

Archaeology and the Aztec empire

Michael E. Smith and Frances F. Berdan

Is there an archaeology of the Aztec Empire?

The relative invisibility of the Aztec empire in archaeological terms has long been noted by scholars, and three explanations of this condition have been offered. First, some authorities do not accept that the Aztec phenomenon was a 'real empire' like the Roman or Inca empires, and therefore are not surprised to find few obvious Aztec archaeological remains outside of the Basin of Mexico core area (e.g. Davies 1974: 110; Conrad and Demarest 1984: 53). A second viewpoint holds that the Aztec polity does indeed deserve the designation 'empire', but the indirect or hegemonic nature of provincial control did not lead to major Aztec investments in material remains in the provinces (e.g. Hassig 1985; Smith 1986). A third explanation is that archaeologists have not carried out a sufficient number of problem-oriented projects addressing this issue to evaluate fully the effects of Aztec imperialism, whatever form they may have taken (e.g. Smith 1987).

In this article we argue that two of these explanations – the nature of imperial organization and a lack of relevant archaeological studies – together account for the low archaeological visibility of the Aztec empire outside of the Basin of Mexico. We describe the results of a new ethnohistorical analysis of the strategies of Aztec imperialism (Berdan et al., forthcoming) which suggest the nature of material remains that should be associated with the Aztec empire. We then review existing archaeological evidence which, although it sheds little light on the nature of imperial activities, does illuminate the socioeconomic context of central Mexican polities on the eve of imperial expansion. Finally, we present the results of a recent excavation project designed to evaluate the effects of Aztec conquest in a provincial area.

Problems with the archaeological evidence

Before the Aztec empire can be defined archaeologically, two deficiencies of the existing evidence must be confronted. First, the number of archaeological studies of Late Postclassic or Aztec-period sites outside of the Basin of Mexico is quite small (e.g. Medellín Zenil 1952; Sisson 1973; Smith 1987, in press; Stark 1990), in comparison to earlier time periods. Aztec objects and styles are abundant in provincial areas, but few of the finds are from systematic, well-documented fieldwork projects. We feel that additional

problem-oriented research is badly needed to provide an adequate analysis of the material consequences of Aztec imperialism.

The second problem with existing archaeological data is a lack of appropriate methods. Archaeological traces of the short-lived, loosely organized, Aztec empire are not obvious and clear, and it may take sophisticated methods of fieldwork and analysis to study them adequately. One important example is chronological refinement. In the Basin of Mexico and adjacent areas, the relevant temporal unit is the Late Postclassic period, from AD 1350 to 1520 or later. Because the Aztec empire was established in 1430, it is difficult, if not impossible, to say whether Late Postclassic archaeological remains pertain to the pre-imperial period, to imperial times, or to some mixture of the two. There is currently only one area – western Morelos – where the archaeological chronology is sufficiently refined to separate pre-imperial and imperial phases within the Late Postclassic period (Smith 1987, *in press*). Other methods which need to be employed in the study of Aztec imperialism include the excavation of domestic contexts and the scientific analysis of the excavation data, problem-oriented settlement pattern studies, and the quantified analysis of data. Before considering the archaeological evidence for Aztec imperialism, we need to examine the ethnohistorical record on the Aztec empire.

The organization of the Aztec empire

In the year 1430 three powerful city-states in the Basin of Mexico joined in an alliance designed for military, political, and economic control of their neighbors. By 1519, when Hernando Cortés set foot on the Mexican coast, that control had swept beyond their immediate neighbors into the highlands and lowlands of central and southern Mexico. Also by that time, the Mexica of Tenochtitlan had emerged as the military leaders, supported by their allies, the Acolhua of Texcoco and the Tepaneca of Tlacopan.

During the empire's 90-year history, the imperial capitals grew in size, political importance, and opulence. Tenochtitlan probably housed 150,000–200,000 residents, while its island neighbor Tlatelolco hosted the Basin's greatest marketplace. Luxurious multi-room palaces, serving as houses of state as well as residences of rulers and nobles, abounded in the many cities dotting the Valley (see below). The social order was strongly hierarchical, with power and privilege the prerogative of a largely hereditary nobility. Here in the imperial core worked a great variety of specialists, ranging from mat-makers to fine-stone lapidaries; the luxury specialists in precious stones, valuable metals, and dazzling feathers were especially concentrated in these cities, for they served the sumptuary needs of the many nobles.

It is not surprising that the Aztec empire is best known through reports from its centers of power. The early chroniclers of the empire such as Durán (1967) derived their histories from informants and experience in the Basin of Mexico, presenting the Aztec conquerors' point of view, and the major indigenous and indigenous-style pictorial manuscripts detailing imperial conquests and tribute also focus on the overarching demands of the imperial core polities (Pl. 1). Most of the data for the reconstruction of the Aztec empire has derived from these and similar ethnohistoric sources (e.g. Barlow 1949; Gibson 1971; Davies 1974, 1987; Hassig, 1985, 1988; Conrad and Demarest 1984), although archaeology

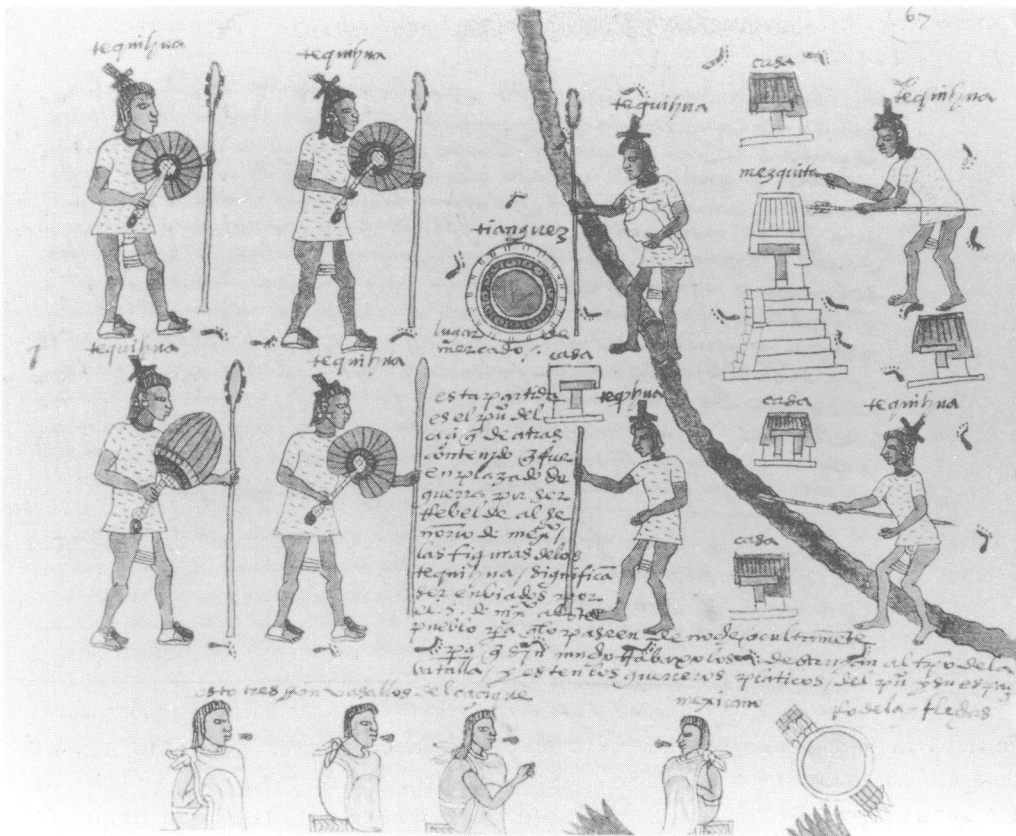


Plate 1 Aztec warriors surround an enemy village in preparation for its conquest (*Codex Mendoza*, folio 67r, top; see Cooper-Clark 1938).

is now beginning to make a contribution (e.g. Brumfiel 1987; Smith 1987; Matos Moctezuma 1988; Stark 1990).

More recent ethnohistoric research has sought to unravel the relations between the conqueror and conquered, focusing on the smaller, subordinate polities in the Basin of Mexico (e.g. Hicks 1984). A reconstruction of the empire on a broad scale, from core to outermost frontier, has recently been undertaken by a group of scholars who are combining the approaches of ethnohistory, archaeology, and art history (Berdan et al., forthcoming). This collaboration has resulted in a substantially revised view of the goals and processes of empire-building in a geographical framework, including a detailed new map of the empire that supersedes Barlow's (1949) classic plan.

When we plotted information such as conquest patterns and tribute requirements on the map, it quickly became apparent that there were two spatially distinct forms of imperial administration in the outer empire. We defined two types of provinces – tributary and strategic – representing two quite different strategies of imperial administration. *Tributary provinces* are defined simply as the thirty-eight provinces included in the *Codex Mendoza* tribute roll (Berdan and Anawalt, in press). In this document, the provinces are presented together in a uniform format; it is reasonable to assume that they formed meaningful

segments of the empire, paid tribute on similar bases, and were arranged into provinces on geographic, historical, and perhaps administrative criteria (Berdan et al., forthcoming). They provided predictable, sustained supplies of goods to burgeoning urban centers: foodstuffs that aided in subsistence, luxuries that underwrote the élite's high standard of living, and warrior costumes that rewarded and highlighted daring deeds on the battlefield.

Compared to the strategic provinces, tributary provinces are generally in the interior portion of the empire and physically separated from the major imperial enemies. Most of the tributary provinces were incorporated into the empire earlier than the strategic provinces and, in at least some cases, imperial control was facilitated by previously existing élite alliance networks and exchange systems linking external polities with those of the Aztec core area (Smith 1986). The incorporation of these regions into the empire opened large areas for reliable trade and market networks, again facilitating a sustained and quite predictable flow of goods to the imperial cities. Indeed, in some cases tribute demands encouraged increased trading, in situations where tribute goods entered a province through long-established trade and market networks (Berdan 1985). These tributary provinces, especially those in the most distant, outlying areas, were not without hostile outbreaks and military tensions, and the empire did station garrisons of warriors, sometimes at newly-constructed fortresses, in some of these regions. However, these garrison centers served primarily to hold the empire's borders, a function more often performed by the strategic provinces.

The *strategic provinces* constituted a frontier strategy. City-states in strategic provinces were incorporated into the Aztec imperial realm, but on a different basis than the tributary provinces. Their geographic location seems especially significant: for the most part they lay along hostile borderlands and had military value; they dominated routes which served as major arteries for trade or extended military action; or they were situated handily for commerce and served as trading entrepôts. The Mexica established client-like relations with these city-states, maintaining them as buffers and sometimes establishing fortresses or garrisons at their borders. Tribute payments were not laid out in contract-like terms, as in the case of the tributary provinces, but rather rendered as 'gifts' when asked; sometimes the Mexica reciprocated with gifts of their own, especially in the form of war matériel to assist in the near-constant internecine frontier warfare. These strategic provinces have special military value in insulating tributary provinces from warlike activity along enemy borders.

Our distinction between tributary and strategic provinces outside of the Basin of Mexico corresponds closely to Hicks' (1984) distinction between 'tributary subjugation' and 'political subjugation.' Drawing on data from Texcoco within the Basin, Hicks argues that tributary control involved the regularly scheduled payment of goods, along with obligations for rotational labor, while political control involved military service, corvée labor, and the offering of 'gifts' to an overlord. Although there were significant differences between the Aztec core area and the outer provinces in the nature of imperial administration, the fact that the two types of control were present in both areas indicates that these were fundamental principles of Aztec imperial strategy and policy.

Aztec material remains in the provinces

Expectations

The application of Stark's (1990) analysis of political relations between expansionist and subordinate states to our model of Aztec imperialism leads to a number of expectations for the archaeological manifestation of the Aztec empire in provincial areas. The limited extent of Aztec meddling in provincial affairs (Hassig 1985; Berdan et al., forthcoming) indicates that there should be little imperial construction or other evidence of direct administration. The tributary provinces, examples of Stark's 'indirect administration,' should show evidence for a long history of trade and interaction, both before and after areas are conquered by the Aztecs. Measurable effects of Aztec conquest should include an increase in long-distance trade and several responses to higher tribute demands (at both the imperial and local levels: see Smith 1986), such as intensified production of foodstuffs and craft goods, and lowered standards of living due to the increased exploitation of provincial commoners.

The strategic provinces, corresponding to Stark's 'asymmetrical alliance' category, should show lower levels of interaction with the Basin of Mexico coupled with less evidence for tribute production or exploitation leading to lowered standards of living. In Stark's model these areas should show no imperial facilities, but our analysis of the strategic provinces indicates that there should be fortresses, and perhaps Aztec garrisons, along enemy borders.

These expectations are evaluated below. First, existing evidence on Aztec exports and architectural styles is reviewed, and then we present the results of a recent investigation of the effects of Aztec conquest in a provincial area. One difficulty with the data is that nearly all of the evidence comes from sites located at tributary provinces. We know of the existence of Aztec goods in some of the strategic provinces, but there is very little contextual information and it is currently impossible to make controlled comparisons between the two types of province.

Aztec exports

The occurrence of Aztec ceramics and obsidian outside of the Basin of Mexico provides considerable evidence for long-term trade between the tributary provinces and the Aztecs, both before and after the expansion of the empire. The most abundant Aztec exports in terms of distribution and frequency at archaeological sites are ceramics. The principal type is Aztec III Black-on-Orange serving bowls, with Texcoco Fabric-Marked salt containers and a few other types also common in some areas (Pl. 2). A recent distribution study identified forty-five sites and regions outside of the Basin of Mexico with Aztec III Black-on-Orange ceramics (Smith 1990). Thirty-two are located in the tributary provinces, six are in the strategic provinces, while seven are in non-imperial zones (Smith 1990: 164; Berdan et al., forthcoming). These ceramics were manufactured for nearly a century prior to the formation of the empire (Hodge and Minc 1990), and are found in both pre-imperial and imperial period archaeological contexts at sites excavated by Smith in Morelos (Smith 1987, 1990). The frequencies of Aztec ceramics at provincial sites (where



Plate 2 Imported Aztec sherds recovered from Early and Late Cuauhnahuac domestic contexts at Cuexcomate and Capilco: Aztec III Black-on-Orange bowls and plates (top left), Texcoco Fabric-Marked salt containers (top right), and Xochimilco Polychrome jars (bottom).

this can be determined) exhibit an exponential decline with distance from Tenochtitlan (Smith 1990), suggesting that relatively open commercial activity, rather than state-controlled distribution networks, was responsible for their spread; unfortunately none of the reports of Aztec ceramics from the strategic provinces provide quantitative data. The fact that Aztec ceramics are found in a number of areas outside of the empire, including the enemy state of Tlaxcalla, also refutes the notion of a distribution system closely controlled by the empire. These results are not surprising, given the fact that the Aztecs did not use the controlled distribution of ceramics as a form of imperial policy in the manner of some ancient empires like the Inca (Morris and Thompson 1985: 73–92).

Tools made of obsidian from the Pachuca source, just north of the Basin of Mexico, are a second Aztec export found at many provincial sites. These obsidian artifacts reached provincial areas like Morelos prior to the expansion of the empire, and they are also found in enemy territory. Hence the archaeological data (Smith 1990) support ethnohistoric arguments that the extensive Late Postclassic obsidian exchange was not controlled by the Aztec empire (Isaac 1986).

Aztec temples and palaces

Postclassic temples and palaces in many parts of the Aztec empire resemble buildings in the imperial core cities in the Basin of Mexico, but the evidence suggests that these

similarities precede Aztec expansion. One of the most commonly-cited examples of 'Aztec' architecture is the double-temple pyramid, of which the Templo Mayor of Tenochtitlan (Matos Moctezuma 1988) is the best-known example. However, this style originated in the Middle Postclassic period (AD 1150–1350), long before the formation of the empire, and many of the better-known examples (e.g. Tenayuca) date to that time period. Smith's unpublished ceramic analyses show that the double-temple pyramid of Teopanzolco in Morelos, sometimes offered as evidence of Aztec conquest in this area, was actually constructed during Middle Postclassic times. Apart from the double-temple plan, scholars have identified several stylistic details of temple architecture that are common on Aztec pyramids and on a few temples in provincial areas, but Umberger and Klein (forthcoming) point out problems with the dating and definition of these traits which cast doubt on their validity as markers of Aztec imperial activity.

Evans (1991) has recently identified a standardized plan for palaces in Aztec pictorial documents which is also evident at several Late Postclassic sites in the Basin of Mexico. This plan consists of a large, unroofed, central courtyard at ground level surrounded by rooms, often elevated above the courtyard (Fig. 1). In addition to the examples discussed by Evans (*ibid.*), the plan is also found at sites in the Tehuacan Valley (Sisson 1973) and at Cuexcomate in Morelos (Smith, *in press*). The Cuexcomate palace was built, occupied, and abandoned in the Early Cuahnahuac phase prior to Aztec conquest of the area, and a subsequent Late Cuahnahuac (imperial phase) palace compound is smaller and quite different architecturally. This dating suggests that the distribution of the standard Aztec palace plan was due to élite interactions and participation in a common central Mexican élite culture in the fourteenth to early fifteenth centuries. These élite networks provided a foundation for the later integration of the nearer tributary provinces (like Cuahnahuac) into the empire (Smith 1986).

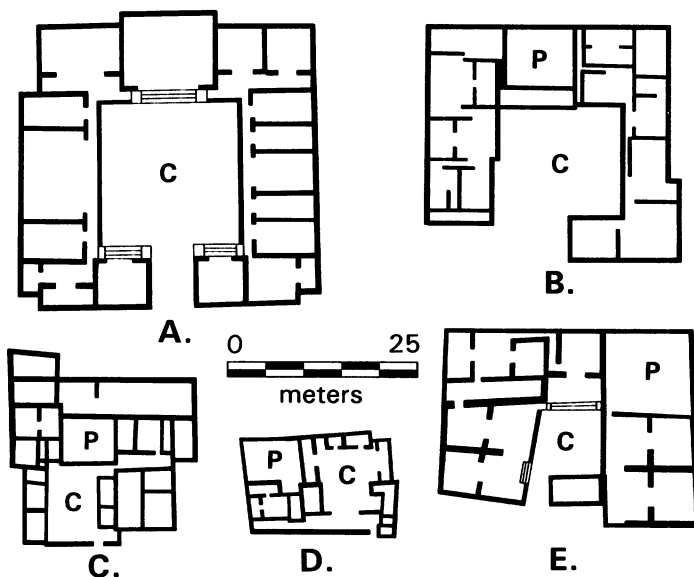


Figure 1 Aztec palace plans ('C' designates unroofed courtyard areas, and 'P' indicates likely open platforms). A: Texcoco (from the *Mapa Quinatzin*, no scale given; drawing based on Robertson 1977: fig. 7); B: Cuexcomatae (Smith, *in press*); C: Sigatecpan (Evans, 1991); D: Site Tr-65 in the Tehuacan Valley (Sisson 1973: 34–5); E: Chiconautla (from a map by George Vaillant, no scale given; Evans, 1991).

Aztec garrison centers

Ethnohistoric studies of the Aztec empire suggest that fortresses and garrison centers are among the few types of imperial installations archaeologists might expect to encounter, and at least two of these, Oztuma and Quauhtochco, have been located with confidence. The fortress of *Oztuma* is located in an area of rich mineral deposits along the Aztec-Tarascan frontier in what is now the Mexican state of Guerrero. A number of ethnohistoric sources discuss the construction and history of the fortress, stressing events like the frequent fierce battles that occurred and the forced migration of families from the Basin of Mexico to populate the area (e.g. Durán 1967, II: 351–5). Although the site has long been known to archaeologists (Armillas 1944), it has yet to be investigated in a systematic fashion, perhaps because of its remote location. Nevertheless, the fortifications are obvious, and there is Aztec pottery in the vicinity (Smith 1990).

Quauhtochco in the state of Veracruz is listed in various ethnohistoric sources as an Aztec garrison center and capital of the tributary province of the same name (e.g. Berdan and Anawalt, in press: 17v, 48r). Archaeological excavation in the 1950s (Medellín Zenil 1952) revealed a central temple resembling archaeological and pictorial examples of Aztec temples in a number of details (Umberger and Klein, forthcoming). While this alone is not sufficient to attribute the site to the Aztec empire (see above), there are other traits supporting such an interpretation. The site is fortified with a wall, and it has unusually high frequencies of Aztec ceramics. Imported Aztec sherds (mainly Texcoco Molded-Filleted incense burners and Aztec III Black-on-Orange) comprise over 20 per cent of all excavated ceramics, whereas comparative data suggest that a site at this distance from Tenochtitlan (230 km) should have fewer than 1 per cent Aztec imports (Smith 1990). While both Oztuma and Quauhtochco were located in tributary provinces, they were situated along enemy borders. We expect that increased archaeological exploration in the strategic provinces will uncover other examples of fortresses built or at least used by the Aztecs and their clients in these areas.

Case study: rural sites in Cuauhnahuac province

The Late Postclassic sites of Cuexcomate and Capilco in western Morelos were excavated by the Postclassic Morelos Archaeological Project in 1986, in part to evaluate the impact of Aztec imperialism in this area. The sites were included in the tributary province of Cuauhnahuac, and although there is no ethnohistoric documentation of these specific settlements, we know that the area was conquered by the Aztec empire around AD 1438 (Smith 1987). The local Early Cuauhnahuac (AD 1350–1430) and Late Cuauhnahuac (1430–1550) ceramic phases correspond to the pre-imperial and imperial stages respectively (Smith 1987, in press), and comparisons between the archaeological remains of these phases were sought to help evaluate the impact of Aztec conquest.

A total of thirty-five houses was excavated at the town site of Cuexcomate and nine at the village settlement of Capilco (the excavations are described by Smith (in press); see also Smith et al. 1989). Among the excavated houses at the two sites, two were occupied in the Temazcalli phase (AD 1200–1350), twenty in Early Cuauhnahuac times, and forty in



Plate 3 Ground-level house at Capilco (unit 103). This house, built in the local Late Postclassic style, was occupied in both the pre- and post-imperial periods with little change in its associated artifacts.

the Late Cuauhnahuac phase. The bulk of the population at these sites inhabited small houses of adobe brick with stone wall foundations and floors (Smith et al. 1989). In addition, there are two élite compounds or palaces at Cuexcomate, one dating to each of the Early and Late Cuauhnahuac phases. These palaces are located on a central public plaza, also bordered by a small temple-pyramid. Whereas the Early Cuauhnahuac palace at Cuexcomate conforms to a widespread central Mexican plan (see Fig. 1), the more common small houses (Pl. 3) represent a local type that does not resemble Postclassic houses in other parts of the central highlands (Smith, in press).

Based upon a general knowledge of Aztec imperialism and specific documentary data on Cuauhnahuac province, Smith expected to find little direct evidence of Aztec conquest or administration at these sites (e.g. burned buildings or imperial storehouses). However, ethnohistory and prior limited archaeological evidence (Smith 1987) suggested that indirect political and economic effects of Aztec imperialism may have been pronounced. Aztec conquest of Cuauhnahuac should have led to increased production to meet not only imperial tribute demands, but also increased local and regional tribute exactions, thereby lowering the standard of living among commoners (Smith 1986). Several specific hypotheses on the effects of Aztec conquest were supported by the excavation data, while others were not (relevant quantitative data on artifactual remains are presented in Table 1).

The following hypotheses were confirmed:

1. *Increased textile manufacture*, suggested by the importance of cotton textiles in

Table 1 Changes in selected artifact frequencies at Cuexcomate and Capilco, Morelos^a.

Category	Quantification ^b	Temazcalli (AD 1200–1350)		Early Cuauhnahuac (AD 1350–1430)		Late Cuauhnahuac (AD 1430–1550)	
		Mean	S. Dev.	Mean	S. Dev.	Mean	S. Dev.
Number of houses	–	2		12		35	
<i>Obsidian</i>	A	15	13	34	20	37	22
<i>Imported ceramics:</i>							
Basin of Mexico	B	3.0	0.1	7.3	4.0	7.2	2.8
Morelos	B	8.6	2.1	3.4	2.7	1.0	1.3
Other Areas	B	0.1	0.1	0.5	0.5	0.1	0.2
<i>Spinning artifacts:</i>							
Spinning Bowls	B	2.6	0.7	3.8	2.1	5.4	2.4
Spindle Whorls	B	0.1	0.2	1.3	1.2	2.0	2.3
<i>Wealth index</i>	C	51.4	1.9	49.3	12.4	36.5	9.1

a This table presents artifact frequencies from well-dated midden deposits associated with houses at Cuexcomate and Capilco. Only unmixed levels with over 100 sherds are included in the counts.

b Type of quantification:

A: Pieces of obsidian per 1,000 sherds.

B: Percent of all ceramic vessels and artifacts, as calculated using minimum number of vessel estimates.

C: Frequency of local decorated serving ware (expressed as percent of all ceramic vessels and artifacts) plus two times the frequency of all imported ceramics.

Cuauhnahuac's imperial tribute (Berdan and Anawalt, in press: 23r, 23v), did occur, although only to a limited extent. Cotton spinning artifacts increase in frequency (Table 1), and this change took place primarily at Capilco, with little change at Cuexcomate.

2. *Increased agricultural production* was hypothesized as a response to tribute demands in foodstuffs and cotton textiles, and there is strong indirect evidence for agricultural intensification in the form of expanded construction of hillside and cross-channel terraces around the sites (Smith, in press).

3. Imperial and local tribute demands were hypothesized to cause a *lowered standard of living* at rural producer sites. This change was confirmed in several dimensions. There was an overall lowering in the standard of living, as measured by an artifactual wealth index (Table 1); there is clear architectural and artifactual evidence for a decline in the wealth and influence of the élite group at Cuexcomate; and these changes were accompanied by reduced élite/commoner differences in Late Cuauhnahuac times (Smith, in press). The abandonment of the Early Cuauhnahuac palace prior to construction of a more modest Late Cuauhnahuac élite compound could represent a more direct effect of Aztec conquest, but this is difficult to evaluate (see below).

While these three findings were consistent with initial expectations, two others were not:

1 *Increased interaction with the Basin of Mexico* was expected on the basis of ethnohistory and prior archaeological findings (Smith 1987). Although this should be one of the most significant changes brought about by imperial conquest (Doyle 1986), in fact the data suggest the opposite result. Imported Aztec ceramics and obsidian did increase dramatically between Temazcalli and Early Cuauhnahuac times, but this transition occurred nearly a century *prior* to the Aztec conquest, and there was almost no change between Early and Late Cuauhnahuac. As mentioned above, the Early Cuauhnahuac palace at Cuexcomate closely resembles Aztec models (Fig. 1), while the more modest Late Cuauhnahuac palace does not, suggesting a lower level of élite stylistic interaction after Aztec conquest.

2 An hypothesis of *increased trade with areas other than the Basin of Mexico*, derived from ethnohistory (e.g. Berdan 1985), was in fact reversed by the ceramic data (Table 1). However, the decline in regional imports could be a consequence of imperial expansion, either through interference in long-distance trade or as a consequence of lowered wealth levels that reduced the amount of long-distance trade.

The lack of greater interaction with the polities of the Basin of Mexico may cast doubt on Aztec imperialism as the sole or primary cause of the Early to Late Cuauhnahuac changes, and regional demographic trends suggest that a local economic crisis was at least partially responsible. Cuexcomate and Capilco are located in an agriculturally marginal area, yet the Late Postclassic period witnessed a dramatic growth in population. Regional populations increased at rates of 1.6 per cent annually between Temazcalli and Early Cuauhnahuac, and 1.0 per cent annually between Early and Late Cuauhnahuac (Smith, in press). This suggests that the intensification of agricultural production (and perhaps of textile manufacture) and the decline in standards of living were part of a local demographic-economic crisis that began in the fourteenth century. The added effects of Aztec conquest, perhaps including the demotion of the Early Cuauhnahuac élite group

inhabiting the earlier Cuexcomate palace, then probably aggravated the situation. Unfortunately, we run up against a methodological problem in the study of ancient imperialism: how can we determine whether observed changes were caused by the direct actions of foreign conquest, the indirect effects of imperial expansion, or local processes only distantly related to imperial activities (see Stark 1990: 262)? We suggest that the answer lies in additional problem-oriented fieldwork, carried out in a context of theoretical and comparative models of ancient imperialism (e.g. Doyle 1986; Stark 1990; Berdan et al., forthcoming).

Conclusions

In assessing the material expressions of imperialism, scholars need to consider the organization and strategies of the empire in question. There is wide variation in the nature of ancient empires (see Doyle 1986), and not all will leave the same kinds of archaeological traces in their provinces. The distinction between the tributary and strategic provinces is crucial for our understanding of Aztec imperialism, and they should exhibit distinctive material remains. Unfortunately, the lack of systematic archaeological research in the strategic provinces prevents our evaluation of this hypothesis. Our recent analysis of ethnohistoric documentation suggests that there ought to be little direct archaeological evidence for Aztec imperialism outside of the Basin of Mexico (Berdan et al., forthcoming), and this is indeed the case. However, one of the few kinds of Aztec physical installations to be expected in provincial areas – the fortress/garrison center – can be identified archaeologically.

Another major set of Aztec institutions – the markets and long-distance trade networks – is also quite visible archaeologically. However, this trade preceded the formation of the empire and available evidence indicates that much of it was relatively open and independent of direct state control (Berdan 1985; Isaac 1986; Smith 1990). Nevertheless, the expansion of the empire further stimulated trade by providing greater opportunities for merchants and by forcing polities to pay tribute in goods not available locally (Berdan 1985). Again, we come up against the problem of sorting out local and imperial factors as the causes of observed changes.

The value of Aztec exports and styles in provincial areas may lie more in what they tell us about pre-imperial conditions and the socioeconomic context of imperial expansion than in what they reveal about the operation or extent of the empire itself. One of the limitations of central Mexican ethnohistory is its lack of extended time depth. The written sources usually have little information on pre-imperial society, beyond a narrow range of phenomena in the imperial core area. However, a deeper temporal perspective is one of the strengths of archaeology, and the archaeological data discussed above help document the conditions that preceded and even facilitated the expansion of the empire. For example, the close economic and social ties between Tenochtitlan and the polities of the tributary provinces were built on a foundation of a spatially-extensive common elite culture that preceded the empire by at least a century. Ethnohistory provides some limited evidence for this (Smith 1986), but more direct data come from archaeological findings like

the common Aztec palace plan or the similarity of ritual objects and fancy serving bowls over a large area.

While these observations indicate some of the contributions that archaeology has made toward the study of the Aztec empire, the full potential of the archaeological record will not be realized until additional problem-oriented fieldwork projects are carried out. This research needs to include chronological refinement as a goal, in order to distinguish the pre-imperial and imperial stages, and it needs to include an adequate understanding of the organization of the Aztec empire and its variations over time and space. The effects of Aztec imperialism were not dramatic and obvious, and archaeologists need to employ sophisticated methods and models if they are to make progress in this area. In our view, archaeology and ethnohistory in Mesoamerica are neither opposed nor congruent; rather they are complementary, and both provide crucial information on the growth and operation of the Aztec empire.

Acknowledgements

We would like to thank the Director and Trustees of Dumbarton Oaks for sponsoring the 1986 Summer Seminar, 'Empire, Province, and Village in Aztec History'. Our collaborators in the seminar and in the book currently under preparation are Richard Blanton, Elizabeth Boone, Mary Hodge, and Emily Umberger, all of whom have made major contributions to our thinking about the Aztec empire, as discussed in this article. Smith's fieldwork at Cuexcomate and Capilco was funded by the National Science Foundation, the National Endowment for the Humanities, and Loyola University. This work was carried out with the permission of the Instituto Nacional de Antropología e Historia. John Doershuk helped with much of the statistical analysis, some of which is presented here, and Cynthia Heath-Smith provided helpful comments on earlier drafts of this article. The Audio-Visual Department of California State University – San Bernardino aided in the production of Pl. 1.

30.vii.91

M. E. Smith
Department of Anthropology
State University of New York at Albany
Albany, New York 12222

F. F. Berdan
Department of Anthropology
California State University
San Bernardino, California 92407

References

Armillas, P. 1944. Oztuma, Guerrero: Fortaleza de los Mexicanos en la frontera de Michoacan. *Revista Mexicana de Estudios Antropológicos*, 6: 157–65.

- Barlow, R. H. 1949. *The Extent of the Empire of the Culhua-Mexica*. Ibero-Americana 28. Berkeley: University of California Press.
- Berdan, F. F. 1985. Markets in the economy of Aztec Mexico. In *Markets and Marketing* (ed. S. Plattner). Lanham, MD: University Press of America, pp. 339–67.
- Berdan, F. F. and Anawalt, P. In press. *The Codex Mendoza*. Berkeley: University of California Press.
- Berdan, F., Blanton, R. E., Boone, E., Hodge, M., Smith, M. and Umberger, E. Forthcoming. *Aztec Imperial Strategies*.
- Brumfiel, E. M. 1987. Elite and utilitarian crafts in the Aztec state. In *Specialization, Exchange, and Complex Societies* (eds E. M. Brumfiel and T. K. Earle). Cambridge: Cambridge University Press, pp. 102–18.
- Conrad, G. W. and Demarest, A. A. 1984. *Religion and Empire: The Dynamics of Aztec and Inca Expansion*. Cambridge: Cambridge University Press.
- Cooper-Clark, J. (ed. and trans.) 1938. *The Codex Mendoza*, 3 vols. London: Waterlow & Sons.
- Davies, N. 1974. *The Aztecs: A History*. Norman: University of Oklahoma Press.
- Davies, N. 1987. *The Aztec Empire: The Toltec Resurgence*. Norman: University of Oklahoma Press.
- Doyle, M. 1986. *Empires*. Ithaca, NY: Cornell University Press.
- Durán, D. 1967. *Historia de Las Indias de Nueva España*, 2 vols (ed. A. M. Garibay K.). Mexico City: Porrúa.
- Evans, S. T. 1991. Architecture and authority in an Aztec village: Form and function of the tecpan. In *Land and Politics in the Valley of Mexico* (ed. H. H. Harvey). Albuquerque: University of New Mexico Press, pp. 63–92.
- Gibson, C. 1971. Structure of the Aztec empire. In *Archaeology of Northern Mesoamerica*, part 1 (eds G. Ekholm and I. Bernal). *Handbook of Middle American Indians*, vol. 10. Austin: University of Texas Press, pp. 376–94.
- Hassig, R. 1985. *Trade, Tribute, and Transportation: The Sixteenth Century Political Economy of the Valley of Mexico*. Norman: University of Oklahoma Press.
- Hassig, R. 1988. *Aztec Warfare: Imperial Expansion and Political Control*. Norman: University of Oklahoma Press.
- Hicks, F. 1984. La posición de Temascalapan en al Triple Alianza. *Estudios de Cultura Náhuatl*, 10: 235–60.
- Hodge, M. and Minc, L. 1990. The spatial patterning of Aztec ceramics: implications for prehispanic exchange systems in the Valley of Mexico. *Journal of Field Archaeology*, 17: 415–37.
- Isaac, B. L. 1986. Notes on obsidian, the pochteca, and the position of Tlatelolco in the Aztec empire. In *Economic Aspects of Prehispanic Highland Mexico* (ed. B. L. Isaac). *Research in Economic Anthropology, Supplement*, no. 2. Greenwich, CT: JAI Press, pp. 319–343.
- Matos Moctezuma, E. 1988. *The Great Temple of the Aztecs*. New York: Thames & Hudson.
- Medellín Zenil, A. 1952. *Exploraciones de Quauhtochco*. Jalapa: Universidad Veracruzana.
- Morris, C. and Thompson, D. 1985. *Huánuco Pampa: An Inca City and Its Hinterland*. New York: Thames & Hudson.
- Robertson, D. 1977. Domestic architecture of the Aztec period: 'Mapa de Quinatzin'. In *Del Arte: Homenaje a Justino Fernández*. Mexico City: Universidad Nacional Autónoma de México, pp. 11–26.

- Sisson, E. B. 1973. *First Annual Report of the Coxcatlan Project*. Andover: R. S. Peabody Foundation.
- Smith, M. E. 1986. The role of social stratification in the Aztec empire: A view from the provinces. *American Anthropologist*, 88: 70–91.
- Smith, M. E. 1987. The expansion of the Aztec empire: a case study in the correlation of diachronic archaeological and ethnohistorical data. *American Antiquity*, 52: 37–54.
- Smith, M. E. 1990. Long-distance trade under the Aztec empire: the archaeological evidence. *Ancient Mesoamerica*, 1: 153–69.
- Smith, M. E. In press. *Archaeological Research at Aztec-Period Rural Sites in Morelos, Mexico. Vol. 1, Excavations and Architecture*. Memoirs in Latin American Archaeology, no. 4. Pittsburgh: University of Pittsburgh.
- Smith, M. E., Aguirre, P., Heath-Smith, C., Hirst, K., O'Mack, S. and Price, T. 1989. Architectural patterns at three Aztec-period sites in Morelos, Mexico. *Journal of Field Archaeology*, 16: 185–203.
- Stark, B. L. 1990. The Gulf Coast and the Central Highlands of Mexico: alternative models for interaction. *Research in Economic Anthropology*, 12: 243–85.
- Umberger, E. and Klein, C. Forthcoming. Aztec art and imperial expansion. In *Latin American Horizons* (eds E. Boone and D. Rice).

Abstract

Smith, Michael E. and Berdan, Frances F.

Archaeology and the Aztec empire

This article provides two explanations for the relative lack of archaeological evidence for the existence of the Aztec empire. First, the nature of Aztec imperial strategies and organization did not lead to extensive patterned material remains in provincial areas. Second, archaeologists have been slow to address issues of Aztec expansion with problem-oriented fieldwork projects. We describe new ethnohistoric and archaeological research on the Aztec empire outside of the Basin of Mexico and show how both kinds of information are needed to provide an adequate account of Aztec imperialism and its effects in Postclassic Mesoamerica.