



A Mixe-Zoquean Loanword in the Late Preclassic Maya Murals of San Bartolo?

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The publication of the North Wall of the murals of San Bartolo by Saturno et al. (2005) contains analyses of the few and generally enigmatic hieroglyphic expressions that accompany some of the painted images. One of the expressions consists of a sequence of three signs identified as **po-mo-ja** (Saturno et al. 2005:41) (Figure 1). In their commentary the authors relate the expression to the word for 'copal' (incense). This has been reconstructed as proto-Mayan **po:m* (Brown and Wichmann 2004:177; Kaufman 2003:1358) but has long been known to ultimately constitute a loanword from Mixe-Zoquean (Campbell and Kaufman 1976). While observing that there could be a connection between the expression **po-mo-ja** and the word for 'copal,' the authors nevertheless express skepticism because of the problematical presence of the **ja** sign. Its presence is unexpected given that other hieroglyphic attestations of the word for 'copal' are written **po-mo**. The main purpose of this brief note is simply to point out that a spelling **po-mo-ja** for the copal word is actually *not* unexpected in an early text, such as this Late Preclassic mural of San Bartolo, which probably dates to the first century BC (Saturno et al. 2005:6-7). Given the lack of contextual evidence we cannot be completely certain that it *is* in fact the word for 'copal' which is reflected in the spelling. But at least we can provide arguments to the effect that it *could* conceivably be this word.



Figure 1. Text N-I from San Bartolo (after drawing by David Stuart in Saturno et al. 2005:42).

The early spelling makes sense if we look at the Mixe-Zoquean background. In Wichmann (1995:434) I reconstructed the proto-Mixe-Zoquean word for 'copal' as **po:m(o)*. The parenthesized (*o*) is a way of indicating that there is an unresolved problem of reconstruction consisting in deciding whether or not the final *o* was present in the proto-Mixe-Zoquean parent language. The problem is that Zoquean shows evidence for a final *o*, while Mixean lacks such evidence. Nevertheless, given that the forms are otherwise similar in the two branches we must assume that they descend from one and the same word. Now, there is an additional detail of relevance, which is not reflected in the reconstruction of Wichmann (1995:434) but which is discussed on pp. 201-202 of the same work. The Central (Copainalá) dialect of Chiapas Zoque has a form *pomoh*, exhibiting an additional final *h*. The case is not isolated. As detailed in Wichmann (1995:201-2), there are several other disyllabic nouns and

adjectives for which this dialect of Chiapas Zoque exhibits a final *h* but for which cognates in other languages lack such an element. My assumption in the 1995 work was that the dialect had for some reason added an *h*, but I also noted that there are several disyllabic nouns and adjectives where a final *h* does *not* appear. Thus, it was not possible to identify any regular rule accounting for the addition of *h*. If one were to slavishly follow the comparative method, one would need to reconstruct a final *h* for proto-Zoquean in the forms in question. But such a reconstruction would imply that all languages and dialects except this particular variant of Chiapas Zoque have lost a final *h* in disyllabic nonverbs. Being uncomfortable with this postulate I preferred not to reconstruct the final *h*, and instead left the evidence from Copainalá unresolved. However, if the word on the San Bartolo mural really does refer to copal it now seems that the final *h* should indeed be reconstructed.

Some remarks on the phonological interpretation of **po-mo-ja** need to be added. First, it is noticeable that we have a spelling involving a velar fricative, not a glottal one. The difference with respect to a reconstructed proto-Zoquean **h* is only apparent, though. Mixe-Zoquean languages do not make a distinction between a velar and a glottal fricative. In fact, what we reconstruct as **h* could have been pronounced either way. Maya who adopted the form could have heard the final sound as a velar fricative, and this is what it may actually have been. In any case, the orthographic velar fricative is not an obstacle for the borrowing scenario advocated here. Secondly, the ‘silent’ *a*-vowel of **po-mo-ja** would constitute a problem if the orthographical rules of Lacadena and Wichmann (2004) applied. Our ‘harmony rules’ predict a pronunciation *pomo’j*. However, as we observe (Lacadena and Wichmann 2004:131-132), these rules were not fully operative before sometime around the ninth cycle in the Maya calendar system; before then, a dominant default pattern was to use –Ca syllabic signs for phonetic complementation, exactly as in the San Bartolo inscription. Thus, the spelling **po-mo-ja** is fully compatible with a reconstructed proto-Zoquean **pomoh* (or a pre-proto-Zoquean **po:moh*).

What is perhaps most interesting about this possible early attestation of the word for ‘copal’ is that it potentially allows us to be more precise about the origin of the borrowing. Given that nouns both of the structure CVCV (two open syllables) and CVC (one closed syllable) exist in Mixe-Zoquean, whereas Mayan exhibits CVC or—more rarely—CVCVC—canonical shapes, we can be reasonably sure that the copal word originated in Mixe-Zoquean and diffused into Mayan. The CVC shape (*po:m* or *pom*) in all modern Mayan languages as well as in later hieroglyphic texts can be explained in terms of the preferred phonotactic structure of Mayan languages. But we would not be able to explain the CVCV(h) shape in Zoquean if the point of departure were a Mayan CVC form, because Zoquean exhibits both CVC shapes and CVCV ones. Thus, there is no reason to call into question the hypothesis that the word diffused from (some stage of) Mixe-Zoquean into Mayan and not the other way around.¹ More interestingly, however, if **po-mo-ja** really refers to ‘incense’ we may now be able to pinpoint the origin more precisely to the Zoquean branch, since it is here that we find the full form *pomoh*,

¹ The directions of many loanwords supposed by Campbell and Kaufman (1976) to have spread from Mixe-Zoquean to other languages of Mesoamerica have been contested by Wichmann (1999) and Dakin and Wichmann (2000). But in this case the direction assumed by Campbell and Kaufman (1976) must be correct.

whereas Mixean shows no evidence of the second *o* or the final *h*. At the early stage of the San Bartolo inscription the original pronunciation would still have been preserved. Later on, all Mayan languages, including Ch'olan ones, would have modified the form by dropping the final *...oh* sequence. Possibly this change, in turn, influenced the way that Mixean speakers would pronounce the word. In any case, provided that the 'incense' interpretation is correct, Zoquean—most likely proto- or pre-proto-Zoquean—seems to be the original donor.

A recent paper by Wichman, Beliaev, and Davletshin (forthcoming) takes a look at what the combined evidence from archaeology—especially architecture and obsidian—and linguistics—in particular, loanwords and glottochronology—may tell us about ethnic differentiation among the Olmecs. We find several lines of evidence indicating that the Olmecs were composed of at least two different ethnic groups. As argued in the paper, there is reason to believe that La Venta and the general Chiapas area could have been specifically Zoquean. If what we have at San Bartolo is the word for 'incense,' it is then most likely from La Venta or Chiapas that the 'copal' term diffused into Mayan, probably just a few hundred years before it appears to turn up in the ancient inscriptions of San Bartolo.

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