

MESOAMERICAN TERRITORIAL BOUNDARIES: RECONSTRUCTIONS FROM
ARCHAEOLOGY AND HIEROGLYPHIC WRITING

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Introduction

Archaeologists working with Mesoamerican societies have long been interested in integrating textual data (hieroglyphic writing) with archaeological data (survey and excavation results), but so far there have been only a few efforts along these lines. There are two reasons for this: firstly, both textual analysis and archaeology are fields requiring increasing specialisation; this trend has tended to work against scholars who wished to combine the two lines of information. Secondly, there are at least two possible ways that texts and archaeology can be related to each other:

1. they may overlap in theme, scope, and content;
2. they may constitute non-overlapping, complementary sets of data.

One theme we can approach through texts and archaeology is that of territorial boundaries. In fact, several lines of evidence -- ethno-historic, linguistic, archaeological, and textual -- can be brought to bear on this theme. While archaeologists in many parts of the world have often had to limit themselves to pottery styles and architecture to reconstruct territorial boundaries, Mesoamericanists are fortunate in having at their disposal the additional evidence mentioned above.

In this paper we will look at how texts and archaeology can be integrated to reconstruct territorial boundaries for the Aztec of Central Mexico, the Mixtec and Zapotec of Oaxaca, and the Maya of Southern Mexico and Guatemala. In our conclusions, we will evaluate the degree of fit between these different lines of evidence.

Mesoamerican Place Signs

Place signs are among the hieroglyphs most frequently encountered in preColumbian or early Colonial codices¹ and carved stone monuments (Figure 1). While quite easy to classify as 'place signs', many remain to be 'deciphered' or identified. For the Aztec, more than 500 place signs are known, many of them identifiable only because of the Spanish and/or Nahuatl glosses² which were added to clarify the otherwise pictographic signs. While several hundred place signs are also depicted in the Mixtec historical codices, only 20 to 40 have so far been identified with confidence. For the Mixtec lienzos³ we have had much greater success in identifying localities, because they, like the Aztec documents, often include glosses added in Mixtec and/or Spanish. For the Zapotec, over 60 place signs are known from stone inscriptions, and some 10 or so have been identified. In the few lienzos or Colonial maps for

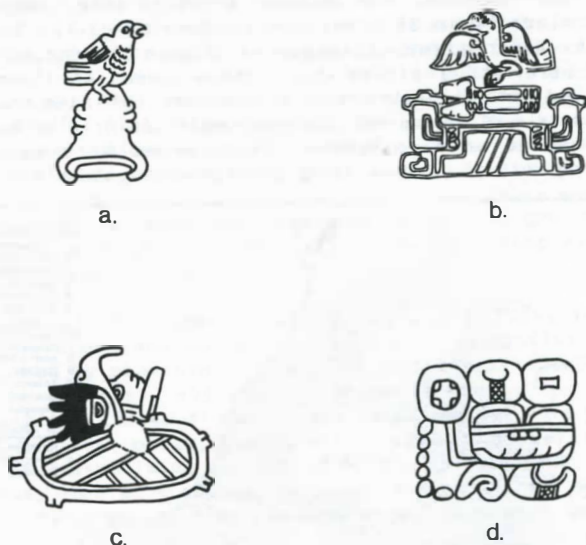


Figure 1: Place signs from four Mesoamerican writing systems. (a) Nahuatl glyph for Tututepec (Hill of the Bird); (b) Zapotec glyph for Tututepec; (c) Mixtec glyph for Tututepec; (d) Mayan glyph for Yaxchilán.

the Zapotec area, we are also fortunate in having some glosses added in Spanish, Zapotec, and/or Nahuatl. Finally, for the Maya we know of more than 40 hieroglyphic signs that refer to places; at least 25 of these identify specific archaeological sites. Since the Maya place names occur on multi-ton stones that were not moved from city to city -- and since those monuments often include dynastic records referring to the resident nobility of that city -- we have had some success in identifying Maya place names, particularly at those sites with numerous monuments.

In Mesoamerica, place signs were used to designate (1) tributary areas, (2) conquered towns, (3) shrines visited during pilgrimages, (4) seats of dynastic power, and (5) frontier or boundary towns that delimited political, administrative, or economically-controlled territories. Thus, by plotting the geographical extent of place signs, we are often in a position to suggest territorial boundaries to be compared with the archaeological evidence.

Aztec Territorial Boundaries

Rather than being a politically unified, highly integrated polity, the Aztec 'empire' was in fact a Triple Alliance between three cities (Tenochtitlán, Tlacopan, and Texcoco) which jointly managed to conquer 489 towns, located in 38 provinces containing c. 15 million people speaking several different languages (Figure 2). Outside the Basin of Mexico, where all 3 cities lay, there were (1) territories not incorporated into the Aztec 'empire', which retained their autonomy; and (2) a mosaic of towns and provinces which paid tribute to the Aztec. Newly-conquered or reconquered territories were expected to pay specified amounts of tribute every 80 days, semi-annually, or annually.

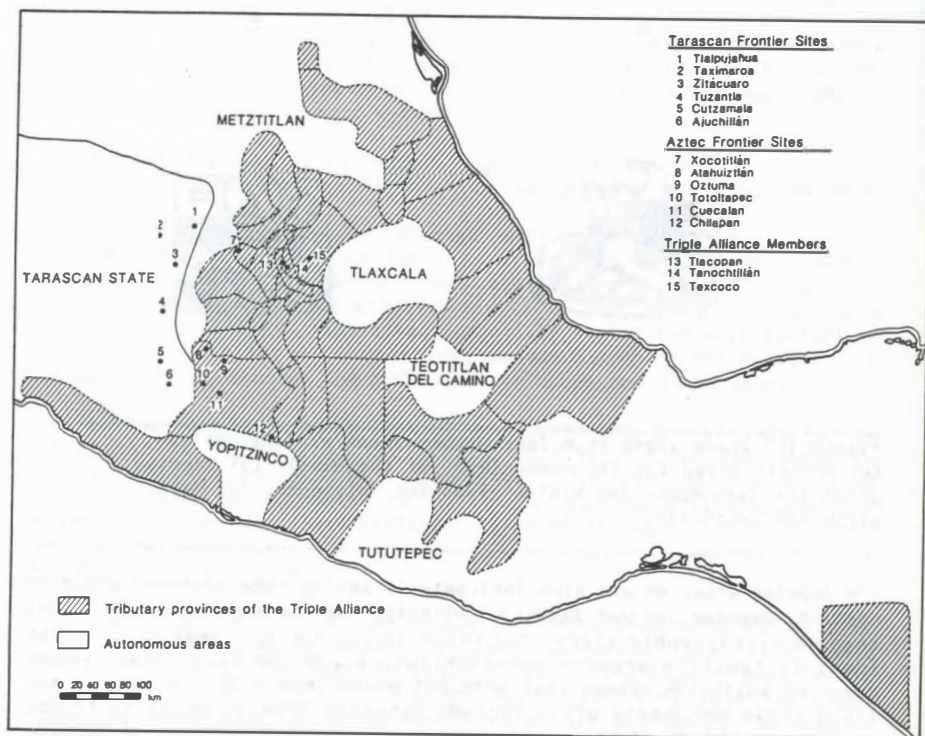


Figure 2: Reconstruction of the territorial limits of the Aztec tributary 'empire', including the Aztec-Tarascan frontier zone (adapted from Barlow 1949 and Brand 1943).

For the purpose of reconstructing the territorial limits of the Aztec 'empire', one can compile the names of these tributary towns, and the quantities and kinds of goods they paid, using the Matrícula de

Tributos, the Codex Mendoza, and the Información de 1554 of Velasco and Quesada. The Matrícula de Tributos is a pictographic display of towns paying tribute, with each page representing a tributary 'province'. The toponyms of the towns paying tribute within that 'province' are listed along the bottom of each page; for example, most of the Matlatzincaspeaking towns appear together on one page. Barlow (1949, 2) suggested that the first town listed on each page was the administrative centre for its province. The second part of the Codex Mendoza (Clark 1938) also supplies us with the toponyms, and the amount and kind of tribute exacted from each subject province; here place names are usually listed along the left margin and bottom of each page (Figure 3). The Información de 1554 is a document that gives the Aztec answers to 15 questions asked by the Spaniards regarding tribute in pre-Conquest and early post-Conquest Mexico; the first nine questions request data regarding pre-Conquest tribute.

The order of the pages in all 3 documents tends to follow a pattern. Provinces located in the area near the capital are listed first, followed by provinces in the south of the tributary 'empire', then those in the east, and finally those in the north. Almost all provinces within a 200 km-radius of the Aztec capital were required to give cotton mantles, maize, beans, chia (sage), and amaranth (Berdan 1975, 109). An overwhelming proportion of the tribute goods were manufactured items, such as clothing, warriors' costumes, reed mats, bowls, gold objects, necklaces of precious stones, and mosaics (Figure 3).

From the Matrícula de Tributos and Codex Mendoza we know some of the tributary towns that define part of the western frontier of the Aztec tributary state. From north to south, these were Xocotitlán, Alahuiztlán, Oztuma, Cuercalan, and Chilapan. This western frontier occurred where Aztec expansion was halted by the armies of the indomitable Tarascan peoples. From ethnohistorical sources (e.g. the Relaciones Geográficas de la Diócesis de Michoacán: Corona Nunez 1958), we know that both the Aztec and the Tarascans maintained a chain of forts along their respective frontiers. The zone in between was a no-man's-land inhabited by minority peoples known as the Otomí, Mazahua, Matlatzincas, Chontales, Cuiclatecos, and 'Chichimecs'. Since these groups occupied the 'buffer zone' between the Tarascans and the Aztec, it appears that the Tarascan and Nahuatl language areas were not contiguous, except perhaps in those areas where Aztec garrisons were established. Some of the Tarascan frontier military and administrative centres were Tlalpujahua, Taximaroa, Tuzantla, Cutzamala, and Ajuchitlán (Brand 1943; Armillas 1951).

Since all of these Tarascan frontier towns fell outside the Aztec tributary 'empire' they are not mentioned in the Aztec pictographic tribute lists such as the Codex Mendoza and the Matrícula de Tributos. Also not mentioned are some Aztec frontier towns that were required to support local Aztec garrisons. For example, Totoltepec is not listed in the Aztec tribute lists:

no les llevaba tributo por questavan en frontera con los de Mechoacan y sustentaban los soldados que alli tenian, mexicanos, y en el fuerte de Oztuma, y que algunas veces del año enbiaban presente a Mexico de mantas y piedras verdes y «hierro colorado», ques cobre.... (Pinto 1579, 149)

Totoltepec was apparently exempt from tribute payments because it provided support for one Aztec garrison there, and another at the fort of Oztuma; however, at certain times during the year Totoltepec sent 'presents' of blankets, jades, and copper to the Aztec capital.

The Aztec built the fortress at Oztuma after they had to reconquer the rebellious Chontal province. The principal fort, built on a hill with steep sides, was defended by moats and walls with parapets. Another hill nearby had a small fort surrounded by a wall. Although Oztuma was well defended, in AD 1519 the Tarascans were able to storm through the walls and besiege the main fort (Armillas 1951).

About 10 miles to the north of Oztuma was a fortified hill under Oztuma's command; this fort, near Alahuiztlán, was on a hill surrounded by three concentric walls, each with a moat. Alahuiztlán supplied Oztuma with food, arms, and troops. Iztapa, a town subject to Alahuiztlán, protected a fortified salt mine from the Tarascans.

In other words:

1. from the tribute lists of the Aztec we can draw with some precision the limits of their tributary 'empire';
2. with the ethnohistoric data, we recover information essential to drawing the linguistic and political frontiers;
3. from the archaeological record, we can actually map the fortified sites along or near the limits of the Aztec and Tarascan states.

For example, archaeology can document the presence of the Aztec garrison town of Totoltepec; ethnohistory tells us it fell ethnically in Chontal territory; and we note that the Aztec tribute lists do not refer to Totoltepec, since it was exempt from payments. On the other hand, Oztuma does appear in the Codex Mendoza as a tribute payer; ethno-historical data state that this fortress was built in AD 1487, and archaeology has provided us with the plan and location of this border fortress (Armillas 1951). Thus, without the combined use of archaeology and texts we could not reconstruct the Tarascan-Aztec frontier in any detail.

Mixtec Territorial Boundaries

The Lienzo de Jicayán is one of several Colonial period maps that show a town, place signs for its boundaries, and a series of annotated glosses added in the Mixtec language, which are intended to supply the names of the border towns (Figure 4). The coastal town of Jicayan,

depicted in the centre of the cotton cloth, is encircled by 52 place signs, all of which face inward toward Jicayán. While the place signs represent the names of boundary towns at the time of the Conquest, the glosses were added subsequently and give the names of the border towns at a later date. By consulting other written documents from the Colonial period, we can see that there is no one-to-one relationship between place sign and gloss on this particular lienzo. The map with its boundaries constitutes one 'synchronic record'; the set of glosses constitutes another 'synchronic record'.

The 20th-century boundaries of Jicayan reveal a much smaller political unit than the one that obtained at the time of the Spanish Conquest. Generally characteristic of Mesoamerica at the time of the Conquest were multiple administrative units (variously called señoríos, cacicazgos, kingdoms, or provinces) that were reasonably large regional polities. Prior to the 16th century, these polities seem to have been even larger. Such a regional polity, which apparently included Jicayán, was administered by a Mixtec ruler named Eight Deer.

Lord Eight Deer -- a ruler born in Tilantongo in the Mixteca Alta or highland Mixtec region in the 11th century AD -- may have been the first Mixtec ruler to establish such a large bureaucratic state, one not unlike that of some Aztec rulers. (Both the Aztec and the Mixtec expansionistic states may have been patterned on the earlier Toltec state.) As Eight Deer's older half-brother had a prior claim to Tilantongo, Eight Deer put all his efforts into the colony of Tututepec on the Oaxaca coast.

In the Mixtec codices -- Nuttall, Bodley, Selden, Vienna Reverse, Becker I and II, Sanchez Solis, and Colombino -- we encounter different versions of Eight Deer's life. For example, the Codex Nuttall presents his story from the perspective of the Mixteca Alta, while the Codex Colombino presents a Pacific coastal version (Smith 1963; 1973).

Eight Deer conquered more than 50 places. These conquests are depicted in the Mixtec codices as toponyms, often hill signs with an arrow thrust into the hill. This pictographic representation has an analogue in the 16th-century Mixtec language (Alvarado 1962), where one expression for "to conquer" translates "to put an arrow into the lands of another person" (Smith 1973, 33).

Once we can plot the locations of the towns conquered by Eight Deer, we should be able to delimit the political territory he controlled. From some codices there is evidence to suggest that Eight Deer eventually came to rule Tilantongo as well as Tututepec. This consolidation of coast and highland had never been achieved before by a Mixtec ruler, and it apparently was perpetuated for a time through a marriage alliance that took place between the son of Eight Deer and the daughter of a ruler from Juquila, another coastal town.

Hundreds of additional Mixtec place signs remain unidentified, so we are unable to document the 'hometowns' of scores of other dynasties; nor can we pinpoint yet the locations of all of Eight Deer's conquered towns, or the precise limits of his kingdom. However, from the ethno-historical accounts we do know that the coastal kingdom of Tututepec was powerful enough to resist incorporation into the Aztec tributary state, and we know that it had only one capital.

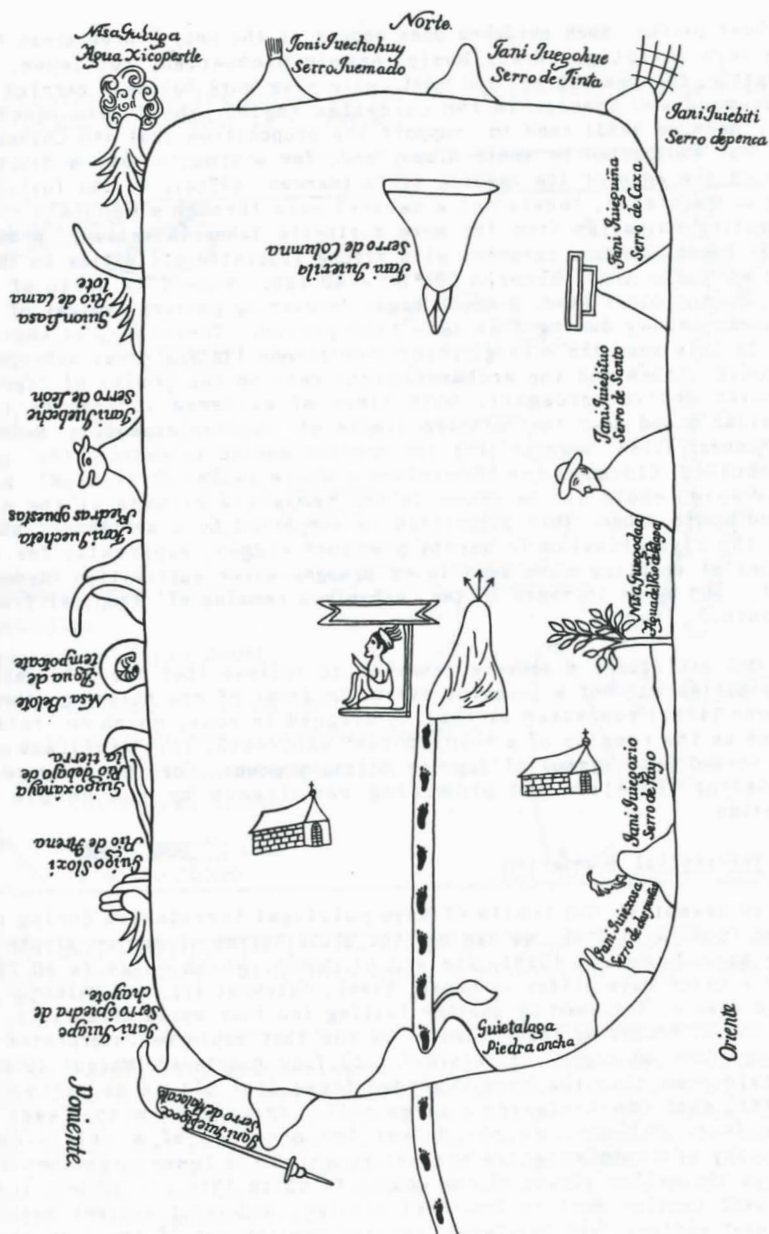
We also suspect that Jicayán was one of Eight Deer's conquests. After his fall, it came to have a territory of its own, one which seemingly shrank prior to the adding of the Mixtec glosses to the Lienzo de Jicayán. The history of changing boundaries, as derived from texts, could serve as a directive for future archaeological research. The first task might be to discover the degree of fit between boundaries given by the 16th-century texts and those that could be reconstructed on the basis of ceramic, architectural, and settlement pattern data for that period. Still more time would be needed to investigate the boundaries for earlier times.

Zapotec Territorial Boundaries

To determine the limits of the Zapotec state administered by the city of Monte Albán during the period 200 BC - AD 100, we are fortunate to have more than 50 carved stones that provide the names of conquered places. These carved slabs also include dates in the Zapotec calendar as well as various noncalendrical hieroglyphs that may provide additional data on the places subjugated. While we are still unable to identify all the places mentioned, those that have been identified so far fall outside the Valley of Oaxaca, whose geographical centre is occupied by the hilltop capital, Monte Albán. These 'conquest slabs' provide us with clues to the limits of Zapotec-controlled territory. Thus, places such as Miahuatlán, Cuicatlán, Tututepec, and Ocelotepec were most probably located near the frontiers of the Zapotec state administered by Monte Albán (Marcus 1976a; 1980).

In the Zapotec writing system, territorial boundaries were frequently given as geographical landmarks such as named mountain peaks or rivers. This tradition of delimiting Zapotec territory by named topographic features persisted into the early Colonial period. One Zapotec lienzo, produced in AD 1540 and copied in AD 1820, provides the territorial limits of communities surrounding the Zapotec coastal community of Santiago Guevea. The town of Guevea is depicted in the centre of a ring of boundary landmarks (Figure 5). Eighteen place signs with bilingual glosses added in Zapotec and Spanish encircle the glyph for Guevea. In the lower half of the lienzo we find the genealogy of several Zapotec rulers as well as a list of eight named individuals offering tribute to them (Marcus 1983a, 307).

If we assume that the 50 places depicted on carved stones at Monte Albán were conquered during the period 200BC - AD 100, one would expect to find some archaeological evidence of strong Zapotec influence



at those places. Such evidence does appear at the only three areas that have been investigated seriously, namely Miahuatlán, Tututepec, and Cuicatlán. Of these three, the most extensive work has been carried out by Redmond and Spencer in the Cuicatlán region. Their data (Spencer 1982; Redmond 1983) tend to support the proposition that the Cuicatlán area was subjugated by Monte Albán, and, for a time, became a frontier zone on the edge of the Zapotec state (Marcus 1976a). At the fortified site of Quiotepec, located at a natural pass through a mountain ridge separating Cuicatlán from the more northerly Tehuacán Valley, Redmond (1983) found abundant ceramics with strong stylistic affinities to those used at Monte Albán between 200 BC - AD 100. Some 7 km north of the pass, on the other hand, Redmond began recovering pottery typical of the Tehuacán Valley during this same time period. Therefore, it appears that in this case the hieroglyphic inscriptions listing areas subjugated by Monte Albán and the archaeological data on the limits of Zapotec ceramics are in agreement, both lines of evidence indicating that Cuicatlán stood near the northern limits of Zapotec expansion. Redmond and Spencer (1983) suggest that the Zapotec wanted to control the pass to Tehuacán, claiming for themselves a whole series of tropical products which could not be grown in the temperate climate of the area around Monte Albán. This suggestion is supported by a settlement shift from the high alluvium to nearby piedmont ridges, apparently for the purpose of enabling more land to be brought under cultivation (Redmond 1983), and by an increase in the carbonised remains of tropical fruits and nuts.

One additional discovery leads us to believe that the subjugation of Cuicatlán was not a peaceful event. In front of one building there, Spencer (1982) recovered 61 skulls, aligned in rows, which he interpreted as the remains of a toppled-over skullrack. This skullrack may have served as a symbol of Zapotec military power, for the purpose of dissuading rebellion and promoting compliance by the people of Cuicatlán.

Maya Territorial Boundaries

To establish the limits of Maya political territories during the period from AD 731-751, we can use the distribution of emblem glyphs or 'site names' (Berlin 1958). Stela A at Copán, which dates to AD 731, lists 4 major Maya cities -- Copán, Tikal, Calakmul (?), and Palenque -- in one clause, followed by another listing the four world directions: E, W, S and N. Preceding these clauses is one that could be interpreted as reading "four on high", or "divided into four quarters" (Marcus 1976b). It would seem that the Maya regarded these four cities as paramount centres, each administering a large region (Figure 6). Within each of these four regions, we can detect the presence of a multi-level hierarchy of administrative centres in which the lower-order centres mention the emblem glyphs of the centre to which they are subject (i.e., 4th-level centres mention 3rd-level centres; 3rd-level centres mention 2nd-level centres; and 2nd-level centres mention one of the four major cities mentioned above). The use of such textual data establishes a

series of polities for the period AD 731-751, which vary in size from 5,000 to 12,000 km² (Marcus 1973; 1983b).

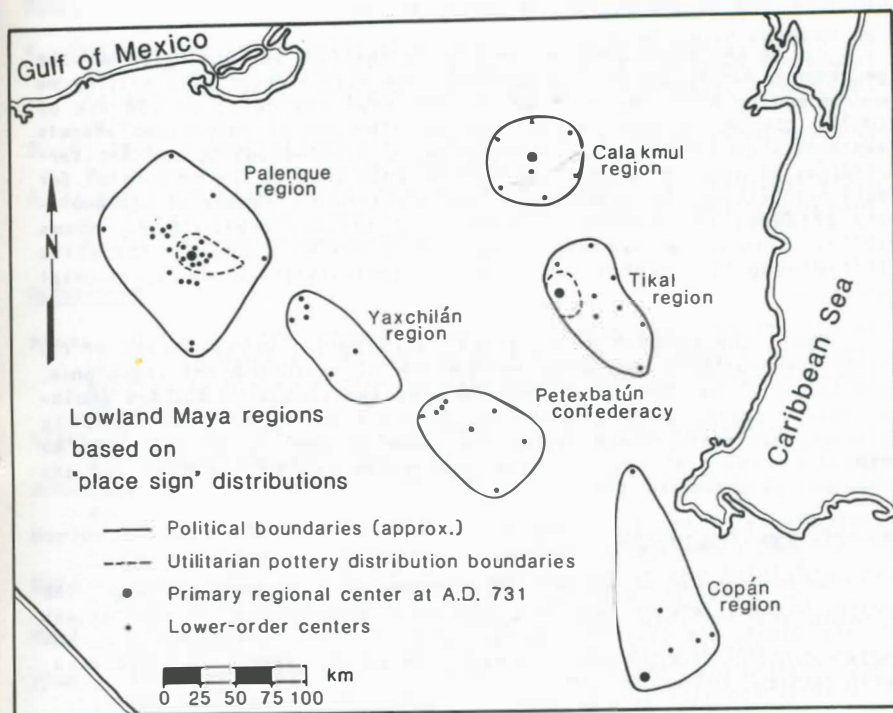


Figure 6: Maya political territories at AD 731, reconstructed from the distribution of monuments with 'site names' (redrawn from Marcus 1983b, Figure 8).

If we turn to the archaeological data for these areas, we can construct additional boundaries, based on the distribution of utilitarian pottery. Thin sections of sherds from sites in the region of Palenque reveal that many of the utilitarian jars and bowls were made within a 15-20 km radius of Palenque itself (Rands 1967). For Tikal, the serving dishes and bowls were made at sites within 8-10 km of that major city. These patterns suggest:

1. that the lower-order centres produced much of the utilitarian pottery consumed at major centres;
2. there was some community specialisation by vessel shape.

However, when we reconstruct regional units on the basis of the distribution of different types of utilitarian pottery, such units turn out to be much smaller than those established by using emblem glyphs or 'site names'; obviously, many such ceramic production regions could fit within the territory of one of the four major cities.

If, on the other hand, we were to reconstruct regions based on the geographic distribution of polychrome vase with hieroglyphic writing we would end up with regions much larger than any based on the use of emblem glyphs. In other words, the distribution of polychrome vessels represents an interregional circulation of elite goods beyond the territories of even the largest centres. We know some of the mechanisms for this circulation; for example, it took place when a member of the nobility attended the funeral of a noble in another region (e.g., Adams 1977). Such burial vessels serve as tangible evidence of the elite gift-giving that linked nobles across administrative and territorial units.

Thus, the boundaries we generate using the distribution of (1) utilitarian pottery and (2) polychrome burial vases are not isomorphic; additionally, neither is coextensive with the limits of (3) the administrative realm, as determined by the distribution of 'site names' in hieroglyphic texts. Complicating the issue further is the fact that we cannot assume that any of these boundaries stayed the same for any substantial period of time.

Summary and Conclusions

We have looked at the problem of territorial boundaries among the Aztec, Mixtec, Zapotec, and Maya peoples of Mesoamerica. To what extent do the boundaries deduced from hieroglyphic texts correspond to boundaries deduced from archaeological studies of settlement patterns, architecture, and ceramics?

We have seen that in the Maya case, distributional study of utilitarian ceramics would yield territories much smaller than those deduced from place-name glyphs, while distribution of polychrome burial vessels would yield territories much larger than those derived from glyphs. In the case of the Zapotec conquest of Cuicatlán, on the other hand, we saw that ceramic style boundaries do seem to conform to the boundaries deduced from carved monuments of conquered places, and that settlement pattern survey recovered at least one fort on the presumed territorial border. The example of the coastal Mixtec warned us that boundaries are not static: a place such as Jicayán can be incorporated into a larger polity at one time, achieve its own smaller realm at a later period, and see its territory shrink still further following the Spanish Conquest. Finally, in the Aztec case, we saw that the Aztec-Tarascan frontier could be partially defined by combining a textual study of tribute lists and an archaeological survey for Aztec and Tarascan border forts. Even in this example however, we saw that some important archaeological sites were never mentioned by the Aztec because they did not pay tribute; in

addition, without ethnohistoric documents we would never have guessed that the 'buffer zone' between the Aztec and Tarascans was occupied by Otomanguan speakers, speaking a set of languages unrelated to Tarascan and Nahuatl (the language of the Aztec). Boundaries are best understood when one can call on all three lines of evidence -- hieroglyphic, ethno-historic, and archaeological.

Notes

1. Codices are screenfolds of animal skin or bark paper covered on both sides with a coat of lime plaster; they are painted in several colours and often contain genealogical, historical, and ritual data.
2. Glosses or Annotations are written using the European alphabet to write words in the native languages.
3. Lienzos are often early Colonial 'maps' drawn in pre-Conquest style on large cotton sheets. These 'maps' constitute important historical-cartographic documents.

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