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The Study of North Mesoamerican Place-Signs

El estudio de los signos glíficos de lugares y fundaciones de poblaciones del México Antiguo es de suma importancia para la reconstrucción de la historia cultural, económica y militar del Norte de Mesoamérica. La correlación de estos signos en los monumentos esculpidos y en los manuscritos precolombinos y coloniales con los topónimos documentados en lenguas mesoamericanas se ve dificultada por varios problemas de distinta índole: las discrepancias semánticas entre topónimos de los mismos lugares en distintas lenguas; el carácter tonal de algunos idiomas autóctonos (no representado en fuentes coloniales); el papel del 'rebus' en la representación fónico-pictórica de los jeroglifos toponímicos; distorsiones múltiples e interpretaciones equivocadas entre las lenguas; el préstamo de topónimos a otra lengua con sus adaptaciones fónicas y nuevas etimologías populares; las discrepancias entre nombre y signo y, además, la variación y sustitución jeroglíficas. El autor analiza estos problemas en el ejemplo de la correlación de los topónimos entre las lenguas nahuatl y mixteco(s), refiriéndose a la lista toponímica en nahuatl y mixteco de Reyes (1593) así como a las representaciones jeroglíficas documentadas.

The Correlation of Names with Signs

The study of place-signs in manuscripts and on stone monuments is of the greatest importance to scholars engaged in the painstaking task of reconstructing the military, economic, and cultural history of Ancient Mexico. While the study of calendrics provides data for the reassembly of the vertical axis of time, toponymy systematically maps out the horizontal plane.

Considerable progress has been made in both fields by students of Maya civilization, where a wealth of inscriptions contrasts with an overwhelming dearth of such data elsewhere. The greatest advances in the non-Maya area have been



achieved by Mixtec specialists, who, although hampered by a lack of Spanish and Mixtec annotation to the codices and lienzos making up the core of their data, have succeeded nonetheless in piecing together the genealogies and many of the dynastic and territorial relationships, which, while mostly attested in the pictorial documents, are to a very limited extent delineated in accounts of the Colonial period. One of the most fruitful avenues of research has been the collecting of place-names in the modern Mixtec communities of Oaxaca and Guerrero, and their analysis and comparison with the glyphs depicted in the codices, lienzos, and maps of Prehispanic and Colonial date.

The sophistication of Maya and Mixtec experts in this endeavor stands in marked contrast to the level of development attained in the study of Aztec place-glyphs. Since the vast majority of attested Aztec hieroglyphs are identified, more or less adequately, in the accompanying glosses and commentaries of Colonial scribes, there has been little impetus to do much else than analyze the meaning of the Nahuatl terms. A good indication of the status of the art may be seen in the fact that of fifteen place-glyphs on a major monument of a well-known Aztec emperor, the so-called Tizoc Stone, which dates back no more than thirty-three years before the arrival of the Spaniards, only ten have been identified to the satisfaction of most scholars (Nicholson 1973: 5; but cf. Dibble 1971: 327).

The two most important documents for the study of Nahuatl place-glyphs are the conquest and tax sections of the *Codex Mendoza*, the latter of which is a virtual mirror image of the *Matrícula de Tributos* (Cooper Clark 1938; Ross 1978 (for the reproduction only); Castillo Farreras 1974). The listing of Aztec provinces in these documents is by no means complete, and the towns named are far fewer than what is known, from *relaciones* and annals, to have been paying tax (not tribute, as it is often erroneously called) to the imperial administration. Despite their brevity, this collection of several hundred signs provides a formidable array of data on how one Mesoamerican civilization translated place-names into hieroglyphs, and, moreover, is a valuable comparative tool in the study of Mixtec and Zapotec toponyms.

A number of years ago, a novel but, unfortunately, superficial and error-ridden attempt at decipherment of several place-signs on the conquest tablets of Mound J at Monte Alban was made by one scholar, using the *Mendoza* as her key (Marcus 1976; cf. Whittaker 1980, 1982). Nahuatl place names and their glyphs were compared with Zapotec and Mixtec names for the same places, and then with the tablet hieroglyphs. Aside from an attempt to match the Nahuatl place-signs with glyphs actually found at the concerned in the Valley of Oaxaca, this method is, if used skillfully, the one most likely to be productive.

The Problem of Comparisons

Discrepancies between Place-Names

The difficulties involved in such an undertaking are sizable, and have led to reluctance and even aversion on the part of Mixtec scholars towards utilizing Aztec data in any measure. The most obvious problem is the frequent discrepancy in meaning between the Aztec and Mixtec names of a town, which should be reflected in the glyphs corresponding to them. Occasionally, there is sufficient data to explain the disparate terms. A town may, for example, come to be designated by an epithet which is used interchangeably with the standard term, one which may eventually replace it or itself fall from use. When a foreign language adopts or adapts one of the two, or invents its own designation for the settlement, a new place-glyph may be created.

The Aztec capital, to cite but one example, is known in Nahuatl as Mexico Tenochtitlan, of which the second part of the name, meaning 'Near the Fruit of the Rock Cactus', is rendered into hieroglyphs (Fig. 1). The Mixtec name, on the other hand, is Nnuco'yo 'Town of Rushes', which, like its glyph (Fig. 2), has nothing whatsoever to do with rock cacti (Smith 1973: 72). We need not postulate an earlier Nahuatl name Tollan 'Near the Rushes' for the city, since the records indicate that, apart from the 16th-century Aztec designation, the only other name the city allegedly had was Cuauhmixtitlan 'Near the Clouds of the Eagle' (*Historia de los mexicanos por sus pinturas* 1965: 56), and that was only around the time of its foundation - and up to the death of the Aztec lord Tenoch, perhaps. None of the suggested etymologies for the name Mexico, the most convincing of which is 'in the centre of the moon (lake)' (Soustelle 1970: 1-2), comes any closer.

The explanation for the Mixtec term is two-fold. The Aztec capital is frequently described in poetry as in *toltzalan in acatzalan* 'among the rushes, among the reeds' (Whittaker 1978: 8-11), a literal characterization of its surroundings; and the designation *tollan* 'near the rushes', which carries a symbolic sense roughly interpretable as 'centre of civilization', would have been applied quite logically to this metropolis, just as it had been to Teotihuacan, Xicocotitlan (Tula) and Cholollan. The only reason we are able in this instance to explain the Mixtec term is that documentation pertaining to Aztec matters has survived in sufficient quantity, something that cannot be said for the Oaxacan cultures.



Fig. 1: Tenochtitlan

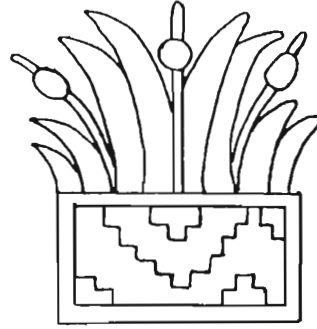


Fig. 2: Ñuuc'o'yo

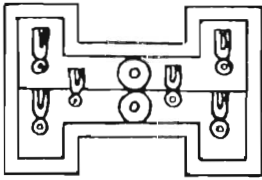


Fig. 3: Tlachquiauhco

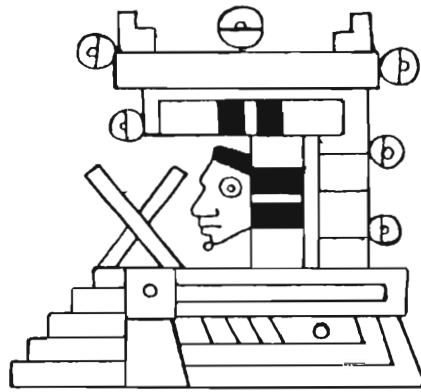


Fig. 4: Ndisinuu

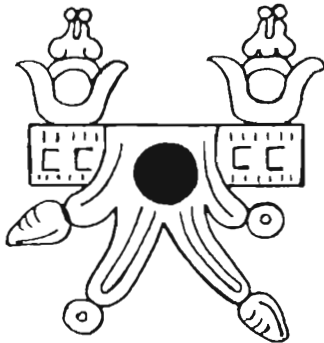


Fig. 5: Xochimilco Olac

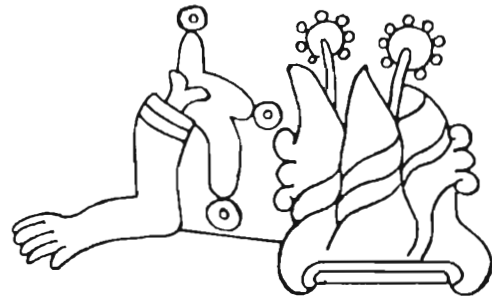


Fig. 6: Acolhuacan Tetzco

Tones

Another major problem lies in the fact that Mixtec and Zapotec are tonal languages, since the 16th-century dictionaries and documents in the Spanish alphabet fail to distinguish in an intelligible fashion all-important tones, without which a recorded place-name has a wide range of possible interpretations and, therefore, of glyphic renditions. As if this were not bad enough, the inhabitants of a given town may alter the tones, and thus the meaning, of the town's name, through a variety of factors - among them linguistic change, folk etymology, deliberate reinterpretation.

Often the differences between the dialects of neighbouring villages and towns are so slight that even disagreement in tones does not stand in the way of mutual intelligibility in conversation. Isolated words and names, however, lend themselves readily to misinterpretation, where no context is present to aid the listener in the conversion of tones and other features. In this manner, the tones of a single place-name used by two interacting speech-communities might conceivably become confused in the named locality itself. A case in point may be San Pedro Jicayan, whose Mixtec name *Ñuusiiqua'a* 'Town Which Has Much to Say' is matched by a hieroglyph composed of a frieze decorated with speech scrolls. To the present inhabitants of this town, as Elizabeth Smith discovered, the name signifies only 'Town of the Red Grandfather', with different tones from those of the version above (Smith 1973: 71).

The Rebus

A complicating factor is, of course, the role played by rebus in the hieroglyphic system. As in the Aztec script, rebus is of no little significance in the indication of approximate phonetic values of a composite glyph. The difficulty lies principally in determining whether an element represents precisely what it depicts or rather a word or syllable of similar sound. All too often an etymology of a place-name is given which merely reflects the elements a scholar sees in the corresponding glyph, no matter how implausible a literal reading might be.

Even the most thorough study of the hieroglyphics of the *Codex Mendoza* to date (Nowotny 1959: 97-113) failed to take issue with the standard etymology of Tlaxiaco, the hieroglyph of which consists of a ballcourt (*tlach-*) infixed by rain (*quiauh-*) and read in all primary Aztec sources *Tlachqui(y)auhco*, lit. 'In the Rain of the Ballcourt' (Fig. 3). This town in the Mixteca Alta bears the Mixtec name (N)disinuu, which Smith translates as 'Clearly Seen', lit. 'Visible Eyes', arguing from the existence in the Codex Bodley of a place-sign (Fig. 4) composed of crossed sticks and eye and presumably depicting an observatory (Smith 1973: 59-60).

Maarten Jansen, the noted Dutch archaeologist, makes the astute observation that the Aztec name, spelled *Tlachiaco* on the Reyes list of Mixtec toponyms (see below), would be parallel to the Mixtec if derived from the Nahuatl verb *tlachia* 'to observe' (personal communication). This could only be possible if the Nahuatl were *Tlachialoyan*, not *Tlachiaco*, but it strikes me as quite conceivable that the original translation into Nahuatl was made by a local interpreter with a rather shoddy command of the imperial language, and that this version was then misunderstood, altered arbitrarily and rendered into glyphs in the Aztec heartland. This would explain why the local Oaxacan spelling, *Tlachiaco*, has barely changed since the 16th century, betraying no sign of a variant closer to the form *Tlachquiahco*. This is by no means the only poor or substandard Nahuatl composition attested in the Oaxacan area, but it serves admirably to illustrate a complicating factor in the work of the investigator.

Distortions and misreadings

One example of such a corruption, where as yet no glyph is known for the Mixtec or Aztec name, comes also from the Mixteca Alta. The town of Yutañani 'River of the Brother' is known in its Nahuatl version as *Chachuapa*, interpreted as a corruption of *Chalchihapan* 'On the Waters of Jade' (Bradomin 1955: 120-121). The name lends itself, however, to a somewhat different and more complex explanation. It seems to me highly probable that a Nahuatl translation of the Mixtec, 'On the Waters of the (Elder) Brother', existed, and that it was this which was corrupted, first to *Achuapa*, and then under folk etymology to its present elaborated form. A search, therefore, for a glyph with water and jade elements might prove a little fruitless.

Partial reading and misreading of hieroglyphs by scribes are also a hazard to the student of comparative toponymy. On page 20 of the Mendoza (scribe's pagination) a place-sign with the gloss *Olac* is only partly identified. The glyph is composed of two flowers (*xochi-*) above a band of earth (*tlal-* 'earth' or *mil-* 'field') from the middle of which descends a ball of rubber (*ol-*) in water (*-a*) (Fig. 5). The important part which failed to be identified in the gloss is Xochimilco, of which *Olac* is just one barrio. Similarly, of two glyphs linked on page 3 which read *Acolhuacan Tetzco*, only the second has been glossed (Fig. 6).

A further example of partial reading has led to some confusion in the interpretation of page 8 of the Mendoza. Listed under the conquests of Motecuhzoma Ilhuicamina, a sign glossed *Atotonilco* appears twice on the same page, leading one writer to believe that a single Atotonilco had put up such a fierce resistance that its conquest was recorded a second time for the same reign (Ross 1978: 25)! The first (Fig. 7) has been identified by Barlow as Atotonilco de Pedraza (1949: 38) and by Kelly and Palerm as Atotonilco Tula (1952: 293), although they refer to one and the same town in Hidalgo. The glyph of the second (Fig. 8), the present Atotonilco el Grande, also in Hidalgo, is depicted considerably larger than

that of its namesake and clearly was meant to be read *Hueiatotonilco* 'Great Atotonilco', an observation supported by its Spanish designation.

Fully incorrect readings may be found on page 1 of the Mendoza, where the glosses identifying two individuals, Acacitli and Ocelopan, have been accidentally switched around. This minor slip, however, is of little consequence compared to the misreading on page 14, where a place-sign consisting of a bowl of seeds resting on the lower half of a woman is glossed *Nantzintlan* (Fig. 9). The scribe evidently did not know what to make of the bowl and so ignored it, choosing instead to read the second half of the glyph twice - as *nan-* 'mother' and as *tzin-* 'lower half of the body', although *nantli* does not occur in Classical Nahuatl without a possessive pronoun prefixed to it. The bowl of seeds is actually to be read *chi-*, the name of the seeds in question (cf. the sign for Teochiapán, Fig. 10), and the female element *nan-*, despite the fact that the usual glyph for *nantli* is the head or whole body of a woman, and not her nether regions. Although no such place as Nantzintlan is mentioned in any other Aztec source, Chinantla 'Where There are Fenced Gardens (*chinamitl*)' is indeed listed, appropriately as a conquest of Ahuitzotl, in a number of chronicles.

The Borrowing of Place-Names

It is by no means uncommon for names of people and places to be borrowed lock, stock, and barrel into other languages, where they undergo phonetic assimilation and, not too infrequently, folk-etymological alteration. An extreme Old World example of the latter would be Elephant and Castle, a location in London named after a Spanish princess bearing the title *La Infanta de Castilla*! The conquistador Bernal Díaz del Castillo referred to Huitzilopochtli, the patron deity of the Aztecs, as *Huichi-lobos* 'Huichi-wolves'. The picturesque *Cuauhnhuac* 'Near the Woods' evolved in the active imagination of the invaders into *Cuernavaca* 'Cow's Horn'.

A marked characteristic of the Mixtec and Zapotec place-names, on the other hand, is their overall homogeneity. Instances of loan-translation are quite high, but examples of phonetic correspondence between two languages' designations for a single place are few and far between. It would seem that the Gulf Coast alone possesses an array of Nahuatl names of palpably foreign origin, such as Tamuoc, Tampatel, and Tamapachco in the Huasteca.

I believe I have found a Totonac place-sign which was borrowed into the Aztec writing system along with part of its phonetic value - the glyph for the as yet unlocated Oxichan in the province of Cuetlaxtlan. In the Mendoza two place-signs, for Cuauhtinchan (Fig. 11) and Oxichan (Fig. 12), contain the element *chan-* 'home', depicted as a house in profile and distinguished from the reading *cal* 'house' by the full central superimposition of the modifying element. *Oxichan* means "Home of the *Ox-* (?)", a creature identical in glyphic representation to the Aztec *cipactli*, a crocodilian of natural and supernatural proportions. Among the

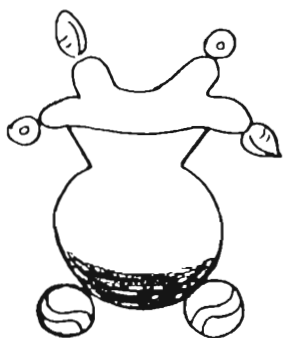


Fig. 7: Atotonilco

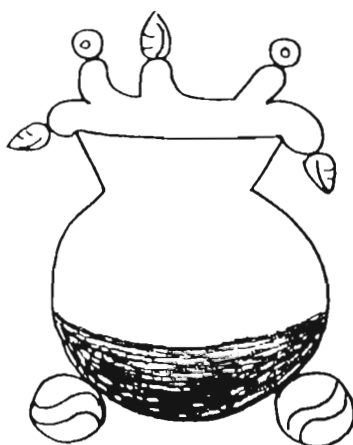


Fig. 8: Hueiatotonilco



Fig. 9: Nantzintlan

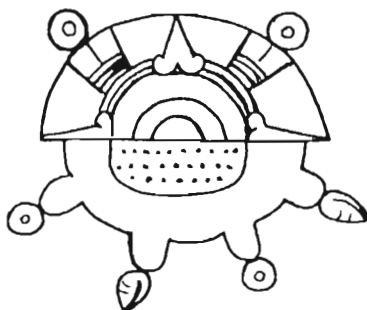


Fig. 10: Teochiapan

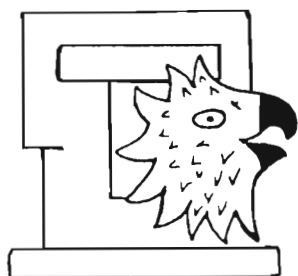


Fig. 11: Cuauhtinchan

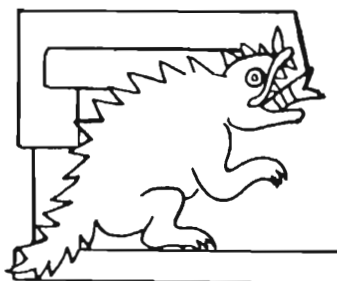


Fig. 12: Oxichan

Totonacs such a creature is known by the term *uxpi* (see Campbell and Kaufman 1976: 86), which I suspect was part of the original Totonac name for Oxichan. Probably related is the second element in the Maya day-name Imox, equivalent to Aztec Cipactli.

On the list of Mixtec and Nahuatl place-name equivalencies compiled by Antonio de los Reyes in his 1593 *Arte en lengua mixteca*, the only Mixtec place-name which betrays its derivation from another language is Nuutecucu, designating the town of Tetzoco. Even this name is not merely a phonetic borrowing from the Nahuatl, as it might at first seem. It may be translated from the Mixtec as 'Town of the Turtle-Dove', the Aztec name having gone through the process of folk etymology owing to its close resemblance to an existing Mixtec word. Despite Smith's contention (in reference to a different place-name) that *cucu* is a loan from the Spanish *kukukurukuku* (1973: 198), this onomatopoeic term for 'turtle-dove' is probably, as the Nahuatl *cocotli* and Zapotec *cògo* surely are, thoroughly indigenous, and no more a borrowing than the Chinese miao 'miaou' is from the English.

This process of borrowing and then phonetically altering a place-name to a meaningful native form can also be demonstrated for the Zapotec area. The town of Huitzo, guarding the northern approaches to the Valley of Oaxaca, is known as Huiyazoo 'The High Sentinel' in Zapotec, and as Cuauhxilotitlan 'Near the Cuajilotes' in the Codex Mendoza. At first glance not the faintest trace of a relationship, phonetic or semantic, is evident between the two, but an examination of variant forms of the Nahuatl names permits the reconstruction of the naming process which connects them. Although the *relación* of the town agrees with the Mendoza in recording the name as Guaxilotitlan, the variants Guaxolotitlan and Huexolotitlan occur far more frequently in the Colonial documents. Huexolotitlan means 'Where there are Turkey Cocks' and Guaxolotitlan possibly 'Where there are Wild Turkey Cocks', from Cuauhxlolotitlan (cf. *cuauhtotolin* 'wild turkey'). Supporting the existence of a Nahuatl *cuauhxlolotl* beside *huexolotl* (generically 'turkey cock', but also specifically 'domesticated turkey cock') are the Spanish loan word *guajolote* ('turkey' in general) and the 16th-century *relación* cited by Barlow (1949: 120 n.), in which the present town of Huajolotitpac, located in the hills above Huitzo, is called Quauxolotitpac 'Above Cuauhxlolotitlan' (or 'Above the Wild Turkey Cocks').

The name Huiyazoo was, according to my interpretation of the evidence, taken over by the Aztec conquerors of Oaxaca and altered first to the similar-sounding Huexolotitlan, which was then used interchangeably with its semantic twin Cuauhxlolotitlan. This in turn was adapted, by the mere change of a vowel, to Cuauhxilotitlan, which passed into the official records of the Aztec Empire with a meaning utterly different from those of each of its predecessors. Since all of the forms are actually attested, little is risked in this hypothesis of evolution. If we had no knowledge of the Zapotec name for Huitzo, and only a hieroglyph on stone or deerskin, the obstacles involved in plausibly linking its Zapotec and Aztec placesigns would be quite considerable. Unfortunately, in so very many cases we do not have any idea whatsoever of the original Zapotec designations

for towns, and even when we do there is often no little uncertainty as to meaning.

Discrepancies Between Name and Sign

That a place-name may have undergone alteration or replacement is but one half of the problem facing the Mesoamericanist, since the corresponding hieroglyph need not have been subjected to the same review. A place-sign may, therefore, be of greater antiquity or have changed to a lesser degree than the recorded name of the place it represents, a conservatism which can seriously affect the probability of decipherment.

The twin cities of the Aztec capital provide examples on this conservatism. At its foundation the northern settlement bore the name Xaltelolco 'The Sandy Embankment' (Chimalpahin 1963, I: 71; Torquemada 1969, I: 295), but after the area was consolidated with earth and stone it took on the new and simpler form of Tla(l)telolco 'The (Earthen) Embankment', by which it is known in almost all records. The glyph in the Mendoza (Fig. 13) which is labelled *Tlatilulco*, and which appears twice among the conquests of Itzcoatl and Axayacatl, is composed of an embankment ((*tla*)*telol*-; see Lameiras 1974: 23 n.) studded with dots and depicting chalk (*tiza*-), salt (*izta*-) or sand (*xal*-) when against a white background. The embankment is, however, grey, which, when alternating with brown, is the colour of stone (*te*-) and earth (*tlal*-). Since earth is distinguished by a repeating bracket element which is lacking here, and stone by equally absent medial waves and peripheral nubs, it would seem that the glyph, originally meant to be read Xaltelolco, has been updated by the addition of grey as an indicator of solid ground. In the *Matrícula de Tributos* a compromise has been achieved by alternating bands of dots and brackets, thus allowing both readings. On the Tizoc Stone, by way of contrast, where brackets alone are depicted (Fig. 14), the reading Tla(l)telolco is quite unquestionable.

According to the *Historia de los mexicanos por sus pinturas* (1965: 56), the original name given to the southern settlement of the Aztec capital was Cuauh-mixtitlan, which, if taken as such, would mean 'Near the Cloud(s) of the Eagle'. In my judgement, however, the transcription is corrupt, and, like the Spanish misspelling *Temixtitlan* for *Tenochtitlan*, it should actually have read Cuauhnochtitlan 'Near the Cactus Fruit of the Eagle', a reference to an event that took place almost half a century before the foundation of the town.

In 1281 the Aztecs captured and sacrificed their archenemy Copil on the nearby island of Tepetzinco. Tenoch, one of the Aztec leaders, was instructed to bury Copil's heart among the rushes and the reeds, in the centre of what was later to become their capital. This having been done, Huitzilopochtli let it be known that Tenoch would return there to find an eagle eating a serpent upon a rock cactus which had blossomed from the heart of Copil (Chimalpahin 1963, I:

44). Significantly, the Aztec term for the heart of a person sacrificed to Huitzilopochtli is *cuahnochtli* 'cactus fruit of the eagle'.

On page 1 of the Codex Mendoza can be seen the layout of the Aztec settlement at its foundation in 1325, in the centre of which is the hieroglyph naming the town. This consists of an eagle (*cuauh-*) about to grasp the fruit (*noch-*) of a rock cactus (Fig. 15), which symbolizes the seizure of the sacrificed heart of

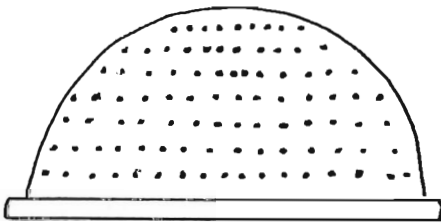


Fig. 13: Xaltelolco

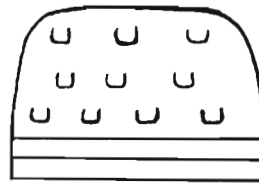


Fig. 14: Tla(l)telolco

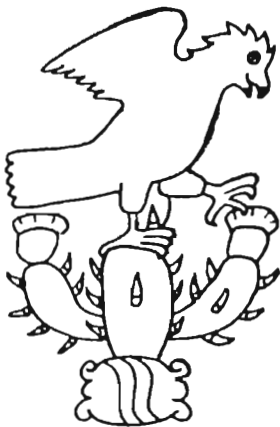


Fig. 15: Cuahnochtlan

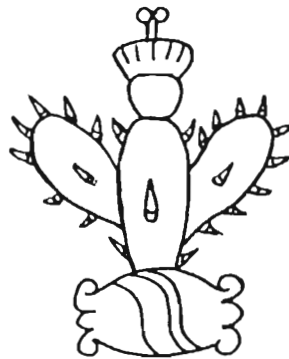


Fig. 16: Tenochtitlan

Copil by Huitzilopochtli in his manifestation as a solar eagle. It is this glyph which has become incorporated into the national flag of Mexico.

While glyphs for the capital around the time of its foundation clearly read *Cuauhnochtitlan*, those occurring in all later contexts (Fig. 16) read invariably *Tenochtitlan* 'Near the Fruit of the Rock Cactus', since they consist only of the elements stone (*te-*) and cactus fruit (*noch-*), or cactus (*nopal-*). The glosses, however, never distinguish between the two glyphs, presumably because the eagle of the earlier sign was taken to be merely iconographic. Since a glyph may contain more elements than are actually to be read, just as much as the reverse is true, the problem is no small one.

Hieroglyphic Variation and Substitution

WITHIN A SCRIPT

Glyphic variation in rendering a single place-name is an obstacle of lesser dimensions than the preceding, but is nonetheless important because of its frequent occurrence in manuscript and stone. The same document may render a place-name differently each time it appears, either by means of variants, which are composed of the same element(s) but diverge stylistically, or by means of alternates, which are partially or wholly composed of differing elements.

In the Codex Mendoza both kinds are to be found, as a comparison of its conquest and tax sections will quickly demonstrate. Xochimilco 'In the Field of Flowers', for example, is rendered by variants which differ only in the number of flower (*xochi-*) elements (Fig. 17, 18). Tochpan 'Over the Rabbits', on the other hand, has alternates differing in the element employed for the postposition *-pan*, one having a flag (*pan-*) on and the other a footprint above (*-pan*) the rabbit (Fig. 19, 20).

Two completely distinct glyphs for the place-name Mictlan 'Where the Dead Are' turn out to be not quite as clear-cut a set of alternates as the glosses would lead one to believe. The first consists of a speckled grey square framed in bones (Fig. 21), which is to be read *mic-* 'dead', but the second (Fig. 22), a mummy-bundle also read *mic-*, is complemented phonetically by a bean (*e-*) beside the head, which makes the reading Micquetlan imperative.

The matter is a little complicated since, even though Micquetlan is a mere variant of Mictlan, the two glyphs refer to separate locations, the first the Zapotec centre of Mitla in the valley of Tlacolula, and the second Miquetlan near Castillo de Teayo in Veracruz. The glyphic differentiation may be due in part to a scribal convention by which these towns may be easily distinguished, but this cannot be the sole factor since the Gulf Coast town itself has an alternate place-glyph in the Mendoza in the form of a prostrate naked corpse, which however is specifically glossed *Miquiyetlan* and *Miquetlan* among the conquests of Axayacatl and Tizocic. There are no grounds for considering the two Mictlans phoneti-

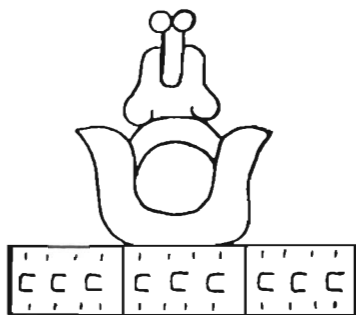


Fig. 17: Xochimilco

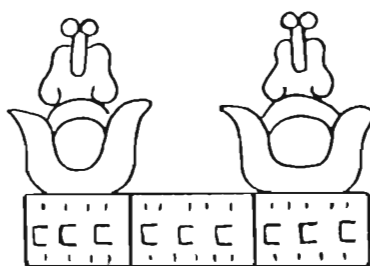


Fig. 18: Xochimilco Variant

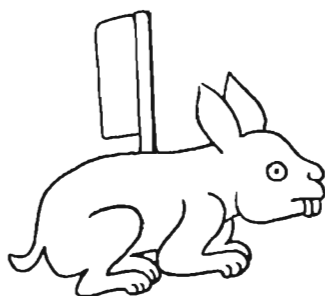


Fig. 19: Tochpan



Fig. 20: Tochpan Alternate

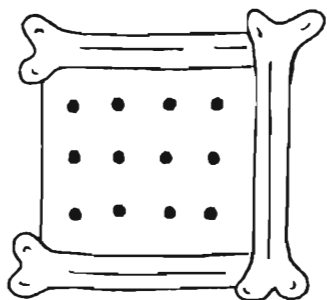


Fig. 21: Micltan

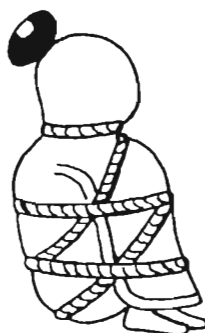


Fig. 22: Mic(que)tlan

cally separate, since the Zapotec town is also recorded in Colonial documents as Miquitla (Whitecotton 1977: 301 n.).

A third Mictlan is listed in the tax section of the Codex Mendoza, a town situated in the Mixteca Alta and known locally as Mitlatongo. The Mendoza place-sign is similar to that for Miquetlan in so far as it is a compound glyph, the primary element of which is a mummybundle (Fig. 23). The second element, however, is a death's-head and it is this which presents problems. Two possibilities emerge - either it is an unread semantic complement or a rebus phonetic. Neither is particularly compelling, but, since the Tetzcoacan historian Ixtlilxochitl, who compiled much of his data from hieroglyphic-iconographic manuscripts, refers to the town as Mictlantzinco (1965: II, 333) 'Little Mictlan', or 'Below Mictlan', it is conceivable that the death's-head serves a convenient double purpose of distinguishing the Mixtec Mictlan by means of a semantically-related element which carries a value (*tzon-*) similar to those of the Nahuatl diminutives *tzin-* and *ton-*, both of which are attested in variants of the town's name.

HIEROGLYPHIC VARIATION BETWEEN SCRIPTS

A non-Nahuatl explanation for the death's-head may eventually be possible if the Mixtec name for Mitlatongo, Dzandaya or Sandaya, perhaps 'The Foot of the Underworld', can be convincingly linked to either of the Mixtec signs known as Skull Frieze (Fig. 24) or Skull Hill (cf. Smith 1973: 78). In that case, the skull in the Aztec compound glyph would be a loan-sign from Mixtec, to which imperial scribes have added a mummy-bundle rendering the Nahuatl version of the name. Since the Spaniards are known to have taken over, adapted and embellished Prehispanic place-signs and insignia, it would not be surprising to find that cultures before them had done this also.

Cross-cultural glyphic ties notwithstanding, one should not expect Aztec place-glyphs to more than approximate their Mixtec equivalents, where place-names match in translation. This is partly for stylistic reasons and partly for reasons of phoneticism in the respective writing systems. The arrangement and rendition of elements in a glyph, and even their number, may vary considerably within a system, let alone between systems, but it is the frequent use of rebus phoneticism which plays the greatest havoc with attempts at equating place-glyphs in divergent scripts that render different languages.

Among the elements most frequently employed in Aztec and Mixtec place-signs are the compounds for 'plain' - *ixtlahua(can)* in Nahuatl, *yodzo* in Mixtec (Fig. 25, 26). The Aztec is composed of inverted eyes (*ix-*) over a segmented band containing brackets between dots or vertical strokes and designating 'land' or 'earth' (*tlal-*), 'field' (*mil-*), and 'chia seeds' (*chi-*).

Cooper Clark has argued that the inversion of the eyes signifies *ixtlapal* 'inverted' (Smith 1973: 41 n.), which, suggesting the first two syllables of *ixtlahua-*, selects for the reader the appropriate value of the earth sign. *Ixtlapal* is normally translated 'across, sideways' when used alone, but it refers more ex-

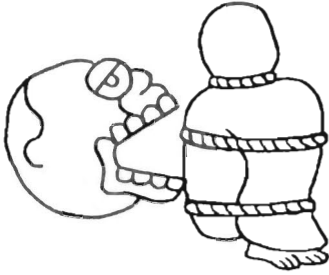


Fig. 23: Mictlan(tonco)

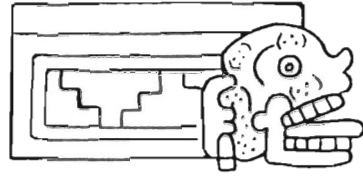


Fig. 24: Skull Frieze



Fig. 25: -ixtlahua(can)

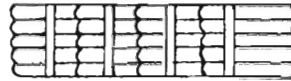


Fig. 26: Yodzo

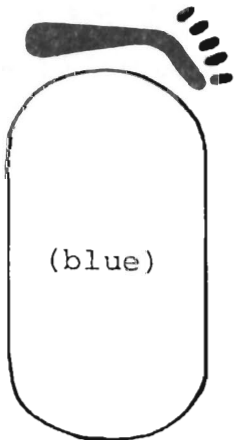


Fig. 27: Texopan

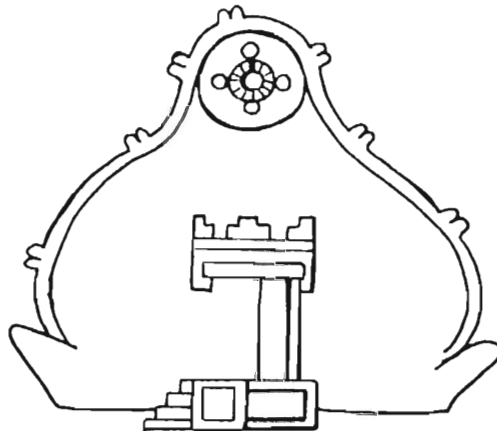


Fig. 28: Nūndaa

actly to reversal of position, as in the compound *ixtlapalmana* 'to place something upside-down, to turn something over'. Closely related in meaning is the verb *ixtlahuia* 'to turn something over to someone; to cross over in front of someone', from the stem *ixtlauh-* 'to reverse the position or status of something (esp. a debt.)'. It is this *ixtlauh-*, rather than *ixtlapal*, that I would offer as the reading of the reversed eyes, which would then be a perfect phonetic indicator for *ixtlahuia*(*can*).

The Mixtec element for 'plain, valley' is also composed of a band, but, unlike its Aztec counterpart, the band contains bundles of plumes (*yodzo*) which serve as phonetic indicators for *yodzo* 'plain'. It is possible that at some earlier point in the history of both scripts a long band with earth markings, perhaps akin to those in the Aztec earth sign, was employed without additional phonetic elements, but this would have been intolerably vague, considering the range of interpretations available, and is in any case unlikely from the point of view of the history of writing, in which rebus phoneticism is characteristically one of the first devices to be developed.

As with geographical elements, a single place-name may be rendered differently in the Mixtec and Aztec scripts even where the meaning of the name in both languages is virtually identical. A case in point is provided by the town of Texopan 'Over the Blue (Stone)' in the Mixteca Alta, whose Mixtec name, Ñuundaa, means 'Place of the Blue'. The Mixtec glyph in the 1579 *Relación Geográfica* of the town consists of a hill element at the top of which is an infixed turquoise jewel (Fig. 28). A temple at the base of the hill may or may not be an integral part of the glyph. One might expect the compound to be read *Yucuyusi* 'Hill of Turquoise', but according to Smith the only attested variants of the name of the town are Ñuundaa 'Place of the Blue' and Ñundaa 'Land of the Blue' (Smith 1973: 60).

The equivalent Aztec place-sign in the Mendoza is composed of a rounded rectangle coloured blue (*texo-*) and surmounted by a footprint (Fig. 27). This superfix is both a rebus phonetic with the value *pan(o)-* ('to pass over, cross over') and an iconic with the meaning 'over, on' (*pan-*). When a footprint (often more than one) occurs as a suffix in place-signs it is invariably read *-yocan*, deriving its phonetic value from the glyph for road (*o-*), a row of footprints within a band, and its iconic value from the position of a road at the base of a scene in nature. When occurring as a postfix and pointed downward the footprint carries the values 'to descend' (*temo-*) and 'to fall' (*huetz-*).

Analysis of the Reyes List

In order to ascertain the degree to which Aztec and native Oaxacan place-names correspond, and thus the degree to which the Mendoza might prove useful in the decipherment of non-Aztec hieroglyphs, it is necessary to compare a sizable body of toponymic data from a point as close to the Spanish Conquest as

possible. The only lengthy correlation of place-names that is known for the Oaxacan area and beyond is the list of 146 towns compiled and named in Nahuatl and Mixtec by Antonio de los Reyes and published without translation in his 1593 *Arte en lengua mixteca*. The list comprises forty towns from the Mixteca Alta, simply called the Mixteca by Reyes, thirty from the Mixteca Baja, ten from the Coast (also Mixtec), six from the Teutila region, thirteen Zapotec towns, and fortyseven 'Mexican' towns.

In the final section I have listed by number, in the order in which they occur in Reyes, all place-name correlations for which I could provide translations. Interpretations of Mixtec names by Jimenez Moreno (1962), Caso (1962), and Smith (1973) are followed by the notations (J), (C), and (S) respectively, while those unmarked, along with all translations from the Nahuatl, are my own. Where the Nahuatl is too corrupt for its original form to be recognizable, the latter has been entered in parentheses beside the Reyes version. The correlations are followed by a classification of their semantic relationship: E, equivalent; R, related, and U, unrelated.

Below are recorded the rough proportions of equivalent, related and unrelated toponyms for each area. Figures in parentheses are those which were obtained when uncertain members of each category were included in the total.

Region	Equiv.	Rel.	Unrel.	Size of Sample
Mixteca Alta	41 (44) %	27 (29) %	19 (24) %	41
Mixteca Baja	33 %	27 (30) %	13 (33) %	30
Coast	36 %	9 %	54 %	11
Teutila region	33 %	17 %	17 (33) %	6
Zapotec towns	50 %	28 %	21 %	14
Mexican towns	38 %	32 (34) %	22 (28) %	50
Overall	39 %	27 (29) %	22 (30) %	152

An analysis of the comparisons reveals some interesting statistics. More than one-third of all names of towns in the Mixteca appear to be unrelated to the names bestowed upon the same towns by the Aztecs. Although roughly the same percentage of names proved to be equivalent, it is only from this reduced number that glyphic correspondences which would be recognizable out of context could be anticipated. The proportions are not much different for the Teutila and 'Mexican' toponyms, despite the fact that in both these groups the Mixtec names are the foreign ones. While the proportion of equivalence for the Coast is on a par with the other Mixtec zones, over half the towns have completely unrelated Mixtec and Nahuatl names. It is only in the Zapotec area that the exact correspondences between Mixtec and Nahuatl names reach fifty percent.

Occasionally, toponyms may not appear to be semantically related, when in fact they are, or probably are. Quauhtla 'By the Tree (or Trees)' (no. 23) seems worlds apart from its Mixtec counterpart Dzandaya (or Sandaya) 'At the Foot of the Underworld'. A connection between the two is nonetheless suggested by the existence of the Gulf Coast place-name Mictlancuauhtla 'By the Tree of the Underworld', which must surely refer to the world tree marking the north direction, known as Mictlampa 'Towards the Underworld' in Aztec thought. I suspect, therefore, that the Nahuatl name for the Mixtec town of Dzandaya has been abbreviated from a second Mictlancuauhtla, all the more likely when one considers the fact that the name could have been interpreted as Mictlan Cuauhtla, a double name either half of which could have been used alone, after the fashion of such doublets as Mexico Tenochtitlan, Tollan Xicocotitlan, and so forth.

As I have discussed earlier, place-signs may not match even when toponyms do. A contributing factor to this is mistranslation of a native place-name by newcomers, several instances of which are to be found on the list in the Mexican section. Tepetlaoztoc 'At the Cave of the Tepetate' (107), for example, is translated into Mixtec as 'Place of the Crag of the Gorge (or Mat)', as if *tepetlatl*, a kind of stone, were to be taken literally as stone (*te-*) mat (*petla-*). The translation is doubly confusing because the order of the Mixtec elements is the reverse of what should be expected, and because Mixtec *yuvui* carries two meanings which vary according to tone - 'mat' and 'gorge', the latter seeming to fit the context well.

Yauhtepec 'At the Hill of the Yautle Plant' (129) is rendered into Mixtec as if the Nahuatl were Yaotepec 'At the Hill of the Enemy', a clear case of mistaken identity. More curious is the Mixtec translation of Teohuacan 'Place Possessing Gods' (139) as Yucutoñaña 'Hill of the Lord of Beasts', which seems to stem from the corruption of the Nahuatl into Tecoacan, a form wrongly presumed to be related to *tecuaní* 'maneater'.

The uncertainty that arises when one attempts to choose the correct translation of a place-name from the several alternatives at hand is mirrored in the Mixtec names for Ayotzinco (121). Yuhunduta 'Edge of the Water' and Yuuteyoo 'Stone of the Turtle' reflect the ambiguity of the Nahuatl *ayotl* which can mean 'wateriness' or 'turtle'. The two Mixtec versions are in any case free adaptations from the Nahuatl, as one can see from the additions of 'edge' and 'stone', which are lacking in the original.

Sometimes both Mixtec alternate names for a term might derive semantically from separate Nahuatl originals, although sufficient data to establish this is more lacking. In the case of Puebla (133), Reyes does not even list a Nahuatl term alongside the Mixtec Yutandeyoho 'River of the Hummingbird'. An Aztec name is, however, known for the town - Cuatlaxcoapan 'On the Waters of the Cuatlaxcoatl (a species of snake)'. For the Mixtec, which obviously does not match this, the expected Nahuatl equivalent would be Huitzilapan 'On the Waters of the Hummingbird', as Jimenez Moreno notes (1962: 90). It is precisely this name which is to be found in the works of Cortez' chronicler Gómara (1966: 395) designating, together with Cuatlaxcoapan, Puebla's springs of good and bad water respectively.

Zapotec Toponymy

Such chance tidbits on toponymical information from primary sources are few and far between in the literature pertaining to the Zapotec area. Francisco de Burgoa, a 17th century Dominican friar who spent his entire life in this region, provides etymologies for a limited number of place-names (Burgoa 1934), which, together with the data found in the various *relaciones geográficas* and *visitas* of the late 16th century (Paso y Troncoso 1905, IV), constitute practically all that can be gleaned from the Early Colonial Period. Last century, the indefatigable scholar Manuel Martínez Gracida collected and published a wealth of information on place-names throughout the State of Oaxaca (1883a; 1883b), which was criticized and supplemented in more recent times by José María Bradomín (1955). The work of these two scholars is of considerable use to modern researchers, despite the fact that their etymologies are not particularly exact. Those for Nahuatl toponyms are especially poor, which is a little surprising considering the high level of Aztec scholarship attained in Mexico during the last two centuries.

A thorough knowledge of the structure of Mixtec or Zapotec plus an ability to control Nahuatl is, in any case, absolutely indispensable for the specialist involved in place-glyph identification. It goes without saying that Nahuatl should not be the primary tool where a local language still provides data, but in a field where the sources at one's disposal are so few and so ambiguous (with regard to tone and quality of transcription), it would be the height of folly to disregard this *lingua franca*, a practice which is growing in Mixtec studies as a backlash to the overdependence on Nahuatl of earlier scholars.

Bibliography

Alva Ixtlilxochitl, Fernando de (1965):

Obras históricas de Don Fernando de Alva Ixtlilxochitl (edited by Alfredo Chavero). México.

Barlow, Robert H. (1949):

The Extent of the Empire of the Culhua Mexica. Berkeley/Los Angeles: University of California Press.

Barlow, Robert/Byron MacAfee (1949):

Diccionario de elementos fonéticos en escritura jeroglífica. México: UNAM.

Bradomín, José María (1955):

Toponimia de Oaxaca: Crítica etimológica. México.

Burgoa, Francisco de (1934):

Geográfica descripción. 2 vols., México.

- Campbell, Lyle/Terrence Kaufman (1976):
 "A Linguistic Look at the Olmecs." In *American Antiquity*, 41.1: 80-89, Washington (D.C.).
- Caso, Alfonso (1962):
 "Vocabulario sacado del 'Arte en lengua mixteca' de Fr. Antonio de los Reyes." In: Francisco de Alvarado: *Vocabulario en lengua mixteca* (1593) (edited by Wigberto Jiménez Moreno), 107-153, México.
- Castillo Farreras, Victor M. (Ed.) (1974):
 "Matrícula de tributos." In: Miguel León Portilla (Ed.): *Historia de México*, 2: 231-296, México.
- Chimalpahin Cuauhtlehuanitzin, Domingo de San Antón Muñón (1963):
Die Relationen Chimalpahin's zur Geschichte Mexico's (edited by Günter Zimmermann). 2 vols., Hamburg.
- Cooper Clark, James (Ed./transl.) (1938):
Codex Mendoza. London.
- Dibble, Charles E. (1971):
 "Writing in Central Mexico." In: Gordon F. Ekholm/Ignacio Bernal (Eds.): *Archaeology of Northern Mesoamerica, Part One; Handbook of Middle American Indians*, 10: 322-332, Austin: University of Texas Press.
- Gómara, Francisco López de (1966):
Cortés: The Life of the Conqueror by His Secretary (edited and translated by Lesley Bird Simpson). Berkeley/Los Angeles: University of California Press.
- Historia de los mexicanos por sus pinturas (1965):
 "Historia de los mexicanos por sus pinturas." In: Angel María Garibay Kintana (Ed.): *Teogonía e historia de los mexicanos - Tres opúsculos del siglo XVI*, 23-90, México.
- Ixtlilxochitl, Fernando de Alva (1965):
 vid.: Alva Ixtlilxochitl, Fernando de.
- Jiménez Moreno, Wigberto (1962):
 "Etimología de toponímicos mixtecos." In: Francisco de Alvarado: *Vocabulario en lengua mixteca* (1593), 87-98, México.
- Kelly, Isabel/Angel Palerm (1952):
The Tajin Totonac. Smithsonian Institution, Institute of Social Anthropology, Publication No. 13, Pt. I. Washington (D.C.).
- Lameiras, Brigitte B. de/Armando Pereyra (1974):
Terminología agrohidráulica prehispánica nahua. Instituto Nacional de Antropología e Historia, Colección Científica, 13. México.
- Marcus, Joyce (1976):
 "The Iconography of Militarism at Monte Alban and Neighboring Sites in the Valleys of Oaxaca." In: Henry B. Nicholson (Ed.): *Origins of Religious Art and Iconography in Pre-Classical Mesoamerica*, 123-139, Los Angeles.

- Martínez Gracida, Manuel (1883 a):
Colección de 'cuadros sinópticos' de los pueblos, haciendas y ranchos del Estado libre y soberano de Oaxaca. Oaxaca.
- Martínez Gracida, Manuel (1883 b):
Catálogo etimológico de los nombres de los pueblos, haciendas y ranchos del Estado de Oaxaca ... , Oaxaca.
- Nicholson, Henry B. (1973):
 "Phonetism in the Late Pre-Hispanic Central Mexican Writing System." In: Elizabeth P. Benson (Ed.): *Mesoamerican Writing Systems*, pp. 1-46, Washington (D.C.): Dumbarton Oaks.
- Nowotny, Karl Anton (1959):
 "Die Hieroglyphen des Codex Mendoza: Der Bau einer mittelamerikanischen Wortschrift." In *Amerikanistische Miscellen; Festband, Franz Termer ... gewidmet ...; Mitteilungen aus dem Museum für Völkerkunde in Hamburg*, 25: 97-113, Hamburg.
- Paso y Troncoso, Francisco (Ed.) (1905-1906):
Papeles de Nueva España, 2ª serie. 7 vols., Madrid.
- Reyes, Antonio de los (1888):
 "Arte en lengua mixteca" (1593). In *Actes de la Société Philologique*, 18: [1]-[12], I-VIII and 1-96, Paris (appeared in 1890).
- Ross, Kurt (Ed.) (1978):
Codex Mendoza. Stuttgart: Parkland.
- Smith, Mary Elizabeth (1973):
Picture Writing from Ancient Southern Mexico. Norman (Okl.).
- Soustelle, Jacques (1970):
Daily Life of the Aztecs on the Eve of the Spanish Conquest. Stanford (Cal.).
- Torquemada, Juan de (1969):
Monarquía indiana. 3 vols., México.
- Whitecotton, Joseph W. (1977):
The Zapotecs. Norman (Okl.).
- Whittaker, Gordon (1978):
 "An Aztec Ode to Mexico Tenochtitlan Atlitic." In: John B. Glass (Ed.): *The Lesser Writings of Domingo Chimalpahin, Part 5; Contributions to the Ethnohistory of Mexico*, Lincoln (Mass.): Conemex.
- Whittaker, Gordon (1980):
The Hieroglyphics of Monte Alban. Ph D dissertation, Yale University, New Haven 1980 (Diss. No. 8025319); Ann Arbor (Mich.): UMI.
- Whittaker, Gordon (1982):
 "The Tablets of Mound J at Monte Alban." In: Maarten E.R.G.N. Jansen, and Th. J. J. Leyenaar (Eds.): *Los indígenas de México en la época prehispánica y en la actualidad*, 50-86, Leiden: Rijksmuseum voor Volkenkunde.

Appendix

The Reyes List (adapted from Smith 1973:176-177)

	Nahuatl Name	Mixtec Name	Classification
MIXTECA ALTA			
1.	Yanguitlan 'By the New'	Yodzocahi 'Wide Plain' (S)	U
2.	Chachuapa (<Achcauhapan?) 'On the Waters of the Elder Brother?'	Yutañani 'River of the Brother' (C)	E?
3.	Cuyotepec 'At the Hill of the Coyote'	Yucuñaña 'Hill of the Coyote'	E
4.	Tliltepec 'At the Black Hill'	Yucutnoo 'Black Hill' (J)	E
5.	Tepuzculula 'By the Curved Axe'	Yucundaa 'Hill of the Maguey Fibre' (J)	U
6.	Tlachiaco 'At the Observing?' (pidgin Nahuatl)	Disinuu 'Clearly Seen' (S)	R
7.	Chichahuaztla 'By the Chichahuaztli Rattle'	Tnutnono 'Slope of the Horizon'? (S)	U?
8.	Cuiquila (Coyoc? cf. Cuilapa, No. 90) 'By the Coyotes?'	Ñuucuiñe 'Place of the Jaguar' (S)	U?
9.	Ocotepec 'At the Hill of the Ocote'	Yucuite 'Hill of the Ocote' (J)	E
10.	Cuixtlahuac (Coaixtlahuacan) 'On the Plain of the Serpent'	Yodzocoo 'Plain of the Serpent' (J)	E
11.	Tequitiztepec de Chuchones 'At the Hill of the Shell'	Yucuyee 'Hill of the Shell' (S)	E
12.	Ychcatlan 'By the Cotton'	Sidzaa 'Below the Birds'	U
13.	Achiutla 'By the Achiote Peppers'	Ñuundecu 'Place of Burning Things?'	R?
14.	Malinaltepec 'At the Hill of the Malinalli Plant'	Yucuañe 'Hill of the Malinalli Plant'	E
15.	Tlatlattepec 'At the Hill of Scorching Heat'	Yucuquesi 'Hill of Scorching Heat' (S)	E
16.	Atoyac 'At the River'	Teyta 'River of Zacate (or Flowers)'	R

17.	Tlatzultepec (<Tlazotepec) 'At the Precious Hill'	Yucucuihi 'Precious Hill' (J)	E
18.	Chalcatongo 'At the Little Rocky Hollow'	Ñuundaya 'Place of the Underworld'	U
19.	Amoltepec 'At the Hill of the Amole Soap'	Yucunama 'Hill of the Amole Soap'	E
20.	Yolotepec 'At the Hill of the Heart'	Yucuñeni 'Hill of the Flesh of the Heart'	E
21.	Atlalauca, S. Esteban 'Place of the Red Waters'	Ñuuquaha 'Red Place'(J)	R
22.	Apuala 'By the Count of Waters'	Yutatnoho 'River of Lineage' (C)	U
23.	Quautla 'By the Tree (s)'	Dzandaya (or Sandaya) 'At the foot of the Underworld'	U
24.	Chicahuaztepec 'At the Hill of the Chichahuaztli Rattle'	Yucucadza 'Hill of the ?'	?
25.	Nuchiztlan 'By the Cochineal'	Atoco 'At the Cochineal' (S)	E
26.	Quautlilla (Huauhtla) 'By the Amaranth Seeds'?	Yucundeq 'Hill of the Seeds' (J)	R
27.	Etlantongo 'In the Little Place of Beans (or Etlan)'	Yucunduchi 'Hill of Beans' (J)	R
28.	Xaltepec 'At the Hill of Sand'	Añute 'At the Sand'	R
29.	Tilantongo 'In the Little Place of Blackness (or Tiltlan)'	Ñuutnoo 'Black Place' (J)	R
30.	Mictlantongo 'In the Little Place of the Dead (or Mictlan)'	Dzandaya 'At the Foot of the Underworld'	R
31.	Patlaixtlahuac 'On the Broad Plain'	Yodzocono 'Broad Plain' (J)	E
32.	Texupa 'Over the Blue (Stone)'	Ñuundaa 'Place of the Blue' (J)	E
33.	Tzoyaltepec (Tzoyatepec) 'At the Hill of the Zoyate Palm'	Añuu 'At the Zoyate Palm'	R
34.	Tonaltepec 'At the Hill of Heat'	Yucundij 'Hill of Heat'	E
35.	Tamatzulapa 'On the Waters of the Toad'	Tequevui 'River of the Dragon'	U
36.	Tuctla 'By the Corn-Stalks' [iðem]	Yucuyaa 'Hill of Ashes (or of Speech)' Ñuuhuiyu 'Place of Corn-Stalks'	U E

37.	Teotzaqualco 'At the Divine Pyramid'	Chiyocanu 'Great Altar' (J)	R
38.	Tzentsontepec 'At the Hill of the Four Hundred'	Yucueetuvui 'Hill of the Four Hundred'	E
39.	Peñoles y Elotepec 'At the Hill of the Tender' Maize Ears'	Yucundedzi 'Hill of the Tender Maize Ears' (J)	E
40.	Mixtepec 'At the Hill of the Clouds'	Yodzonusuico 'Plain Before the Clouds' (J)	R

MIXTECA BAJA

41.	Tonala 'In the Heat of the Sun'	Ñuuniñe 'Place of Heat' (J)	E
42.	Atoyac 'At the River'	Yutacanu 'Great River' (J)	R
43.	Yhualtepec (Yohualtepec) 'At the Hill of Night'	Yucunicana 'Hill of the Brave Dead'?	U?
44.	Tlapanala 'By the Broken Pieces'	Ytmundahua 'Hillside of Boards'	U
45.	Tzilacayoapa 'On the Waters of the Chilacayote Gourds'	Ñuunduyu 'Place of the Chilacayote Gourds' (J)	R
46.	Tlapalcinco 'Below the Paint'	Yutandaha 'River of Varnish'	R
47.	Xustiahuac (Xihuhixtlahuacan) 'On the Plain of the Year'	Yodzocuiya 'Plain of the Year' (J)	E
48.	Tecomaxtlahuac 'On the Plain of Tecomate Cups'	Yodzoyaha 'Plain of Tecomate Cups'	E
49.	Tlacotepec 'At the Half-Hill'	Yucuquanuu 'Growing Hill'?	R?
50.	Ycpactepec (Icpatepec) 'At the Hill of the Yarn'	Yucunuuyuh 'Hill Before the Yarn'	E
51.	Tetzoatlan '?'	Nuusiya '?'	?
52.	Huaxuapa (Huexoapan?) 'On the Waters of the Willow'?	Ñuudzai 'Place of ?'	U?
53.	Chila 'By the Chile'	Toavui 'Domain of ?'	U?
54.	Yxitlan (Icxitlan) 'At the Foot'	Ñuusaha 'Place at the Foot' (J)	E
55.	Cuyotepec 'At the Hill of the Coyote'	Ñuuñaña 'Place of the Coyote'	E

56.	Miltepec 'At the Hill of the Field'	Daanduvua 'The Level Ground of the Valley'	R
57.	Camotlan 'By the Brown (or the Sweet Potatoes)'	Ñuundihi 'Purple Place' (J)	R
58.	Xuchitepetongo 'At the Little Hill of Flowers'	Ayuu 'At the Rocks'	U
59.	Goaxolotitlan 'By the Turkey Cocks'	Yuhuacuchi 'Walls of the Slope'	U
60.	Tequitiztepec del Rey 'At the Hill of the Shell'	Yucundaayee 'Hill of the Erect Male'	R
61.	Chiyaçumba 'At the Top of the Chia (or Wetlands)'	Yodzoñuquende 'Plain of the Land of Chia'	R
62.	Guapanapa 'On the Waters of the Beams'	Tnuhuito (Itnuhuitu) 'Hillock of Beams'	R
63.	Çapotitlan 'By the Zapote Trees'	Chiyoyadza 'Platform of ?'	U?
64.	Acatepec 'At the Hill of Reeds'	Yucutnuyoo 'Hill of Reeds'	E
65.	Petjaltzingo (Petlatzinco) 'Below the Mats (or in Little Petlatlan)'	Ñuuyuvui 'Place of Mats' (J)	E
66.	Acatlan 'By the Reeds'	Yutatisaha 'Sterile River' (S)	U
67.	Piaztla 'By the Tubular Gourds'	Sabañuuquu 'At the foot of the Place of Incense-burners?'	U?
68.	Chiautla 'By the Chia Oil (or Wetlands)'	Ñuuquende 'Place of Chia'	E
69.	Tlapa 'On the Red Ochre'	Yutandáyu 'River of Mud' (J)	U
70.	Alcuçauca 'At the Yellow Waters'	Yutaquaa 'Yellow River' (J)	E

COAST

71.	Puctla 'By the Smoke' [idem]	Ñuucaa 'Place of Copper' (J) Ñuuñuma 'Place of Smoke' (J)	U E
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72.	Çacatepec 'At the Hill of Zacate Grass'	Yucusatuta 'Hill of 7 Water' (S)	U
73.	Amuscos (Amoxco) 'By the Water Flies'	Yodzotaca 'Plain of the Bird's Nest' (S)	U
74.	Amuscos Los segundos 'By the Water Flies'	Yodzocosa (Yodzocosayu) Plain of 1 Rabbit'	U
75.	Xicayan (Ixicayan) de P. Nieto 'Place of Pouring'	Ñuusijquaha 'Place with Much to Say' (S)	U
76.	Xicayan de Tovar 'Place of Pouring'	Nuudzavui 'Place of Rain'	R
77.	Ometepec 'At the Two Hills'	Yucuvui 'Two Hills' (J)	E
78.	Yhualapa (Yolapa) 'On the Waters of the Heart'	Yutañeni 'River of the Flesh of the Heart'	E
79.	Tututepec 'At the Hill of Birds'	Yucudzaa 'Hill of Birds' (J)	E
80.	Pinotecpa 'Foreign Palace'	Doyoyuhu 'Hidden Marsh'	U

TEUTILA REGION

81.	Cuicatlan 'By the Songs'	Yutayaq (Yutayaa?) 'River of Song'?	E
82.	Quiyotepec 'At the Hill of the Quiote Shoots'	Ahehe 'At the ?'	?
83.	Cuzcatlan 'By the Necklace'	Nuudzeque 'Place of the (Neck) jewels' (J)	E
84.	Huitzila 'By the Hummingbirds'	Ñuunabo 'Place in Between'	U?
85.	Tepeutzila (Tepehuitzillan) 'By the Mountain Hummingbirds'	Yucusanu 'Hill of the Crest'	U
86.	Chinantla 'By the Fenced Gardens'	Nama 'The Wall' (C)	R

ZAPOTEC TOWNS

87.	Guaxilotitlan 'By the Cuajilote Trees'	Ñuundodzo 'The Place Above'	U
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88.	Ela 'By the Beans'	Ñuunduchi 'Place of Beans' (J)	E
89.	Goaxacac (Huaxyacac) 'At the Tip of the Guaje Trees'	Nuunduvua 'Place of the Guajes' (J)	R
90.	Cuilapa (Coyolapan) 'On the Waters of the (Cua)- coyol Palms' [idem]	Yutacaha 'River of the Coyoles' (S) Sahayucu 'At the Foot of the Hill' (S)	E U
91.	Teozapotlan 'By the Divine Zapote Trees'	Tocuisi 'White Domain' (S)	U
92.	Tlalistaca 'On the White Land'	Ñucuisi 'White Land'	E
93.	Teticpac 'Above the Rocks'	Miniyuu 'Rocky Depression'	R
94.	Ocotlan (Octlan) 'By the Wine'	Ñundedzi 'Place of Wine'	E
95.	Nixapa 'On the Waters of the Ashes'	Yutanuyaa 'River Before the Ashes'	E
96.	Xalapa 'On the Sandy Waters'	Yutañute 'River of Sand' (J)	E
97.	Tecoantepec 'At the Hill of the Maneater'	Yutañaña 'River of the Wild Beast'(J)	R
98.	Çoçola 'By the Time-worn'	Tuhu 'Old' (J)	E
99.	Tamatzola 'By the Toads'	Yahua 'Frogs'	R

'MEXICAN' TOWNS

100.	Mexico 'In the Centre (of the Lake) of the Moon' [idem]	Ñucòyo 'Place of Rushes' (S) Tenuchtitlan (Nahuatl, not Mixtec) 'By the Fruit of the Rock Cactus'	U U
101.	Tlatelulco 'At the Embankment'	Ñuutnusacu 'Place of the Wooden Fence'	U
102.	Tezcuco 'At the Tetzcotle Plant'	Ñuutecucu 'Place of Turtle-doves'	U

103.	Cuyocan (Coyohuacan) 'Place Possessing Coyotes'	Ñuuyuuñaña 'Place of the Rock of the Coyote'	R
104.	Xuchimilco 'In the Field of Flowers'	Ñuunduhuita 'Place of the Valley of Flowers'	R
105.	Atzcaçuhalco 'At the Anthill'	Ñuudzocoyoco 'Place of the Anthill' (J)	E
106.	Atlacubaya (Atlacui- huayan) 'Place of the Drawing of Water'	Ñuunduvuanàno 'Place of the Great Gully'	U
107.	Tepetlaoztoc 'At the Cave of Tepetate'	Ñuutotoyuvui 'Place of the Crag of the Gorge (or Mat)'	U
108.	Ytztapalapa 'On the Waters of the Obsidian Sherds'	Ñuutechiyo 'Place of the Sherds' (S)	R
109.	Ytztapaluca 'Place of Obsidian Sherds'	Ñuutechiodzuchi 'Little Place of the Sherds' (S)	R
110.	Chimalhuacan Chalco 'Place of Shields, at the Rocky Hollow'	Ñuuyusa 'Place of Shields' (J)	E
111.	Chimalhuacan Atento 'Place of Shields, at the Water's Edge'	Ñuuyusadzuchi 'Little Place of Shields' (J)	R
112.	Coatepec 'At the Hill of the Serpent'	Ñuuyucucoo 'Place of the Hill of the Serpent'	E
113.	Tlacopa 'Over the Sticks'	Ñuundutayhua 'Place of the Water of ?'	U?
114.	Toluca 'Place of the Downturned Head'	Ñuuyodaye 'Place of the Downturned Head'	E
115.	Mechuacan 'Place Possessing Fish'	Ñuuteyaca 'Place of Fish' (J)	E
116.	Metztitlan 'By the Moon'	Ñuuyoo 'Place of the Moon' (J)	E
117.	Amaquemeca 'Place Possessing Paper Garments'	Ñuututu 'Place of Paper' (J)	R
118.	Tenango 'At the Walls'	Ñuuyuhua 'Place of Walls'	E
119.	Tlalmanalco 'At the Levelled Ground'	Ñuunicahatoñena 'Place of ?'	U?

120.	Mitzquique (Mizquic) 'At the Mezquite Tree'	Sahatnudayndzuchi 'At the Foot of the Little Capulin Tree' (S)	R
121.	Ayutzinco 'Below the Wateriness' Ayutzinco 'Below the Turtle'	Yuhunduta 'The Edge of the Water' (J) Yuuteyoo 'Stone of the Turtle' (J)	R R
122.	Tepupula (Tepepollan) 'By the Big Hill'	Huahiyucu 'House of the Hill'	R
123.	Tepapayeca ?	Ñuuyyondobo 'Place of Suffering?'	U?
124.	Tetcla 'By the Rocky Terrain'	Yutatnoo 'Black River'	U
125.	Tlatlapanala 'By the Smashings'	Ñuudzinitáhuī 'Place of the Smashed Head'	R
126.	Goayapa (Hueyapan) 'On the Great Waters'	Nononduta 'Great Waters'	E
127.	Ytzucan 'Place of Obsidian'	Dzitniyuchi 'Tip of Obsidian' (J)	R
128.	Tepuztlan 'By the Copper'	Ñuuca 'Place of Copper' (J)	E
129.	Yautepec 'At the Hill of the Yautle Plant'	Yucuyecu 'Hill of the Enemy'	U
130.	Coaxtepec 'At the Hill of the Guajes'	Ñuunduta 'Place of Water' (J)	U
131.	Coahunahuac 'Near the Trees'	Ñuunuuyutnu 'Place Before the Trees' (J)	E
132.	Cuitlahuac 'At the Excrement'	Ñuuyehui 'Place of Excrement' (J)	E
133.	La Puebla (Cuetlaxcoapan) 'On the Waters of the Cuetlaxcoatl' La Puebla (Huitzilapan) 'On the Waters of the Hummingbird'	Yutandeyoho 'River of the Hummingbird' (J) [idem] 'River of the Hummingbird' (J)	U E
134.	Chulula 'Place of Flight'	Ñundiyo 'Place of the Flight of Stairs' (J)	R?
135.	Tlaxcalla 'By the Tortillas'	Ñuudzita 'Place of Tortillas' (J)	E
136.	Goaxotzinco (Huexotzinco) 'Below the Willows'	Yutatnuñuu 'River of Willows' (J)	R
137.	Acapetlahuac (Acapetla- huacan) 'Place of Reed Mats'	Ñuuyuvuiyoo 'Place of Reed Mats'	E

138.	Tepeaca (Tepeyacac) 'At the Tip of the Hill'	Dziñeyucu Top of the Hill' (J)	E
139.	Tecoacan (Teohuacan) 'Place Possessing Gods'	Yucutoñaña 'Hill of the Lord of Beasts' (J)	R
140.	Tecamachalco 'At the Stone Jaw'	Yucutduyaca (Yucutnuyaca) 'Hill of the Stakes of Torture' (S)	U
141.	Acatzinco 'Below the Reeds'	Yucutnuyoo 'Hill of Reeds'	R
142.	Tlacotepec 'At the Half-hill'	Yucumañu 'Half-hill' (C)	E
143.	Totomehuacan 'Place Possessing Bird- arrows'	Ñuudzaa 'Place of Birds' (J)	R
144.	Tecali (Tecalco) 'At the Stone House'	Huahiyuu 'Stone House' (J)	E
145.	Tepexic 'At the Crag'	Cavua 'Crag'	E
146.	Guatinchan 'Home of the Eagles'	Huahiyaha 'House of the Eagles' (J)	E