

Punctuation Marks In Ceramic Texts

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Punctuation marks occur very rarely in early scripts. Modern punctuation marks as we know them are an invention of the Renaissance, but as a binding standard they were not regulated in most writing traditions until the 19th century. In fact, word separators are found in various ancient writing systems, for example in Anatolian hieroglyphs (Melchert 1996: 121) and old Assyrian cuneiform, where a vertical wedge was sometimes used as a word divider (Cooper 1996: 53). Umbrian and other italic scripts used two dots, one above the other, to indicate word boundaries (Vetter 1953). The visual marking of sentence boundaries is much less common, however. One of the few early examples of punctuation marks to indicate the end of sentences is the Canaanite stela of Moab from around 840 BC, where vertical strokes are used to mark the end of sections that might be comparable to biblical verses (Müller 1985). By the fifth century BC, Greek playwrights were using some basic symbols such as strokes and points after a sentence to show where actors should pause. Aristophanes of Byzantium (c257- c185 BC) invented a formal system of punctuation, which had the principal function to help the reader with the correct pronunciation of a text. A high point was used to indicate a full stop, while a point in the middle position stood for a longer pause (Parkes 1993). In the Roman scriptural tradition, texts were structured according to rhetorical aspects. A dot on the line, the *comma*, denoted the short pause, a medium-high dot, the colon, the middle pause and a high dot, *periodus*, the end of the sentence. This was at least the theory; in practice, however, the system was obviously of little importance (Wingo 1972). In any case, it lost importance in late antiquity. Charlemagne advocated consistent punctuation, but this did not prevail, so that a multitude of non-uniformly used combinations of dots and strokes were used to mark sentence boundaries. On the opposite end there was a *scriptura continua*, i.e. letters that followed each other continuously and at regular intervals; there was no word division in these texts, resulting in a beautiful, but hardly legible calligraphy (Saenger 1991).

The use of punctuation marks has not been documented for classic Maya hieroglyphic writing so far. However, we know from colonial Yucatec dictionaries of the 16th and 17th century that there was a term for inserting such marks. Two dictionaries, the San Francisco dictionary (Michelson 1976: 357) and the Diccionario de la Lengua Maya by Juan Pio Pérez (1866-77: 346) mention terms such as *t'a h ts'ib* "tilde, puntos en la escritura" and *u t'ahal sabak*, which are compounds based on the nouns *t'ah*

"drops of a liquid", *sabak* "ink" and *tz'ib* "writing" respectively. *Thunil dzib* "drop writing" was another word for "punto en escritura" (Michelon 1976: 362). Colonial Yucatec scribes thus had access to a philological terminology, but we do not know for sure whether these concepts already existed in the pre-Hispanic period, or whether they are the result of contact with European scribal practice. Only a few authors have so far commented on the topic of punctuation in the Maya script, including Martha Macri and Matthew Looper, who deny the existence of punctuation or signs indicative of reading known from the Maya script (Macri and Looper 2003: 30).

There is no indication of punctuation at the end of sentences on classic period monumental inscriptions, most likely because they employed other strategies to enhance the transparency of texts in regard to the division into meaningful syntactic units. First of all, there was the tightly knit framework of Calendar Round dates and Distance Numbers, which divides texts into segments and sentences. In addition to the chronological latticework, the arrangement of glyph blocks over the carved space, the framing of texts and differences in size also provide structural limits which guided the reading flow (Prager 2021). Another device may have been color. On several long texts painted on ceramics and which contain Calendar Round dates, the Tzolk'in day sign cartouche is painted in red (Helmke *et al.* 2018:44). On the one side, this practice is linked to the idea of the day sign cartouche of a bleeding heart (Houston, Stuart and Taube 2006: 93), but at the same time, the red colour also facilitates orientation and provides an easily recognizable visual device for syntactic boundaries (Eberl 2014; Prager 2021).

However, if we turn our attention to texts painted on ceramics, we will find possible candidates for the existence of punctuation marks. The dedication texts ("Primary Standard Sequence"), which were mostly written below the rims of the vessels, are particularly long sentences which, as Michael Coe pointed out as early as 1973, display a high degree of standardization. Dedication texts are often arranged around the circular body of the vessel in such a way that the last and the first hieroglyph of this formulaic text meet directly. For the untrained observer, this creates a seemingly endless band of hieroglyphs without clear divisions. For this very reason, Classic Maya scribes almost always indicated the beginning of the dedication phrase with the hieroglyph *alay*, "here", which directs the focus to the beginning of the sentence. The reading of this hieroglyph, first proposed by Barbara MacLeod and Yuriy Polyukhovich (2005), has been controversially discussed for some time, but the existence of explicit syllabic spellings **a-la-ya** confirms the reading, at least for the classic period.¹ The *alay* hieroglyph directs the reader to the start of the dedication text and immediately precedes the verbal phrase. Only in a few cases scribes replaced *alay* with a date (Kerr 3636) or the date and the demonstrative *haa* (**ha-i**) "this is, here is" (Kerr 1728).

Maya scribes also had other methods of pointing out the place on the vessel's surface where the dedication formula ended and began. A very common strategy was to arrange the scenes on the ceramics in such a way that the visual axis points to the *alay* hieroglyph above. If palace scenes were painted on a ceramic, the image of a wall not only provides a frame for the proper scene but the wall is often in line with the beginning of the dedication phrase (Fig. 1). When other genres are painted, the scenes are also oriented around an imaginary axis that coincides with the beginning of the dedication formula.

¹ Kerr 5458; Kerr 8123; Kerr 8955; Grube and Gaida 2006, Kat. No. 2. It is still possible that there was a second or alternative reading of this hieroglyph as *ayal*, probably related to the root **ayan* "there is/are" (Kaufman and Norman 1984: 116).



Figure 1. Wall and visual axis pointing to the end and beginning of the sentence. A) Kerr 2914; b) Kerr 5456.

Particularly skillful scribes knew exactly how to use the space available to them. The hieroglyphs were carefully placed so that all the text elements that were necessary were painted underneath the rim of the vessel, without leaving any empty space or missing any of the elements of the Primary Standard Sequence. Nevertheless, the dedication formula without question was so standardized and well known that not all elements had to be written. Abbreviated dedication texts are extremely common. The scribes could count on the fact that the text was known, so that knowledgeable readers could memorize missing parts. The fact that the dedication text was widely memorized is suggested by the occasional appearance of the quotative *chehen* "so they say", which identifies the text as part of the collective memory (Grube 1998) (Fig. 2).

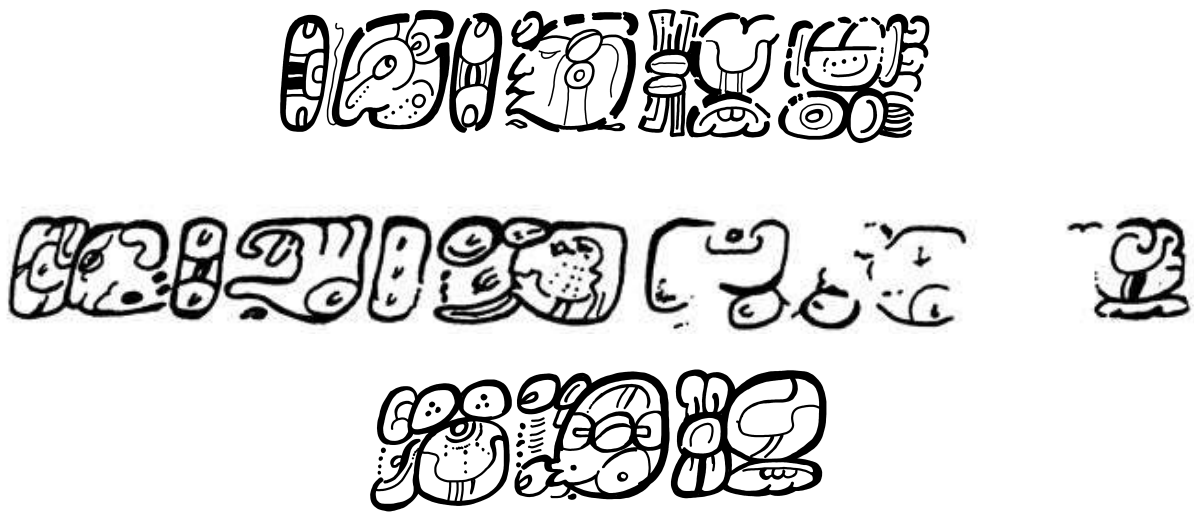


Figure 2. The quotative *chehen* "so they say", which identifies the Primary Standard Sequence as part of the collective memory. a) Kerr 5453 (drawing by Nikolai Grube); b) Kerr 1775 (drawing by Nikolai Grube); c) Kerr 7459 (drawing by Nikolai Grube).

While most scribes carefully planned the location of the hieroglyphs under the rim of a cylindrical vessel, less talented scribes, painting freehand and not calculating the space available to them, often had to squeeze the last glyphs into the limited space (Fig. 3). Other scribes left large blank spaces between the last and the *alay* glyphs. This created an aesthetically unpleasant impression, but the advantage of this was that the beginning and end of the text were easy to find. Sometimes, scribes filled the open space with single syllabograms. On Kerr 595, the scribe inserted the **che** sign, perhaps hinting at the Cholan quotative *che'* "he says" and thus confirming that the text was understood as an item of collective memory (Kaufman and Norman 1984: 139). On another vase (Kerr 7459), the scribe added the sign **la**, perhaps indicating the word *laj* "finish" or "completely, all" (Kaufman and Norman 1984:124), to mark the end of the Primary Standard Sequence.



Figure 3. Hieroglyphs squeezed into the space at the end of a rim text. Kerr 4961.

In yet other examples, the scribe has simply written a sign of the following word to fill the gap, e.g. **SAK** to indicate the implied title *sak wayis*, or a single syllabic sign **cha** to indicate a following *chatahn winik* expression (Kerr 2723; 2773; 4988; 5064; 5391; 5646; 8651; 8823).

However, there were also very talented scribes who wrote elegant and uniformly shaped hieroglyphic blocks, and who were aware of the problem of marking the beginning and end of the text. These scribes inserted signs in this position, which can be interpreted as punctuation marks. The existence of these marks has already been noticed by Michael Coe and Justin Kerr, but they considered them to be space fillers: "From time to time one does see the effect of compression near the end of lengthy Primary Standard Sequence texts, or the use of space fillers where the line of glyphs does not quite 'make it to the end', but in general cases like this are rare" (Coe and Kerr 1997: 143).

I would argue that these markings fulfill a real syntactic function rather than just expressing the fear of a *horror vacui*, because they are highly conventionalized and appear on ceramics from different periods and in different painting styles. Basically, there are just two types of marks. On some ceramics, there are one or two vertical lines indicating the end of a dedication formula (Kerr 1901, Kerr 3459, Kerr 5229, Uaxactun Initial Series Vase, Altar de Sacrificios Vase, Holmul Vase [Merwin and Vaillant 1932, p. 72, Table 30a and c]; Fig. 4). Most common, however, are two vertically arranged dots or circles, sometimes with small fillers added (Kerr 2068; Kerr 2573; Kerr 3049; Kerr 3459; Kerr 5006; Kerr 5868; Kerr 8651; Kerr 9183; Colico Vase [Robicsek and Hales 1982: 6, Kerr 1377]; Altun Ha style vase MS 0253 [Reents-Budet 1994: 200]; Chocolate Museum bowl in Cologne [Krempel, Matteo and Davletshin 2017], Caracol bowl in Cambridge [Houston and Tokovinine 2017]; Fig. 5). So far, these punctuation marks can only be shown to have existed within the context of dedication texts on ceramics. And yet, it is not impossible that they had a much wider distribution. The reason why we do not see these punctuation marks elsewhere may be that most long texts consisting of multiple sentences are usually structured by calendrical data or other formal devices. There are only very few "thick" texts in the Maya corpus which are not divided into shorter units by dates, such as the "vomit pot" (Kerr 6020) or the Vase of the 88 Glyphs (Kerr 1440). I suspect that this is a consequence of the state of preservation and the surviving text corpus, which also affects the genres of texts represented. Thus, we can only hope to one day find longer texts that do not contain dates and can answer the question of whether sentence markings also existed outside the environment of the Primary Standard Sequence.



Figure 4. One or two vertical lines indicating the end of the sentence. A) Kerr 1901; b) Kerr 5229; c) Uaxactun Initial Series Vase (Smith 1932).



a



b



c



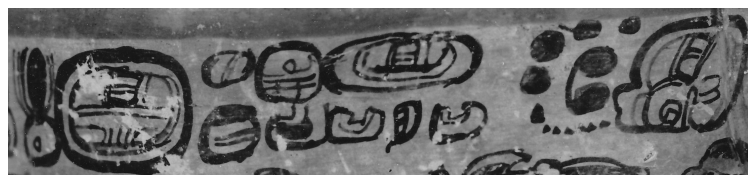
d



e



f



g



h



i

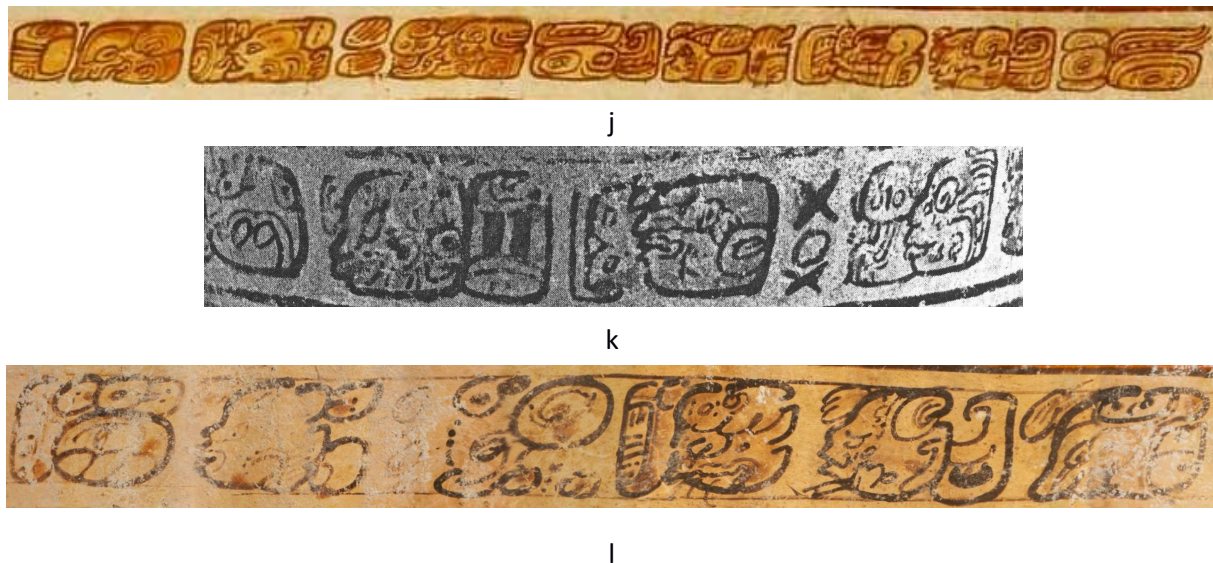


Figure 5. Two or three dots at the end of a sentence. A) Kerr 2068; b) Kerr 2573; c) Kerr 8651; d) Kerr 9183; e) Kerr 1377 „Colico Vessel“; f) Chocolate Museum Cologne Bowl (Inv. Nr. 50038), drawing by Guido Krempel, 2017; g) Caracol bowl in Cambridge, Houston and Tokovinine 2017; h) Kerr 3034 (Reents-Budet 1994: 204); i) Kerr 8947; j) Kerr 5006; k) Rietberg Museum Zürich vase; l) Codex style vase, rollout stitching by Guido Krempel (GK # 0039).

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