

Differential Mixean and Zoquean Interaction with the Greater Lowland Mayan Languages and the Late Preclassic Origins of Classic Mayan Scribal Practices

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Introduction

The scholarship on linguistic contact in Mesoamerica contains numerous references to the special role of the Mixe-Zoquean languages in the process of cultural integration of the region, a process reflected in the convergence of linguistic traits that has led to the definition of the “Meso-American Linguistic Area” (Campbell et al. 1986). This integration, enacted and mediated largely through language, led to the formation of a Mesoamerican identity, distinct from those of culture areas immediately to the north and south. While still poorly understood in many of its details, this integration process involved exchange along multiple, largely overlapping networks of interaction: political, economic, religious, and social, each of them initially established, and often maintained by means of the institutions of trade and intermarriage alliances, and occasionally by outright military domination—all of them strategies that bring languages into close contact. None of these networks can be understood in isolation from language, and their associated vocabularies have been brought to bear by historical linguists, to understand the history of such networks (Kaufman 1976; Campbell and Kaufman 1976; Justeson et al. 1985; Campbell et al. 1986). Recent work on the analysis of maternal and paternal genetic flow has demonstrated the prevalence of connections between the Maya lowlands and Central Mexican highlands, as well as between the Guatemalan highlands and the Pacific Coast plains of the Soconusco and Mazatán regions (Aubry 2009). We should expect to find linguistic evidence that reflect these patterns of close interaction. In fact, problem at hand pertains to the last of these: interactions between the Guatemalan highlands and the coastal plains of Soconusco and Mazatán. However, a major gap hinders progress: no study has undertaken a comparison of ancient genetic history with the genetic markers of contemporary indigenous populations that inhabit the regions adjacent to the major ancient cities of these respective regions. Thus, it is still not possible to know with certainty whether Kaminaljuyu was really (or only) Mayan, as statements like the following implicitly assume (Aubrey 2009:45):

However, [the interpretations of] the nature of the interaction between Teotihuacan and Kaminaljuyu has varied widely from political domination to mutually beneficial interaction. Braswell (2003) and Demarest and Foias (1993) typify the more recent interpretations, which view Maya sites, in this case Kaminaljuyu, as playing a more active role in this interaction as discussed above.

The unquestioned assumption is that Kaminaljuyu was Mayan—or more to the point, *only* Mayan. Art historical evidence for a multicultural, perhaps multiethnic make-up of Kaminaljuyu's inhabitants is very well known (Proskouriakoff 1950; Miles 1965; Parsons 1986; Prater 1989). The fact is that the linguistic history of the highlands of Guatemala, the highlands of Chiapas, and the Pacific Coastal plains of Chiapas, Guatemala, and El Salvador is *extremely* complicated, and a single, clear picture, is nowhere in sight. What *is* clear is the abundant evidence for linguistic contact in the region. Such contact involves a wide variety of linguistic actors (Campbell and Kaufman 1976; Kaufman 1976; Campbell 1978, 1984; Justeson et al. 1985; Mora-Marín 2005): Zoqueans, Mixeans, Xincans, Lencans, Jicaqueans, and Mayans of different lineages, including Greater K'iche'ans, Greater Mameans, Greater Q'anjob'alans, and Ch'olan-Tzeltalans. In addition, Yucatecan speakers, in direct contact with Ch'olan-Tzeltalan speakers since the Middle Preclassic at the latest, were similarly involved, in this linguistic exchange, as well as possibly Gulf Coast Zoqueans. Kaufman (1976, 1989, 2001, 2007) has considered models involving the presence of Greater K'iche'ans and Xincans at Kaminaljuyu, together with Mixean or Ch'olan-Tzeltalans as ruling elites. These are all quite simply possibilities that cannot yet be discounted. It is the goal of this paper to examine specific examples of linguistic diffusion between the Mixe-Zoquean and Mayan languages in order to test their role in the articulation of precedents for elite Classic Mayan culture. The hypothesis is simple: should one branch of Mixe-Zoquean appear to have contributed significantly more to the formation of significant aspects of elite Classic Mayan culture, it might be possible to locate a region that served as the core area of interethnic interaction where such elite markers were innovated and diffused. A primarily Mixean contribution could support a model of southern highlands interaction, and thus implicate cities like Izapa, Tak'alik Ab'aj, Kaminaljuyu, and possibly Chalchuapa; whereas a primarily Zoquean contribution could support a western or southern lowlands interaction as the cradle of specific sets of elite Classic Mayan markers.

With such a goal in mind, this paper is organized as follows. First a review of the relevant literature and the types of relevant data is provided. Second, the methods are described and the sources of data presented. Third, the data set is analyzed. Fourth, the implications of the results are presented. Finally, conclusions and recommendations are presented.

Review of Scholarship

Campbell and Kaufman (1976) proposed the identification of the Olmecs as Mixe-Zoquean speakers, based on the fact that Mixe-Zoquean vocabulary indicative of a prominent political role (ritual, commerce, agricultural) has been borrowed by every language family of Mesoamerica, in some cases intensively as a result of close language contact. They implicate Mixe-Zoqueans in the Pacific Coast and Southern Highlands of Guatemala, given their identification of Mixe-Zoquean loanwords in the Highland Mayan and Xincan and Lenkan languages.

Campbell (1972, 1978) has recognized the Xincan motivation of a series of placenames from the central and eastern highlands and Pacific piedmont of Guatemala. Kaufman (1976) entertained the possibility of successive episodes of Mixean and Poqom settlement at Kaminaljuyu during the Preclassic period, based on their ethnohistorical and present distribution, but more recently (Kaufman 2000) has given serious consideration to Xincan too, at least as part of a general population of the site, but probably not its ruling elite. The fact that Ch'olan-Tzeltalan speakers served as the donors for important components of the commerce and ritual vocabulary of the Greater K'iche'an languages, the wholesale agricultural vocabularies of the Xincan and Lencan (Campbell 1984), and that some Mayan language clearly exerted a strong influence on Xincan, given its shift from a non-verb-initial language to a verb-initial language, a pan-Mayan characteristic but one that is likely the result of Ch'olan-Tzeltalan influence if considered in conjunction with the loanword evidence, all point to a scenario in which multiple languages were present in close contact: Ch'olan-Tzeltalans, Greater K'iche'ans, Xincans, and Lencans. More recently, Justeson and Kaufman (1993, 1997) and Kaufman and Justeson (2001, 2004) propose that the Epi-Olmec script represents a pre-proto-Zoquean language; given its distribution—Chiapa de Corzo, San Andrés Tuxtla, Tres Zapotes, Cerro de las Mesas, La Mojarra (**Figure 1**)—one would expect Zoquean influence to be reflected in Mayan writing, particularly if the Epi-Olmec scribes were the primary intellectual partners of the Mayan scribes; although Justeson and Kaufman (1993) include the site of El Sitio in the region of Epi-Olmec writing, the celt named after that site remains undeciphered, and its presumed Zoquean affiliation untested. These authors in fact note that El Sitio falls within the region of Tapachultec Mixean speech, and thus, it could very well have been a Mixean language that was utilized in such artifact. Mora-Marín (2005) argues that Kaminaljuyu and Tak'alik Ab'aj writing show a number of innovative traits with the Lowland Mayan script, with only conservative stylistic traits reflecting a link with the Epi-Olmec tradition, and follows authors like Fahsen (2000) and Viel (1998), who have pointed to an important number of similarities in material culture between Kaminaljuyu and Copan, with Fahsen in particular arguing that Ch'olan-Tzeltalan speakers from the highlands migrated to Copan at the end of the Late Preclassic period, between ca. A.D. 100-200, when Kaminaljuyu was overrun and its inscribed monuments destroyed, and part of its population replaced.

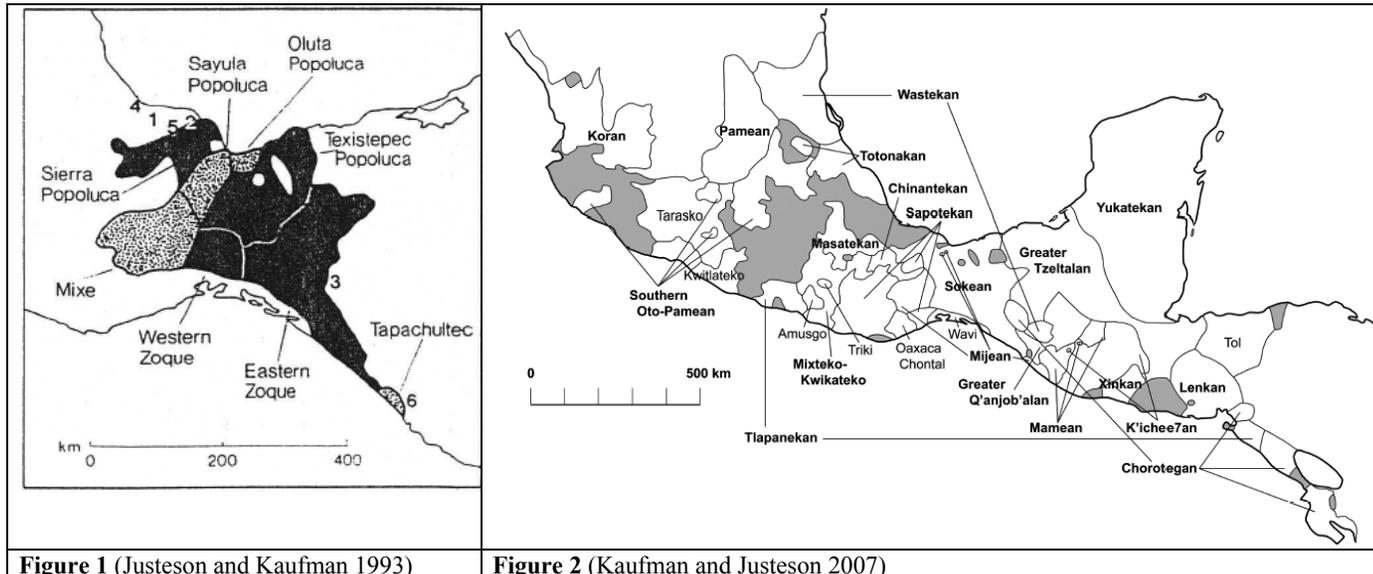


Figure 1 (Justeson and Kaufman 1993)

Figure 2 (Kaufman and Justeson 2007)

Methods, Assumptions and Data

The author has set out to determine the degree of intensity of the contact between Mixe-Zoquean and Ch'olan-Tzeltalan, and the nature of that relationship by examining the pertinent linguistic influences and semantic domains. Particular emphasis is given to Classic Mayan vocabulary, under the following hypothesis: If Mixe-Zoquean elites, whether as Olmecs, Epi-Olmecs, or Izapans, were influential on Ch'olan-Tzeltalan elites, such influence should be reflected in crucial Classic Mayan vocabulary. Lastly, attention has been paid to both Mixean and Zoquean data, and their relative prominence among the vocabulary sets indicative of diffusion is used to weigh the comparative contribution to Classic Mayan elite culture.

Regarding the details of linguistic prehistory, the following assumptions are made: 1) if language A exhibits sounds *x* and *y*, and language B exhibits only sound *x*, the direction of a loanword exhibiting sound *x* will be unclear, other things being equal, while the direction of a loanword exhibiting sound *y*, absent from language B, will most likely be from A to B; 2) if language A represents a

proto-language whose descendants widely attest to the presence of word *x*, while language B represents a proto-language whose descendants attest to the presence of word *x* in a highly restricted distribution pattern, the more likely of the two to be the donor language, other things being equal, will be the proto-language exhibiting the wider distribution of word *x*; 3) if languages A and B exhibit a word *x* whose etymology can only be derived based on the morphological and phonological properties of language B, not language A, then language B is the more likely donor language.

The sources of data are primarily Wichmann (1995) and Kaufman (2003), with supplementary data from Kaufman and Norman (1984) and Justeson et al. (1985). No data from Wichmann (1998) have been used at this point, but will be invoked in a future version of this manuscript. Five types of vocabulary that are likely to exhibit evidence of language contact are compiled and discussed: ritual, kinship, elite status, travel, and commerce.

1. **Ritual** vocabulary
2. **Kinship** vocabulary
3. **Elite status** vocabulary
4. **Travel** vocabulary
5. **Commerce** vocabulary

Table 1 lists the data and characterizes the nature of the interaction and the linguistic entities involved. The abbreviations are coded as follows: pM = proto-Mayan, pCM = proto-Central Mayan, pMi = proto-Mixean, pZ = proto-Zoquean, pMZ = proto-Mixe-Zoquean, C = Ch’olan, Tz = Tzeltalan, Yu = Yucatecan, pOM = proto-Oaxaca Mixean, pGZ = proto-Gulf Zoquean, LL = Lowland Mayan (Ch’olan and Yucatecan contact area), GLL = Greater Lowland Mayan (Ch’olan-Tzeltalan and Yucatecan contact area). The results and analysis are provided after this table. The last column interprets the direction of diffusion, which may be from Mayan to Mixe-Zoquean or the reverse, as indicated by the “greater than” for “to” or “less than” for “from” symbols. Of 31 entries below, only 7 constitute terms *not* attested in Classic Mayan inscriptions.

Table 1. C(h’olan), Tz(eltalan), Yu(catecan), Mi(xean), Zo(quean) Comparanda.

Lexical Set	C	Tz	Yu	Mi	Zo	Analysis of Direction of Diffusion
1	pM *suht ‘volver’				seet ‘regresar’	pM > pZ
2	Classic Mayan ‘baktun’ glyph reading pi-hi			pOM *pih-n ‘bolsa’		LL < pOM (Classic Mayan)
3	Chol čič ‘hermana mayor’, chi-chi	Tzeltal čič ‘pariente	pYu *kiik ‘older sister’,	pMi *čiči? ‘older sister, aunt’	pZ *čiči ‘older sister,	GLL < pMZ (Classic Mayan)

		hembra'	Northern Yucatan texts ki-ki		aunt'	
4	GLL, Classic Mayan , + Tojolob'al, Chuj, Mocho': *muut 'bird, omen'			pMi *muuʔsi 'bird'		GLL < pMi (Classic Mayan)
5	GLL, Classic Mayan , *muq' 'strength'			pMi *m+k+k 'strength'		GLL < pMi (Classic Mayan)
6		WM+Yu *b'iq'et		pOM *piʔk		GLL+ < pOM
7	pYu *tuun '(and) then', possibly Classic Mayan T548 TUN/(HAB'ʔi/b'i)			pMi *hatuʔn 'así (pues)'		
8	pM *nooq'				pGZ *nökkoy 'pantalón'	pM > pGZ
9	pM *ʔook 'enter', Classic Mayan ʔo-chi			pOM *ʔo(h)ʕ 'leave, return'		pM > pOM
10	WM *tek' 'to step on', Classic Mayan te-k'a-ja			pOM *teky 'foot'		WM > pOM
11	pM *[r-]ehtaal 'footprint, trace, scar, sign', Classic Mayan ye-ta-la			pOM *ʔiš-taʔn 'sign'		pM > pOM
12	pM *ʔaaq' 'vine'			PMi *ʔaaʔʕ-a 'vine'		pM > pMi
13	pM *ʔooŋ 'avocado'			pZ *ʔow 'avocado', pMi *ʔon 'to grease'		pM > pZ
14	pCM *q'up 'cortar con la mano'			pOM *keeʔp 'cortar con tijeras'		pCM > pOM
15	pC *chum 'seated' LL (+ Classic Mayan chu-mu) pYu *kum (Yucatec kun- or kul-) 'seated'			pMZ *çinay 'sentarse' (cf. pOM *win-çin 'master, boss, host')		LL < pMZ (pOM)
16	LL *sakuʔn, pYu *sukuʔn 'older brother', Classic Mayan sa-ku-na			pOM *çuku- (aunt/uncle), çuku 'aunt', çuku-m 'uncle'		LL < pOM

17	LL <idzat> ‘wise, sage, artist’, Classic Mayan ʔi-ts’a-ti , present in GQ’ and GM (lacking in CT, GK’, and Huastec), but etymology is most straightforward in pOM; Mayan has probably analogically backformed the root #ʔiʔč’ from the pOM form	pOM *ʔiš-ʔa(h)t ‘to know’, based on pMZ *ʔis ‘see (e.g. a book)’		LL < pOM
18	Classic Mayan God D: ʔičamnah (cf. LL+WM (diffused) *kyitaam ‘peccary’)	pOM *ʔičimi ‘peccary’		LL < pOM
19	*ča[h ^w]uk (not word itself but palatalization/affrication), Classic Mayan cha-hu-ku and cha-ki ; pM *kahōq	pOM *wičuk		LL < pOM
20	pM *waʔ ‘stand’, Classic Mayan wa-ʔa-wa-ni , Colonial Yucatec <wac>	pMi *waʔk		pM > pMi
21	related to Classic Mayan yi-ta-ji?	*-itah) ‘reciprocal’		LL (Classic Mayan) < pZ
22	LL *čik ‘count, recount, converse’; pMi could account for iconicity (incense burner lid) of T124; pZ for the meaning: tsi-ki	pMi *čikik ‘copal tree’	pZ *čik-i ‘obra, hecho; dibujo, diseño’, *čik ‘to grasp; to do it; to believe it’	LL < pMi/pZ
23	Classic Mayan ko-jo-yi ‘(it became) paint(ed)’ Exhibits -j : -y correspondence; (may be present in K’iche’ as koj ‘to (place a) mark’, as seen in PMED entry for pM *(r-)ehtaal)	pMZ *koy ‘pintar’		LL < pMZ
24	Classic Mayan HAWK sign for CHAN ‘sky’, pC *chan	pMZ *čaphi ‘sky’ and pZ *tahpi ‘hawk’		LL < pZ
25		pYu maan ‘to go by’	pZ *maŋ ‘to go’	LL < pZ
26		čac ‘strainer, basket’ (if pYu then it underwent *k- > č-), Classic Mayan cha-	pOM *kač ‘canasta’	LL < pOM

		chi			
27	LL + Mocho	*huuy 'stir' (cf. Yu <i>huuy</i>)	pMi	*hoʔy	GLL < pMi
28	LL (+ Postclassic Codices)	*chuy 'cocer'	pMZ	*suy 'sew, fish with hook'	LL < pMZ
29	Classic Mayan -na-la and -NAL, Yucatecan: .nal (< .nal) 'from X place'		SM Ch Z	*.way 'inhabitant of'	pYu > SM Ch Z
30	pM *kab' ~ *kaab' 'earth' (pM), LL, Classic Mayan ka-b'a		pOM	*kahnVn (e.g. LM: SJ kahn) 'pueblo, poblado'	pM (not from pCT, unless a form of pre-pCT or proto-C, since the latter had borrowed *kab' from Yu before its diversification) > pOM
31	Classic Mayan ʔel-el 'burn' (ʔ- : y- and -l : -n-correspondences), pC		pOM	*yeeʔn	LL < pOM

Comment [DM1]: If borrowed from pMi, the difference in the vowel could possibly be the result of the Ch'olan **oo/oʔ > *uu > u shift.

As shown in Table 2 below, it is the Mixean languages that appear to have contributed most heavily to Classic Mayan and Lowland Mayan vocabulary, especially proto-Oaxacan Mixean, located along the western Oaxacan highlands and the Pacific coast and piedmont.

Table 2

	pMZ	pZ	PGZ OR SMCHZ	pMi	pOM			
pM						9	11 non-Yu and non-CT exclusives	
pCM						1		
pWM						2		
pYu		1	2		1	4		
Classic Mayan and Postclassic codices						23	Classic Mayan	
LL				2		12		
GLL				2		6		
Totals =	4	5	1	8	13			
		6 Zoquean forms		21 Mixean forms				
	One pZ/pMi not included, one pMZ (pOM) counted as pMZ							

The data implicate Mixean and the Greater Lowland Mayans as engaged in particularly close contact. The interaction probably took place along the Pacific coast/piedmont corridor. Of the 21 Mixean forms, 13 are reconstructible to pOM. It is plausible that it was the ancestor of the modern Oaxacan Mixean languages that was scattered along the Pacific Coast and piedmonts (e.g. Tapachultepec) of Chiapas and Guatemala. In addition, 8 of the terms are proto-Mijeán. Yucatecan has experienced a separate history of interaction with Zoquean; in particular, when such interaction can be narrowed down, it implicates proto-Gulf Zoquean. More research on Yucatecan will likely yield more examples of Zoquean material, and vice versa.

My gut feeling is that Ch'olan(-Tzeltalan) speakers interacted with Mixean speakers in the highlands and Pacific slopes of Guatemala, at Kaminaljuyu and Tak'alik Ab'aj and possibly Izapa. There is a strong chance they were not the only peoples there: Greater K'iche'ans and Xincans were likely in the same region or immediate vicinity. But the likelihood that writing in the region would reflect anything other than Ch'olan-Tzeltalan or Mixean is low, given that these were the superstratum groups in the region, as indicated by the nature and direction of the loanwords on the Greater K'iche'ans and Xincans (cf. Kaufman 2001). Having studied carefully the recent rubbings of Tak'alik Ab'aj Stela 5 by the Tak'alik Ab'aj Project, I believe the identification of a spelling **ʔAJAW-wa** for *ʔaajaaw* 'lord, ruler' is in fact correct, which means the monument is written in a Mayan language. Stela 10 from Kaminaljuyu also can be shown to share representational innovations with Lowland Mayan writing, including specific ritual epithets (e.g. 'Mountain Lord'), and possible linguistic innovations of Greater Lowland Mayan affiliation (e.g. =teʔ, *chihj-čan*), cf. Mora-Marín (2001, 2005). Below is a list of correspondences between Classic Mayan material and Mixean material, particularly pOM in most cases. Interestingly, Classic Mayan T548 **HAB'** for **ha'b'* 'year', but also **TUN** for a form of pM **tyuun* 'cylindrical object (e.g. musical instrument like flute or drum)' and Yucatecan **túun* 'then', is attested early on in the spelling **ha**[T548], which in later times, when the sign's design had changed significantly, it had acquired an additional reading as the syllabogram **ʔi**, yielding the reading **ha-ʔi** 'that one' in said context. This is peculiar because, clearly, the **TUN** value of the T548 DRUM sign could have also yielded **ha**[**TUN**], an adequate spelling for a putative pMi source **haduʔn* 'asi pues'. This correlation would only be significant if it can be shown that T548 was not in fact originally T679 **ʔi**, with which it later merged in the context of this expression 'and then'.

Table 3. Classic Mayan and CT Palatalization and Affrication

SET	CLASSIC MAYAN	MIXEAN	ZOQUEAN
3	chi-chi [Northern Yucatan ki-ka]	pMi <i>*çi?</i>	pZ <i>*çiči</i>
9	ʔo-chi	pOM <i>*ʔohç</i>	
15	chu [mu]	pMZ <i>*çiin(ay)</i>	
	cha-chi , čaç 'strainer, basket' (if pYu then <i>*k-</i>	pOM <i>*kač</i> 'canasta'	

	> č-		
	cha-hu-ku, cha-ki, *ča[h ^w]uk (not word itself but palatalization/affrication)	pOM *wičuk	
	Classic Mayan HAWK sign for CHAN ‘sky’, pC *chan	pMZ *čaphi ‘sky’ and pZ *tahpi ‘hawk’	

Last, it is also possible that Ch’olan-Tzeltalan speakers used Mixe-Zoquean palatalization and affrication of stops as a model for their own process of affrication through palatalization, i.e. the $k(ʼ) > č(ʼ)$ shift. Table 3 shows that all of the Ch’olan-Tzeltalan (and corresponding Classic Mayan) forms that formerly exhibited *k or *k’ underwent this shift to *č, and for each of these—some of them possible cognates, some of the loanwords—pMZ, pMi, or pOM also exhibits a form with a corresponding affricate, *č. Every time MZ shows a form with a *k such form exhibits a corresponding *k(ʼ) or *q(ʼ) in Mayan: items that do not bear this palatalization and affrication in Mixe-Zoquean do not do so in Ch’olan-Tzeltalan either. Although 6 cases of Classic Mayan and MZ affrication, even without exceptions, may not amount to an impressive number, the reverse relation involves 10 cases of Classic Mayan *k without affrication which also match MZ cases without affrication, without exceptions. In total, there is a 1:1 correspondence in 16 cases of the value [=affrication] for *k.

Discussion and Needed Steps

The data suggest a bias toward pOM as the source of loans into the Greater Lowland Mayan languages, with five loanwords: ‘bolsa’, ‘pequeño’, ‘ant’, ‘uncle’, ‘know(er)’. Three of these are Classic Mayan elite vocabulary, particularly pOM *pih-n ‘bolsa’, which may finally solve the mystery behind the **pi-hi** spelling for the count of 400 years, and *ʔiš-a(h)t ‘know’, from which *ʔiç’at ‘sage, wise’ likely derives. The term ‘peccary’ from pOM seems to be the source for the Classic Mayan deity name **ʔičamnah** (God D). In addition, two loanwords in the Greater Lowland Mayan languages appear to come from pMi: ‘bird’, ‘strength’. These terms are also prominent in the Classic Mayan inscriptions and relate to ritual expressions. These seven Mixean loanwords overall, while few, are nonetheless crucially selective, suggesting interaction between Mayans and Mixeans at the elite levels, particularly among scribes. There exist yet a few more cases of likely loanwords that may offer striking implications about interethnic interactions. Rather than Mixean, these loanwords are not easily narrowed down, but are instead reconstructible to pMZ. For instance, pMZ *čīnay ‘sentarse’, likely composed of a root *čīn-, corresponds to LL *kum ‘sentarse’, attested as *chum in pC and *kum in pYu. It is attested in pOM as the second term of the form *win-čīn ‘master, boss, host’.

Conclusions—No Firm Conclusions Yet

References

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