Maya Writing: Linguistic Evidence for Eastern Mayan Influence

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From approximately 300 A.D. to 900 A.D. the civilization known as the Classic Maya recorded in carvings and paintings their history, myths, and scientific knowledge. Writing done on perishable materials has not been preserved, and even many stone carvings have not withstood time. It is reasonable to assume that the hieroglyphic texts we do have from the Classic Period offer a small and probably unrepresentative sample of the entire corpus of Maya writing. In addition, three, perhaps four, bark-paper codices date from the Postclassic (900 A.D.-1250 A.D.) and Proto-historic Periods (1250-1521 A.D.). Colonial sources report that many such books were destroyed by the Spanish.

Because of cultural similarities between the Classic Maya and Mayan speakers of the historic period, linguistic continuity has been assumed as well. As more is learned about the script, it becomes clear that the Classic texts do indeed record a language related to the thirty or so Mayan languages spoken in Mexico and Guatemala today. Several of these have been proposed as being more directly related to the language or languages of the Classic Maya than others. The Cholan and Yucatecan families have been the traditionally favored candidates (Thompson 1950: 160; 1977: 3), with more recent scholarship overwhelmingly preferring the Cholan (Kaufman 1976: 112, 117, Norman & Kaufman...
1979). In fact, the conference on phoneticism in Maya writing held at the State University of New York at Albany in 1979 seems to have been based on this premise.

Over the years, however, bits of information have been accumulating that hint at some kind of connection with the languages now spoken in the Guatemalan Highlands, particularly the Quichean family. Much of the information has been dismissed as flukes resulting from the imperfect knowledge we have of the genetic predecessors of the Yucatecan and Cholan families (Thompson 1950: 17; Justeson & Campbell 1979).

Recently a few scholars have begun to suspect more than a random relationship between the Classic Maya and the Eastern Mayan languages (Justeson 1978: 245-273 (rejected in Justeson & Campbell 1979); Dunning 1979: 183; James Fox, personal communication). In the following discussion I will demonstrate how internal evidence from the Classic Period texts suggests that certain signs were used by speakers of a language lexically and phonologically similar to Eastern Mayan, and that subsequently a more developed stage of the script was used to record a language or languages sharing phonological similarities with Yucatecan and Western Mayan.

Figure 1 shows the Mayan language family. Not all the relationships are shown in detail. Kaufman (1976: 107ff) gives the time depth for Greater Quichean (the Proto-Quichean of Campbell 1977) as 1400 B.C.-600 B.C. By 200 B.C. Greater Quichean split into Kekchi, Uspantec, Quichean Proper, and Pokom. At the time I propose for an early stage of Maya writing Quichean Proper would have been a single
Figure 1. Mayan Languages
language. Cholan begins to diversify around 600 A.D., and Yucatecan around 1000 A.D., well after hieroglyphic writing is established in the Lowlands.

A Mayan Sound Correspondence

Abraham Halpern in 1942 was the first to offer a historical reconstruction of Proto-Mayan. Since then Swadesh (1956), McQuown (1955, 1964), Olson (1964), Kaufman (1964, 1968, 1969), and Fox (1978) have proposed various sets of proto-sounds. With the exception of some of the earliest work, linguists have traditionally agreed that Proto-Mayan had three nasal phonemes: *m, *n, and *ŋ. Recently Fox and Justeson (1980: 209) have suggested *nw or *ŋw as more accurately describing the proto-sound represented by the so-called x/n correspondence. It is not, however, the proto-sound, but the reflexes of it as they existed at the time of the development of Maya writing which is important here. Therefore, while its actual features are the object of controversy, the symbol ŋ remains adequate for our purposes. Table 1 gives the reflexes in representative languages. *ŋ remains /ŋ/ in Greater Kanjobalan, becomes /n/ in Greater Tzeltalan and Yucatecan, and becomes /x/ in Proto-Quichéan. In some Kanjobalan languages *ŋ has become /n/. The sound change *ŋ→x occurred before the diversification of Eastern Mayan around 1400 B.C. (Kaufman 1976: 106). The date for *ŋ→n in Yucatecan is unknown, but for Greater Tzeltalan it occurred after the split with Greater Kanjobalan around 1000 B.C. (Kaufman 1976: 107). In all probability it antedates the Proto-Classic Period (1 A.D.-300 A.D.).
<table>
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<th>GLOSS</th>
<th>PROTO-MAYAN</th>
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<td>*kaʔn</td>
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Table 1. Reflexes of *ŋ

Evidence from Maya Writing

There is evidence that this sound correspondence is reflected in the glyphs. Two combinations occur very frequently in Maya writing: TS44:116 and TS61:23 (Figure 2, 1-6). T544, k'ìn in Yucatec and k'ìn in Chol, means 'sun, day.' Kelley credits Brasseur de Bourbourg with the identification (Kelley 1962: 6) which is now universally accepted. Fox and Justeson (1980: 212) assign the value ne or ni to T116. They quote Lounsbury as having independently assigned it the phonetic value -n.

The na reading for T23, originally proposed by Knorozov (1967: 79), now seems established beyond a doubt (for example, Lounsbury 1979). Kelley discusses TS61 and T23 together:

As originally defined by Seler (1902-1923), the glyph was recognized as 'sky' in a context where it had T23 affixed. This very puzzling affix is sometimes present and sometimes absent with no obvious change in context. TS61 had been read as caan 'sky' on the basis of its context and its association with the so-called planetary band (1976: 150). Again he writes of T23:

It is one of the few affixes which are sometimes present and sometimes absent without obvious changes either in grammatical structure or meaning....If Knorozov is correct, T23 may be present on such glyphs as caan 'sky' as a phonetic determinant. However, it appears so rarely in such contexts that this explanation does not seem likely (1976: 185).

The suggestion that the affix is a phonetic determinant, a
1. TS44 k'in 'day, sun'
2. T116 ni-, 3. TS16 kaan 'sky'
   -in
4. T23 na-, -an

5. TS44:116
6. T561:23

7. Woman from Piedras Negras Stela 3
8. T281:23 k'an 'yellow, ripe' Yaxchilan, Lintel 10, D2

Figure 2.
(Sources: 1-4, Thompson 1962; 5, Thompson 1950: Figure 26, 51 & 55; 6, Kelley 1976:148; Proskouriakoff 1961:17; 8, Graham & Von Euw 1977.)
suggestion which Kelley rejected, has also been proposed by Taak. In reference to the 'sky compound' as well as two other pairs of signs he writes, "Although it has not yet been determined why the above logographic signs require a VC determinative suffix, the most plausible explanation would be polyvalence of the CVC stem" (1977: 288). Justeson, commenting on the frequency of T544: 116 feels it, too, may simply be an extension of an otherwise functional practice of phonetic complementation (1978: 273). This explanation accounts for neither the extensiveness nor the uniqueness of such a non-functional use.

On the earliest stelae T544 occurs without the -n suffix. Justeson makes an intriguing suggestion: "The absence of the T116 complement could indicate that the language being written on the Baktun 8 monuments was not Lowland" (1978: 273). That is, perhaps T544 was read as q'ix rather than k'ín. This negative evidence from the earliest inscriptions is rather weak since examples are limited. However, examples from Classic texts of T544 and T561 being followed by an -n suffix are extensive. Following Justeson then, a very satisfactory explanation would be that prior to use by Yucatecans or Cholans, the signs meant q'ix 'day' and kaax 'sky' in Eastern Mayan. When the writing system was adopted by Lowland speakers, they often, but not always, indicated their pronunciation by the addition of a suffix containing n and the appropriate vowel.

The occurrence of an -n suffix also on signs for words which have reflexes of *n would prove that the suffix stands for /n/ and not simply for any reflex of *ŋ. For example, if T116 does stand for 'tail,' a Quichean speaker would read it xe, and a Yucatec speaker neh.
The TS44:116 and TS16:23 combinations might just as easily represent the words q'iix and ka'ax. However, the T23 affix occurs with portrait glyphs of women to indicate na 'woman' (from *na) and with the glyph for 'yellow,' k'an (from *q'an) so its use is not limited to words containing reflexes of *ŋ (Figure 2, 7-8).

Conclusion

Therefore, the Classic Maya script cannot have recorded an Eastern Mayan language. The sign that represents /n/ would also represent /x/. In the language or languages recorded in the glyphs *ŋ had merged with *n. The only extant language families in which this has taken place are Cholan, Tzeltalan, Yucatecan, and in some Kanjobalan languages. It would seem that the language spoken by the Classic Maya comes from one of these groups.6

In addition, the fact that phonetic complements were at some point needed to indicate /n/ in logographs that would not have had /n/ in Eastern Mayan, supports the hypothesis that certain signs used by the Classic Maya were previously used by Eastern Mayan speakers. The first writers of the Classic script knew the pronunciations of these signs in the Eastern Mayan language, and modified the signs with affixes so they could accurately record the sounds of their own language.

The 'Lowland' language identification of the Classic writing system has, of course, been accepted as a working hypothesis by glyphicists for many years. The evidence presented here gives added confirmation to the hypothesis that the Classic inscriptions do not record an Eastern Mayan language, but one related to Western Mayan or
Yucatecan.

Kaufman (1976: 117) identifies the Classic Maya of the Peten as Cholan speakers, and those of Yucatan as Yucatecan speakers. There are, however, more than two groups whose cultures were distinct enough to suggest the possibility of language differences. Northern Yucatan, the Peten, Usumacinta River sites, Palenque, Quirigua and Copan, and a late foreign presence at Seibal probably represent more than just two linguistic groups. At this time the language of the Classic Maya remains an open question. Given the geographical and temporal span, it is likely that more than one is involved. It is also possible that the language or languages recorded in the inscriptions is not everywhere that of the common people. Furthermore, the language of the Peten Maya, while certainly related to Yucatecan or Greater Tzeltalan, may have left no direct genetic descendents. Given the thoroughness of the collapse in the tenth century, it could have included the extinction of a language.

The identification and distribution of Mayan languages at the time of the Classic Period is not an unsolvable problem. Careful analysis of archaeological, linguistic, and glyphic data can provide important information for our understanding of Mayan linguistic history, and of historical linguistics in general.

Footnotes

1 The term Classic Maya in this paper refers only to the civilization using Long Count dates and a style of hieroglyphic writing shared throughout the Peten and surrounding areas. It does not include many
sites in the Northern Lowlands.

The dates given here are from Kaufman's "Archaeological and linguistic correlations in Mayaland and associate areas of Meso-America" (1976). One of five criteria on which the dates are based is glotto-chronological calculations. Campbell (1977: 63-65) argues effectively against the use of this method. So while Kaufman's sketch of Mayan prehistory is the most detailed to date, and was done by a scholar whose knowledge of Mayan languages is unsurpassed, it remains theory rather than fact, and the actual dating of particular events is probably its weakest point. I give his dates as being reasonable estimates when not contradicted by other evidence.

Occurs as a bound morpheme: 'base' c'Ac'rim; 'base de una casa' nacliim.

A 'T' followed by a number indicates a sign listed in Thompson's 1962 Catalog. A colon indicates that the following sign is beneath the first. A comma indicates the second sign is to the right. Most phonetic signs represent CV or VC syllables. Because of the CVC root structures in Mayan languages, the second consonant is often indicated by a phonetic syllable having the same vowel as the first sign. This is common practice among users of syllabic writing systems throughout the world.

Baktun 8 covers approximately the first 400 years of this millennium, that is, the Proto- and Early Classic Periods.

In other Kanjobalan languages such as Kanjobal and Tojolabal it becomes /n/. Any Kanjobalan language which had /ŋ/ during the Classic Period would group with
Eastern Mayan in having three distinct reflexes of Proto-Mayan nasals. Those not having /ŋ/ would group with Greater Tzeltalan and Yucatecan.

References

AULIE, H. WILBUR and EVELYN W. AULIE. 1978. Diccionario Ch'ol-
Espanol, Espanol-Ch'ol. Instituto Linguistico de Verano, Mexico,
D.F.

CAMPBELL, LYLE. 1977. Quichean Linguistic Prehistory. University of
California Press, Berkeley.

Monographs, Volume 12. Indiana University Publications,
Bloomington.

DUTTING, DIETER. 1979. Birth, inauguration and death in the inscrip-

FOX, JAMES A. 1978. Proto-Mayan Accent, Morpheme Structure Condi-
tions, and Velar Innovations. Ph.D. dissertation, Department of
Linguistics, University of Chicago.

FOX, JAMES A. and JOHN JUSTESON. 1980. Maya hieroglyphs as linguis-

GRAHAM, IAN and ERIC VON EUW. 1977. Corpus of Maya Hieroglyphic In-

HALPERN, ABRAHAM. 1942. A theory of Maya ts-sounds. Carnegie Insti-
tute of Washington, Notes on Middle American Archaeology and
Ethnology.

University of Texas Press, Austin.


---. 1979. Workshop at the conference on phoneticism in Maya hieroglyphic writing. SUNYA April 20, Albany.


LOUNSBURY, FLOYD. 1979. Notes on some substitution patterns in Maya
hieroglyphic writing. Paper delivered at the conference on phoneticism in Maya hieroglyphic writing. SUNYA April 20-22, Albany.


---, and DONNAN CALL JEFFERS, eds. 1979. Tercera Mesa Redonda de Palenque Volume IV. Pre-Columbian Art Research Center, Palenque, Chiapas, Mexico.


---. 1977. A proposal for constituting a Maya subgroup, cultural and
linguistic, in the Peten and adjacent regions. In Jones 1977: 3-42.

STUDIES IN MESOAMERICAN LINGUISTICS

Report #4
Survey of California and Other Indian Languages
Reports from the Survey
of California and Other Indian Languages

Edited by Alice Schlichter, Wallace L. Chafe, and Leanne Hinton

Report #4

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cover design (Santa Barbara Chumash rock painting) by Leanne Hinton
Contents

Jon P. Dayley

Voice and Ergativity in Mayan Languages  .........................  5

Thomas W. Larsen

Aguacatec Syntax from a Functional Perspective  ................. 120

Martha J. Macri

Maya Writing: Linguistic Evidence for Eastern Mayan Influence  ........................................ 220

Claudia Brugman

The Use of Body-Part Terms as Locatives in Chalcatongo Mixtec  ........................................ 235

Martha J. Macri

Two Noun Class Systems in Mixtec  ................................. 291

Nicholas Paracias

Preliminaries to Tonemic and Tonomechanical Analysis for the Chalcatongo Dialect of Mixtec  ................. 307