtli</td>
</tr>
<tr>
<td>Temple of the sky, with roof with eaves</td>
<td>Xolotl</td>
</tr>
<tr>
<td>Temple of jade and precious flowers</td>
<td>The sun</td>
</tr>
<tr>
<td>Temple of darkness and death</td>
<td>Cihuacoatl</td>
</tr>
<tr>
<td><strong>Shrines and Altars:</strong></td>
<td></td>
</tr>
<tr>
<td>Circular altar for ritual dances</td>
<td></td>
</tr>
<tr>
<td>Jade altar for ritual dances and sacrifices</td>
<td></td>
</tr>
<tr>
<td>Circular altar decorated with a serpent wall</td>
<td></td>
</tr>
<tr>
<td>Small altar</td>
<td>Xolotl</td>
</tr>
<tr>
<td>Four eagle houses or temples around a plaza</td>
<td></td>
</tr>
<tr>
<td>Tzitzimime platform</td>
<td>Tlauizcalpantecuhtli</td>
</tr>
<tr>
<td><strong>Other Buildings:</strong></td>
<td></td>
</tr>
<tr>
<td>Ballcourt</td>
<td></td>
</tr>
<tr>
<td>Sunken patio or subterranean chamber</td>
<td>Cipactonal</td>
</tr>
<tr>
<td>Plaza with a great hearth</td>
<td></td>
</tr>
<tr>
<td>Sanctuary</td>
<td>Tepeyollotl and Chalchiuhtlicue</td>
</tr>
<tr>
<td>A river and a crossroads</td>
<td></td>
</tr>
</tbody>
</table>

Note: The images are in the Codex Borgia (1993:29-48), and the interpretations are from Anders et al. (1993:181-187). This feature, a platform decorated with skulls, is called a skull rack by the authors.

List of Figures
2. Epicenters of cities in the state of Morelos, showing the Tula plaza plan.
4. Epicenters of cities in the Basin of Mexico and Tlaxcala.
6. Shrines or low altars. A: Teopanzolco; B: Tlatelolco; C: Tenayuca; D: Ixtapaluca (Acozac). Photographs by the author.
7. The central plaza (epicenter) or Coatetelco, a city in Morelos (M.E. Smith 2003:fig. 8.2).
8. Epicenters of three post-Teotihuacan central Mexican cities.

Note: Figures 1-7 are from Smith (n.d.-a); figure 8 is from Smith (n.d.-b). See those works for full citations and discussion.
REFERENCES CITED

Anders, Ferdinand, Maarten Jansen, and Luis Reyes García

Anders, Ferdinand, Maarten Jansen, Luis Reyes García, and Gabina Aurora Pérez Jiménez

Andrews, George F.

Arancón García, Ricardo

Ashmore, Wendy

Balkansky, Andrew K., Verónica Pérez Rodriguez, and Stephen A. Kowalewski

Blanton, Richard E.

Boone, Elizabeth H.

Brüggemann, Jürgen Kurt

Burkhart, Louise M.

Calnek, Edward E.

Clark, John E.


Contreras Sánchez, Eduardo

Crouch, Dora P., Daniel J. Garr, and Axel I. Mundingo

Cullen, G.

Evans, Susan T.


García García, María Teresa

Grove, David C.

Hicks, Frederic

Kirchhoff, Paul, Lina Odena Güemes, and Luis Reyes García (editors)
1976 Historia tolteca-chichimeca. Instituto Nacional de Antropología e Historia, Mexico City.

Klein, Cecelia F.

Lawrence, Denise L., and Setha M. Low

Lilley, Keith D.

2005 Urban Landscapes and Their Design: Creating Town from Country in the Middle Ages. In Town and Country in the

López Luján, Leonardo
1989 La recuperación mexica del pasado teotihuacano. Instituto Nacional de Antropología e Historia, Mexico City.


López Luján, Leonardo, Hector Neff, and Saburo Sugiyama

López Luján, Leonardo, Jaime Torres, and Aurora Montúfar

Love, Michael W.

Low, Setha M.

Marcus, Joyce

Marquina, Ignacio
1960 El templo mayor de México. Instituto Nacional de Antropología e Historia, Mexico City.

Martínez Vargas, Enrique, and Ana María Jarquín Pacheco

Mastache, Alba Guadalupe, and Robert H. Cobean

Mastache, Alba Guadalupe, Robert H. Cobean, and Dan M. Healan

Matos Moctezuma, Eduardo

Moore, Jerry D.
Nicholson, H. B.

Nowotny, Karl Anton

Olmeda Vera, Bertina

Rapoport, Amos

Ringle, William M., and George J. Bey, III

Rojas, José Luis de
1986 México Tenochtitlan: economía e sociedad en el siglo XVI. Fondo de Cultura Económica, Mexico City.

Sahagún, Fray Bernardino de


Séjourné, Laurette
1983 El pensamiento náhuatl cifrado por los calendarios. Siglo Veintiuno, Mexico City.

Smith, Adam T.

Smith, Michael E.


2006c La fundación de los capitales de las ciudades-estado aztecas: la recreación ideológico de Tollan. In Fundación, refundación y Relocalización de las ciudades Maya (tentative title), edited by Andrés Ciudad Ruiz, and Maria Josefa Iglesias Ponce de León. Sociedad Española de Estudios Mayas, Madrid.

n.d.-a Aztec City-State Capitals. Series: Ancient Cities of the New World. University Press


2. Epicenters of cities in the state of Morelos, showing the Tula plaza plan.
4. Epicenters of cities in the Basin of Mexico and Tlaxcala.

6. Shrines or low altars. A: Teopanzolco; B: Tlatelolco; C: Tenayuca; D: Ixtapaluca (Acozac). Photographs by the author.
7. The central plaza (epicenter) or Coatetelco, a city in Morelos (M.E. Smith 2003:fig. 8.2).

8. Epicenters of three post-Teotihuacan central Mexican cities.