VAYEB NOTES



ISSN 1379-8286

AN OLD EUPHEMISM IN NEW CLOTHES:

OBSERVATIONS ON A POSSIBLE DEATH DIFRASISMO IN MAYA HIEROGLYPHIC WRITING

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One of the well-known "passing away" euphemisms in Maya hieroglyphic writing is a collocation first identified by Tatiana Proskouriakoff (1963: 163) in her analysis of the inscriptions of Yaxchilan, Chiapas, Mexico. This collocation is usually composed of the following constants¹: T77, T17/575, T1, T179, and T503, with the following variables: T126, T23, T24, T82, and T743 (along with T679 [particle <i>* "then"/"and then", not presented in the list below]) yielding the following arrangements²:

T77:17/575.1.179:503 T77:17/575.1:179:503.24 T77:17/575 1.179:503:24 T77:17/575 1:179.503:? T77:17/575 1.179.503:24 T77:17/575? 1.179:503.82 T77:17/575 1:179.503hv:82 T77:17/575 1:179.503:82 T77:17/575 1:179.23:503:24 T77?:17/575 1.179.23:503:24 T77?:17/575:126.1:179?:503? T77:17/575.126 1.179:503:24 T77:17/575.126 1:179.503:82 T77:743.17/575? 1:179.23:503:82 T77:17/575.179:503:24

T77:17/575.1:179:23:82

T77:17 1.179:503 1.747:57

YAX, Lintel 27: F2

TNA, Monument 69: D1; PNG, Stela 8: A23

YAX, Stela 12: A2-B2 YAX, Lintel 59: L1-M1 YAX, Lintel 27: A2-B2 TNA, Monument 144: (n.a.)

PAL, Temple XVIII Stucco: pC2-pD2

PAL, Tablet of the Cross, Incensario Stand: H7-G8 PAL, Temple of the Inscriptions, West Panel: Q9-R10

YAX, Lintel 28: S1b-T1 PNG, Stela 7: C3 ALS, Stela 4: B6-A7

PAL. Palace Tablet: J10-I11 TNA, Monument 77: pA-pC DPL, St. 8: D10 (without T1 <u>) CPN, Hieroglyphic Stairway PNK, K4692 (Kerr n.d.a.): C4-C5

Except in the case of Dos Pilas Stela 8: D10, which does not exhibit a T1 possessive pronoun (<u>), and K4692: C4-C5 (Kerr n.d.), which ostensibly has another possessed noun that belongs to the same collocation according to Houston and Taube (2000: 267). For further analysis on K4692, see page 9 onwards.

According to the system utilized by Thompson (1962), period marks (.) indicate that the following sign is to the right of the preceding glyph, whereas colons (:) separate signs that are placed vertically. Infixation is marked with square brackets [], variant signs with the letter <v>, and head variants with the letters <hv> immediately after the T-number. In addition to this, a gap between the T-numbers indicates that the signs are composed of separate glyphs blocks with or without a visible gap. If the preceding glyph block is suppressed even slightly under the following glyph block, the Tnumbers are combined together as a string. For an inventory of these variable arrangements, see Table II and Table III. For reference, the currently accepted readings for the abovementioned signs with T-numbers are: T77: **K'A'**; T17/575: **yi**; T1: **u**; T179: ? (=T533v[58] / [T58]533v /T58:533v); T503: **IK**'; T126: **ya**; T23: **na**; T82: **li**; T24: **li**; T743: **a**.

Along with these examples, there are two texts at Tonina (Graham and Mathews 1999: 6:184 and an unpublished drawing by Simon Martin), and yet another one at Santo Ton (Blom and Duby 1957: Fig. 35a) in which the collocation in question is composed in a rather different manner:

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T77:17/575? 1.533v:102 58.503:24? TNA, Collections, Altar 1: G-I<sup>3</sup> TNA, Monument 165: K-L T1?.77:17/575 1.533v.?:? 1.503.58:? STN, Altar 1: A4-5<sup>4</sup>
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Although the general meaning of the expression has been known since the 1960's, the reading and precise meaning of the hieroglyphs that constitute the collocation has been under discussion ever since Proskouriakoff's (1963) seminal work. As regards the first part of the phrase, Barbara MacLeod was the first person to find a substitution for the first sign in the collocation on the Hieroglyphic Stairway at Copan as **k'a-a-yi** (Schele and Looper 1996: 41), leading David Stuart to connect the verb to colonial Tzotzil *ch'ay ik'*, "it diminished/extinguished breath" or "died" (Schele 1991a: 44, Freidel, Schele, and Parker 1993: 440)⁵.

Regarding the second part in the collocation, Schele (1991a: 44) presumed that "it must record the element that is lost in death and one of the things a father transfers to his child" followed by a proposition by Schele (1992: 40) that "the second glyph is sak-niknal, "white-flower"" based on the presumption that "nal is the value of the ik' sign outside the day cartouche" (Schele 1992: 40). In 1996, Schele and Looper (1996: 41) stated that "the verb is k'a'yi u sak niknal, "end or terminate his whitle [sic.] flower". The reading of the T533 "ajaw" sign outside the day sign cartouche as **NIK**, or "flower", was proposed by Nikolai Grube and Werner Nahm in 1990 (Freidel, Schele, and Parker 1993: 440)⁶. Regarding the **IK'** sign, Freidel, Schele, and Parker (1993: 440) conclude that:

Since the ik' sign often has na above it even in the context of the day sign, it occurred to Schele that the second half of the word for soul might simply be -nal, a suffix meaning something like "born of," "one of the quality of," or "one from." Although we are still collecting evidence to test this idea, it looks promising. We think the word for "soul" was "white-flower-thing".

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³ I would like to thank Erik Boot for pointing out this reference to me in 2002.

⁴ I would like to thank Christian Prager for pointing out this example to me in March 2005.

Note that in Schele (1991a: 44) the reference is to Tzeltal rather than to Tzotzil. In the dictionary of modern Tzotzil of San Andrés, Hurley and Ruíz Sánchez (1978) provide a gloss *ch'ayel* with a meaning "perder" ("to lose") and *ta sac-ch'ay* as "se desaparece, desvanece" ("disappears / vanishes / fades away").

⁶ The fact that the Maya day sign *Ajaw* corresponds to Nahuatl *Xochitli*, or "flower" in the Central Mexican calendar, has been considered to reinforce the reading of the **AJAW** sign outside the day sign cartouche as **NIK** or **NICH**, "flower" (Macri 2000: 2).

The *-nal* suffix proposed by Schele (1992: 40) was based on the then apparent substitution **na-li** for the **IK**' sign on the Copan Hieroglyphic Stairway⁷. It is now known, however, that the T23 sign is mere graphic element of the **IK**' sign, without a separate phonetic value (Stuart, Houston, and Robertson 1999: 44).

Presently, the first part of the collocation is somewhat firmly established as k'a'ay / k'a'aay (**K'A'-yi**; **K'A'-a-yi**; **k'a-a-yi**) or k'a'ayiiy (**K'A'-yi-ya**) with the meaning "gets/got wilted/withered/shriveled" (based on the Spanish gloss "marchitarse" of the verbal root k'a' [Terrence Kaufman, personal communication, 2003])⁸. The verb is written in mediopassive voice ($k'a'-ay-\mathcal{O}$; wither-MPAS-3SA) with an occasional temporal deictic enclitic attached to the mediopassive suffix, producing k'a'ayiiy ($k'a'-ay-iiy-\mathcal{O}$; wither-MPAS-3SA-ADV.CLT)⁹. However, the second part of the collocation still eludes proper identification. Although the reading of the final **IK**' constituent is rather secure, the signs between the verb and the **IK**' sign have been under discussion since the collocation was first identified.

When Nikolai Grube and Werner Nahm identified the T533 "ajaw" sign outside the day sign cartouche as **NIK** (Freidel, Schele, and Parker 1993: 440), the reading for the T179 sign (between the possessive pronoun **u** and the **IK**' sign in the collocation under discussion) was identified as a compound glyph composed of T58 **SAK** and T533(v) **NIK**. Schele (1991a: 44) also connected this compound to the T535 "child

One of the drawings from the Copan Hieroglyphic Stairway where the "death phrase" collocation appears, was published by Schele in 1982 (p. 137). In this drawing, the sign underneath the T23 **na** sign appears to be an **IK**' sign rather than the T24 or T82 **li**. In another drawing by Linda Schele (Schele and Looper 1996: 128), the signs are T23 **na** and T82 **li**, respectively (see Table II in this article). If the later drawing of the glyph compound is more accurate than the earlier one, the T23 sign appears to substitute to the T503 **IK**' sign. Also, **na** and **li** would produce a long final vowel – *naal*, rather than –*nal* (Houston, Stuart, and Robertson 1998), a piece of information that was not known at the time when these arguments were pieced together in the early 1990's.

⁸ The verbal root is also preserved in Ch'orti'. Hull (2003: 512-513) provides the following account that deserves to be quoted in full length: "[...] the root k'a' appears as k'a'pa with the mediopassive suffix -pa that usually accompanies verbs of motion (Wichmann 1999:69). This is unquestionably the most common form of this verb in spoken Ch'orti' today. When k'a'pa precedes nominal forms, it always means 'to run out of' something or 'to end'. [...] it is also significant that both Hieroglyphic Ch'olan and Ch'orti' both make use of a form of mediopassive verbal morphology in this context. The verb form k'a'pa is an attested form in Ch'orti' as an expression of death. Note these examples: E chamer ja'x konde ak'a'pa umusik'. "Death is when one's breath runs out" [and] K'a'pa umusik' e ijch'ok umen e purer "The breath of the young woman ran out (i.e. she died) because of the fever". Ch'orti' has not only retained nearly the same metaphorical expression as found in Hieroglyphic Ch'olan, but it also preserves the original phonetic spelling (unlike the Tzoztil [sic.] ch'ay ik'). In Ch'orti', my consultants translate k'a'pa umusik' as either "se acabó su respiración ('one's breath ran out')" or "se acabó su espíritu ('one's spirit expired')." Both translations accord well with our understanding of death in the Classic period in the context of the phrase k'a'aay unik?sak ik'il. In this expression, then, Ch'orti' has preserved semantically, grammatically, and phonetically the forms of this metaphor for death among the ancient Maya."

The class of intransitive verbs with a glyphic <yi> suffix is somewhat problematic and not all scholars identify it as marking a mediopassive voice. Moreover, these verbs have also been (re)analyzed in a manner in which the /i/ of the glyphic <yi> is retained to produce the following morphological analysis: (verbal root)-Vy-i-Ø (Marc Zender, personal communication, March 2005). In the case of the verb under discussion, the morphological analysis would be, accordingly, k'a'-ay-i-Ø, producing k'a'ayi.

of father" glyph, although the two signs are separate in appearance (along with reading and meaning). While the T58 **SAK** element of the compound T179 is rather firmly established, the reading of the T533 "ajaw" sign outside the day cartouche is not. In many cases the sign has a phonetic complement **ki** attached to it, e.g., in the name of a captive (or, more precisely, subject of 'guardianship') in the title of *Itzamnaaj B'ahlam* II in the texts at Yaxchilan, such as the Ballcourt Marker of Structure 14 (at F), the underside and the front edge of Lintel 25 (at F3b and W1b, respectively), Lintel 27 (at H1b), Lintel 46 (at G6), Lintel 56 (at L1b), Stela 11 (at I2b and M4a), Stela 12 (at F4), Stela 18 (at D4), Stela 20 (at C1), and Dos Caobas Stela 1 (at S1b). Additional examples from Tikal exhibit the T533:102 compound as a part of a nominal phrase of objects (Lintel 2: A12, Temple IV), people (Lintel 3: E3b, Temple I; Tikal Bone MT41), and places (Stela 22: A3).

As regards the inventory of different variations of the collocation in question, there appears to be only modest variability in the majority of the cases (with the archetypal form presented in Figure 1):

K'A'-yi u-T179-IK' K'A'-yi u-T179-IK'-li K'A'-a-yi u-T179-IK'-li K'A'-yi-ya u-T179-IK'-li K'A'-yi T179-IK'-li

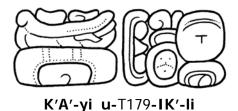
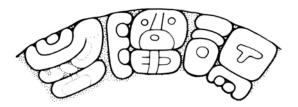


Figure 1: Yaxchilan, Lintel 27: A2-B2 (Drawing by the author based on a drawing and photograph by Ian Graham)

Three examples that stand out in the inventory are the collocations present on Altar 1 (Collections) and Monument 165 at Tonina (see Figure 2 and Figure 3, respectively), and on Altar 1 at Santo Ton (see Figure 4), where the T179 sign is substituted with T533v, **ki**, and **SAK**:



K'A'-yi u-T533v-ki SAK-IK'-li

Figure 2: Tonina (PNK), Collections, Altar 1: G-I (Drawing by Ian Graham in Graham and Mathews 1999: 6:184)



i-k'a-a-yi-ya u-T533v-SAK-li-IK'

Figure 3: Tonina, Monument 165: K-L (Redrawn by the author after an unpublished drawing by Simon Martin)



yi u-T533v-ki?-? u-SAK[IK']-li?

Figure 4: Santo Ton, Altar 1: A4-5 (Drawing by Frans Blom and César Lizardi Ramos in Blom and Duby 1957: Fig. 35a)

Although there are only three such examples in the inventory, these collocations provide the thus far only known examples where the "T179" sign is split up in the "death phrase" context. Consequently, the "T179" sign in all other instances in parallel collocations should be regarded as being composed of two signs, T533v and **SAK**, respectively, with the **SAK** sign modifying the following (**IK**') sign – rather than the T533v sign. The only reasons why this would not be the case are: (1) if all three monuments contain a scribal error at this very position, (2) if the phrase refers to something else than in all other examples, or (3) if the phrase is an idiosyncratic, regional, time-specific, or re-analyzed form of an otherwise differently spelled idiom. Although all of these possibilities seem unlikely¹⁰, it should be noted that the geographic distribution of the collocations where the "T179" sign is split up is rather limited (see Map 2).

Besides the three examples discussed above, there is at least one case that supports the T533v-ki SAK IK' reading, albeit in a different context. On the west side of Bench 1 in the South Room of the South Subterranean Building at the Palace of Palenque (see Figure 5), there is a glyph block that consists of the head variant of the T533v "ajaw" head, and a SAK sign on top (or partly behind) an IK' sign. Stuart (2003) notes that the glyph is "the enigmatic sak ik', "white wind," expression with the pre-posed "ajaw" sign (?-SAK-IK'), that in other contexts is known to refer to the breath and life spirit of rulers and nobles."

It has to be taken into consideration, however, that new, yet to be discovered, examples of this collocation might bring new light to this debate.

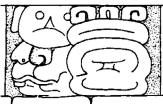


Figure 5: Glyph block C, Bench 1 (west side), South Room, South Subterranean Building, Palace, Palenque (Drawing by Merle Greene Robertson in Robertson 1985: Fig. 423)

If this glyph block is another example where the "T179" sign is split up as T533v (or T533hv in this case) and T58 **SAK** signs, the reading order of the **SAK** and **IK'** signs is reversed in comparison to the reading order of the **SAK** and T533v signs (i.e. "T179") in the "death phrase" collocations. In other words, to substantiate that the **SAK** sign is read last in the compound "T179" sign in the "death phrase" collocations (based on the substitution on the Tonina altar), one needs to agree on the assumption that the T533v sign is placed partially in front of the **SAK** sign (covering the bottom part of it) with the reading order being from front to back, i.e., T533-**SAK** or [T533v]**SAK**, depending on orthographic conventions.

Now, if we turn to the Palenque bench example, we either need to agree that the **IK'** sign is infixed into the **SAK** sign, and the infixed sign is read last. The *prima facie* controversy here is, that to (further) back up the argument of the reading order of one glyph compound, one has to use an example where the reading order of one of the elements appearing in both cases is reversed¹¹. However, based on the Tonina and Santo Ton examples, the reading order is clearly **SAK** first and **IK'** second. Further examples, where the **SAK** sign precedes the **IK'** sign are known from other contexts, such as in the deity name *Sak Ik'* (or *Sakik'*) *Ek'* (see Figure 6).



Figure 6: **SAK IK' EK'** (T58.503v.510v) (Drawing by John Montgomery in Montgomery n.d.)

To go back to the "death phrase" substitutions: if the "T179" is indeed composed of T58 **SAK** and T533v, and if the T533v sign is placed partly in front of the **SAK** sign, the reading order of the glyphs ought to be from front to back. Other known examples of "front to back" reading order are the full-figure variants of the **AJAW** (T168:518b), **NAB**' (T*:522), and **NAL** (T86:851) glyphs that are recurrently exposing only the upper part of the signs, with another glyph being placed partly on top (in front) of them. Yet another sign that commonly only shows the topmost part

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In other words, the Tonina example gives us T533v-ki SAK-IK' whereas the Palenque bench provides a reading T533hv-[IK']SAK or T533hv-SAK[IK'] depending on how one perceives the SAK sign to behave. The contradiction here is that if one were to use the Tonina and Santo Ton examples to prove that the "T179" sign is split up to T533v and SAK, it means that in all other examples of T179, the SAK sign is behind the T533v sign, and it should be, accordingly, read last. However, the contradiction is only a *prima facie* contradiction, as the two examples only have one sign in common. Moreover, there are several examples of infixed signs that are either read first or last in identical contexts (such as the positional suffix *-laj* that can be written as **la[ja]** or **[la]ja**.

of the glyph is the T60v:528 **hi** sign that is frequently suppressed under the T575 **b'a/B'AH** sign. However, there are known examples where the topmost part of the aforementioned glyphs function as separate signs producing the "standard" reading order (top to bottom). This is especially the case of the T168 **AJAW** sign (as in T168:²188 **AJAW-²le**) and the T60v **hi** syllable (as in T60:751a **hi-HIX**).

In the light of the present evidence, the basic form of the collocation can be analyzed as follows (with a reconstructed transcription based on all variations of the collocation [save the Santo Ton Altar 1 example]):

K'A'-a-yi u-[?-ki]SAK-IK'-li

k'a'ay u...k sak $ik'[i]I^{12}$ $k'a'-ay-\emptyset$ u-? sak-ik'-iI wither-MPAS-3SA 3SE-? white-wind-ABSTR? "It got withered, his/her? white wind"

However, the collocation could also be another example of a *difrasismo*¹³ in Maya hieroglyphic writing (a possibility that would clarify the otherwise rather obscure phrase) much alike other difrasismos in the script, such as *uto'ok' upakal* (his/her flint + his/her shield) for "war" (Freidel, Schele, and Parker 1993: 472), "arms and insignia" (Martin and Grube 2000: 45), "army" (Martin 2000: 179), or "military efficacy" (Knowlton 2002: 10), *pohp tzam* (mat + throne) for "rulership" or "authority" (Hull 2003: 414), *ukab' uch'e'en* (his/her land + his/her cave/well) for "city" (Simon Martin, personal communication, 2000), or "residence" (Knowlton 2002: 11) along with *chan ch'e'en* (sky + cave/well) that has similar connotations referring to "key population centers" (Martin 2000: 178) or, conversely, to a more general concept "everywhere", as proposed by Hull (2003: 402)¹⁴. Another candidate

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¹² It should be noted that the word for wind is ik'ar in Ch'orti' and ik'al in Ch'olti' (see Table VI). If the possessed form of the word for wind in Classic Maya does not take a -VI (vowel + I) suffix, the word for wind could, conceivably, be ik'al instead of ik'. However, if the word for wind in Classic Maya takes a -VI suffix when possessed, the word ought to be ik' instead of ik'al, producing ik'-VI. Although not a definite proof $per\ se$ of the quality pertaining to the vowel of the apparent -VI suffix, it should be noted that the word for wind in the collocations under discussion is constantly written with a T24 or T82 II sign when the suffix is present. The vowel has to be, however, reconstructed, as it is not produced by standard spelling rules (Lacadena and Wichmann 2004; Kettunen and Helmke 2004) followed in this article.

Difrasismo is a kind of trope in which a single idea is expressed by pairing two words or metaphors (Garibay K. 1953: 19). The term itself was first employed by Ángel María Garibay K. (Montes de Oca Vega 1997: 31), and later widely used by other Mexican scholars, such as Miguel León-Portilla (1963, 1964, 1969). León-Portilla (1969: 77) provides the following additional description "[...] device used in lyric poetry, as well as in discourses and other forms of composition, consists of uniting two words which also complement each other, either because they are synonyms or because they evoke a third idea, usually a metaphor. This particular stratagem is seldom found in Indo-European languages, but is very common in Mexican indigenous tongues, especially Nahuatl."

Stuart and Houston (1994: 12-13) were the first to identify the locational associations of the last two expressions, although not referring to them as difrasismos or providing a definite reading for them: "The meaning of the sky-bone [chan ch'e'en] glyph remains unknown, but its association with locational glyphs is apparent in inscriptions as well as iconographic contexts" and "Given the grammatical structure, we should expect the bone sign to somehow link the Emblem with the personal name and that the bone should refer to the Emblem [...]. We might speculate that it specifies the location as being the "place" of the named individual [...]. Clearly, in any case the bone sign has suggestive locational associations".

for a difrasismo in Maya hieroglyphic writing is the couplet *waj ha'* (tortilla/bread + water) for "feast" or "meal" (Boot 2005: 3), although the (potentially) intended meaning is less metaphorical than in most cases of couplets that fall into the category of difrasismos. However, it is interesting to note that the metaphorical meaning of the paired words "food" and "water" in the Book of Chilam Balam of Chumayel is "fate" according to Miguel León-Portilla and Earl Shorris (see Hull 2003: 413)¹⁵.

A parallel feature is later found in colonial Nahuatl which employs pairs of nouns such as *in xochitl in cuicatl* (flower + song) for "poetry", *in atl in tepetl* (water + hill) for "town", *in temoxtli in ehecatl* (dust + wind) for "illness, sickness, disease", *in atl in metlatl* (water + *metate*) for "woman", *in cueitl in huipilli* (skirt + shirt) for "woman" (in sexual aspect), *in chalchihuitl in quetzalli* (jade + quetzal [feathers]) for "beauty", and *tlilli tlapalli* (black + red ink) for "writing" or "wisdom", but also pairing verbs as in *tzicuehua tlapani* (to splinter + to break) for "to be born" (Garibay K. 1953: 19; León-Portilla 1963: 102-103; León-Portilla 1964: 83; León-Portilla 1969: 77; Montes de Oca Vega 1997; Knowlton 2002: 9; Jiménez Cataño n.d.). Also, it appears that there are similar structures in the K'iche' epic Popol Vuh (Low 1992: 24-25; Tedlock 1996: 202-205) as well as in modern Ch'orti' (Hull 2003¹⁶). Couplets, difrasismos, or pairings of words like these are actually found in many languages around the world, although they are sometimes difficult to distinguish from compound nouns.

In Maya hieroglyphic writing, the possessive pronoun is commonly marked only with the first noun in difrasismos, although there are several examples where the pronoun, or a fusion (conflation) of a preposition and a pronoun, is assigned to both nouns (see Figure 15). However, although the possessive pronoun does not generally precede the second noun in the texts (except for the Santo Ton Altar 1 example), it was evidently present when pronounced. If this is the case, the death euphemism collocation – or difrasismo – can be analyzed as follows (with a reconstructed transcription based on all variations of the collocation)¹⁷:

K'A'-a-yi u-[?-ki] u-SAK-IK'-li

k'a'ay u...k usak ik'[i]l k'a'-ay-Ø u-? usak-ik'-il wither-MPAS-3SA 3SE-? 3SE-white-wind-ABSTR? "It got withered, his/her ?, his/her white wind"

If this is indeed the case, what gets "withered" (or "wilted / shriveled") in the difrasismo, is a noun ending in /k/ sound, and a composite noun (or a nominal phrase) consisting of the adjective *sak* and the noun *ik*.

For further discussion on the structure of difrasismos in Maya hieroglyphic writing, see Hull (2003). Hull (2003) provides, for example, the following pairs: ok + k'ab' (foot + hand) for "all the body" (as in *ch'a'r takar ujolchan uyok, takar ujolchanir uk'ab'* or "lying there with the infecting heat of his feet, with the infecting heat of his hands") and *mundo* + *syelo* (world + sky) for "everywhere" (as in *ya ch'a'r tama e pwerta mundo, pwerta syelo* or "there they lie in the door of the world, door of the sky"). The latter appears to be very similar to the Classic Maya (u)kab' (u)ch'e'en expression.

Whether the T533v "ajaw" head reads **NIK** (or some other word ending in a /k/ sound), and whether it refers to a flower or not, can be debated.

Besides the general meaning "white" for *sak*, the word has also other connotations and denotations in Maya languages (see Table V), such as "pale", "gray", "whitish", "clear", and "clarified" in Ch'orti' (Wisdom 1949), "clean" (Spanish *limpio*) in Ch'ol (Aulie and Aulie 1978) as well as in Tzotzil (Hurley and Ruíz Sánchez 1978). *Ik'* (see Table VI) is glossed as "air" and "wind" in Ch'orti' (Wisdom 1949), Ch'ol (Aulie and Aulie 1978), Chontal (Knowles 1984), Tzeltal (Ara 1986; Slocum, Gerdel, and Cruz Aguilar 1999), Tzotzil (Hurley and Ruíz Sánchez 1978), Itzaj (Hofling and Tesucún 1997), and Yukatek (Gómez Navarrete 2004), as well as "breeze", and "evil wind" (*aigre*) in Ch'orti' (Wisdom 1949), "breath" (Spanish *aliento*) in Tzotzil (Hurley and Ruíz Sánchez 1978) and Itzaj (Hofling and Tesucún 1997), "endurance" in Itza (Hofling and Tesucún 1997), and "spirit" and "life" (Spanish *espíritu* and *vida*) in Yukatek (Gómez Navarrete 2004, Ciudad Real 1984). Related terms include also *mus-ic* [*musik'*] referring to "soul" (Spanish *alma* and *anima*) in Ch'olti' (Moran 1695).

Consequently, the semantic sphere of the second part of the collocation is in all likelihood a combination of the following words (or glosses)¹⁸:

wind	
white	air
clear	breath
clean	spirit
life	

Besides the "standard" expression, reformulated here as k'a'ay u...k usak ik'il (or k'a'ay u...k usakik'il), there is a phrase on an incised Late Classic travertine bowl (K4692; Kerr n.d.) where the u-"T179"-IK' section of the collocation is followed by a glyph block composed of u, ti, and si. In full, the clause reads¹⁹: 7-"AK'B'AL" 16-CHAK-AT-ta K'A'-yi u-T179-IK' u-ti-si CHAN-na-AK [IX/HIX-WITZ]AJAW-wa b'a-ka-b'a (huk ak'b'al(?) waklaju'n chak[']at k'a'ay u...? ik' utis chan a[h]k(ul)? hi[i]xwitz ajaw b'akab').



Figure 7: Hieroglyphs C4-D6 from K4692 (Drawing by the author based on a photo by Justin Kerr)

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Note that if the collocation is a difrasismo instead of a couplet, the semantic sphere cannot be straightforwardly drawn from the constituents listed here.

The phrase is preceded by another clause, followed by a distance number (2.8.5.5) leading to the last clause (which refers to a point in time before the first clause).

The name of the person whose demise is recorded on K4692 appears to be *Chan Ahk* (or *Ahkul*) from the polity of *Hiix Witz*. The toponym is also mentioned in a series of monuments and artifacts, such as Hieroglyphic Stairway 2, Step V, at Dos Pilas (Guenter 2003: 23), Panel 7 at Piedras Negras (Martin and Grube 2000: 144), Hieroglyphic Stairway 2, Step VIII, and Hieroglyphic Stairway 3, Step V, at Yaxchilan (Lopes and Davletshin 2004), Stela 2 at El Pajaral (Lopes and Davletshin 2004: 4), on a pyrite disc, Burial 13, at Piedras Negras (Martin and Grube 2000: 150), and on a Late Classic Phase 2 Zacatel ceramic group: cream-ground Codex-style cylindrical vase (Kerr n.d. [File No. K1387]). According to David Stuart (Guenter 2003: 24, Lopes and Davletshin 2004: 4), the Emblem Glyph shows up in local contexts at El Pajaral, Zapote Bobal, and La Joyanca (between the San Pedro Mártir and Pasión Rivers in Western Petén), that in all probability embrace the political realm of *Hiix Witz*. This location fits well within the geographic distribution of other sites showing texts with the death euphemism under scrutiny (see Map 2)²⁰.

A related name to the one inscribed on K4692, albeit written with an "antler" glyph as **XUKUB'?-CHAN-na a-ku**, appears next to bound captive inside a ball in a ballgame scene in Hieroglyphic Stairway 2, Step VIII, at Yaxchilan and possibly also in Hieroglyphic Stairway 3, Step V: A2-B2 (Lopes and Davletshin 2004: 4). The date of Hieroglyphic Stairway 2, Step VIII, is recorded as 9 Lamat 16 Ch'en (9.10.3.11.8), and the initial date of Hieroglyphic Stairway 3, Step V, is recorded as 10 Ajaw 13 Mol (9.10.14.13.0). In both cases the protagonist is *Yaxuun B'ahlam* III. Another text incorporating the name *? Chan Ahk* is written on a pyrite disc that was found in Burial 13 at Piedras Negras (Martin and Grube 2000: 150; see Figure 8), and produced in all probability during the life time of Ruler 4 of Piedras Negras (9.13.9.14.15–9.16.6.11.17, or A.D. 701 to 757 [Martin and Grube 2000: 148-150]). Whether the person referred to in K4692 is one or none of the individuals mentioned above, remains to be looked into.



Figure 8: Pyrite disc from Burial 13, Piedras Negras (Drawing by Stephen Houston in Martin and Grube 2000: 150)

As regards the **K'A'-yi u-**T179-**IK' u-ti-si** collocation on K4692, Houston and Taube (2000: 267; referring to David Stuart's analysis of the expression) state that "the phrase *k'a'-ay-i/ u-* 'white flower'- *ik'-u-tis*, 'it finishes, his flower breath, his flatulence', contrasts two body exhalations, one sweet-smelling and oral, the other

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²⁰ The geographic distribution of the sites and the diachronic distribution of the monuments on which the collocation is represented is rather restricted (see Map 1, Map 2, and Table IV).

foul and anal". Although the word *tis* (from Proto-Mayan **kiis* ~ **tziis* ~ **tiis* and Proto-Ch'olan **tiis* [Kaufman and Justeson 2003]) is glossed as "fart" (Spanish *pedo*) in Ch'orti' (Wisdom 1949), Ch'ol (Kaufman and Justeson 2003), Chontal (Keller and Luciano G. 1997), Tzeltal (Kaufman and Justeson 2003), Tzotzil (Kaufman and Justeson 2003), Itzaj (Hofling and Tesucún 1997), and Yukatek (Barrera Vázquez 1980), the word has also other meanings and connotations, such as "juice" (Spanish *zumo*) as in *utis aranxax* ("orange juice" / *zumo de naranja*), in Chontal (Keller and Luciano G. 1997). Also, a cognate of the word, *kis*, is used in the term *kis witz*, or "fog rising from earth" and "rainbow" in Itzaj (Hofling and Tesucún 1997). Consequently, although the etymology and most dictionary entries point to the word "flatulence" or "fart", can we be sure of the meaning, connotations, and associations of the word in the Classic Maya poetic context, as in the phrase on K4692?

Regarding the structure of the collocation on K4692, it is notably similar to (other) difrasismos in Maya hieroglyphic writing and parallel expressions in Nahuatl. However, if this phrase is a difrasismo, it would mean that the **u-**"T179"-**IK**' segment of the collocation should be regarded as one unit, rather than composed of two parts, as in the aforementioned reconstructed **u-? u-SAK-IK**' (*u...k, usakik*') difrasismo. Consequently, if the phrase on K4692 follows the suggested reconstructed composition (based on the Tonina Monument 165, Tonina Collections Altar 1, and Santo Ton Altar 1 examples, where the "T179" sign is split up), it would produce a *trifrasismo*, to coin a term, with an outcome of *k'a'ay u...k usakik' utis*. This would, however, raise new problems with the proper reading of the "T179" sign, i.e., whether it is dividable to T533v "ajaw head", ending in a /k/ sound, and to T58 **SAK** sign, or whether it should be considered as a virtually inseparable fusion of the two signs in question.

As regards the *utis* part of the phrase on K4692, it appears to shatter the otherwise harmonious difrasismo, and raises a question whether the **u-ti-si** glyph block should actually be re-analyzed as belonging to the nominal segment of the clause rather than being part of the death phrase²¹. Other examples of the names of lords from *Hiix Witz* are constantly written with another word preceding the *Chan Ahk(ul)* segment of the name. If this is indeed the case, the analysis of **u-ti-si** as *u-tis* would yield a rather unlikely name, especially if the word *tis* refers to flatulence. Lord "Flatulence-of-the-Sky Turtle" is probably not a very appropriate name for a king (and "Juice-of-the-Sky Turtle" seems unusual as well if the Chontal gloss [see above] is taken into consideration). However, if **u-ti-si** is reanalyzed as *ut-is*, it makes a lot more sense, as *ut* is glossed as "face" and "eye" in Ch'orti' (Wisdom 1949²²) and Ch'olti' (Morán 1695).

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²¹ This possibility was proposed to me by Christophe Helmke in February 2005.

Wisdom (1949) provides the following glosses for the word *ut*: "eye, any small opening or passage, opening of body, piece or bit of, little thing, any round fruit (especially seed, nut or berry); a little, slightly (particularizer and diminutivizer)" and "face, appearance"; *hut*, on the other hand, is glossed as "face of person or animal, front side or surface; facial appearance, manner or expression, appearance; upper side or surface, exposed side or surface, outer side; persons soul, placenta, fetus, abdomen, womb (appears always with possessive u-)"; and *uut* is glossed as "one's face, its front side, one's front".

On Stela 11 (B3 and A4) at Copan we can find the word possessed as **u-UT-tu** (*u-ut*), or "his face", and on the Hieroglyphic Stairway 3, Step 3 (D9), at Yaxchilan, the word is written with an absolutive suffix as **UT-si** (*ut-is*) "face" (Zender 2004: Fig. 8.2). Also, Boot (2002) lists **UT?**, **u-ti**, and **UT?-si** for "face" in his Classic Maya vocabulary, although there is evidence that the word for "face" was written also as **hu**-EYE and EYE-**tu** to produce *hut* (Kaufman and Justeson 2003). If the root *ut* in *utis* is a "face" or "eye", the *-is* could conceivably be a suffix used with unpossessed body parts (as in *ohl* > *ohlis*). How does this work, then, in the nominal context? If *ut* refers to the sky as in "face of the sky" or "eye of the sky", it should be possessed to be grammatically correct. However, there are at least indications of the word *ohlis* being associated with deity names, as in *ohlis* k'uh, and appearing, for example, as a part of the name of a ruler from Oxkintok (Stuart, Houston, and Robertson 1999: 44). However, these examples are rare, and especially in the context of deity names, not well understood.

As regards other names that have *Chan Ahk* as the last part of the name (see Table I), we have *Xukub'(?) Chan Ahk* (Lopes and Davletshin 2004) and *? Chan Ahk* (Martin and Grube 2000: 150), both from Hiix Witz, *Ahiin Chan Ahk* at Pomona (Boot 2002: 17), *Sihyaj Chan Ahk* from Piedras Negras at El Cayo (Martin and Grube 2000: 150), and *Maman Chan Ahk* and *Nasimal Chan Ahk* (Christophe Helmke, personal communication, 2005) at Naj Tunich (Stone 1995: Figs. 8-28, 8-30, and 8-66). However, in lack of other examples with unpossessed (absolutive) body parts forming the first segment in a nominal context, this proposal remains tentative at present. Nevertheless, if the **u-ti-si** part of the phrase on K4692 is indeed part of the nominal segment of the clause, it would support the analysis of the death phrase under discussion as a "frozen" difrasismo, without additional elements attached to it.

Table I: Various names incorporating the nominal segment *Chan Ahk*

Transcription	ո։		Transliteration:	Toponym:	Source:	Reference:
ma-ma-na	CHAN-na	a-ku	Maman Chan A[h]k	To'ok'tuun	Drawing 28: A5-A7 and Drawing 66: E1-F1, Naj Tunich	Stone (1995: Figs. 8-28 and 8-66); MacLeod and Stone (1995: Fig. 7-5)
na-si-ma-la	CHAN	a-ku	Nasimal Chan A[h]k	Toʻok'tuun	Drawing 28: A5-A7, Drawing 30: A1-A3, and Drawing 66: E1-F1, Naj Tunich	Stone (1995: Figs. 8-28, 8-30, and 8-66); MacLeod and Stone (1995: Fig. 7-5)
TAJ	[CHAN]AK	(Taj[al] Chan Ahk	(CNC)	Panel (n.a.): D4, Cancuen	Méndez Zetina (2004: 1)
AHIN	CHAN-na	a-ku	Ahi[i]n Chan A[h]k		?: Pomona	Boot (2002: 17)
SIY/SIH-ya	CHAN-na	a-ku	Sihyaj Chan A[h]k	(PNG)	Altar 4: D1-E1, El Cayo	Martin and Grube (2000: 150)
?	CHAN	a-ku	? Chan A[h]k	Hiix Witz	Pyrite disc from Burial 13, Piedras Negras	Martin and Grube (2000: 150)
"ANTLER"	CHAN-na	a-ku	Xukub'? Chan A[h]k	Hiix Witz	Hieroglyphic Stairway 2, Step VIII: H1-2, Yaxchilan	Graham (1982: 3:162); Lopes and Davletshin (2004: Fig. 5)
xu?[ku]-b'u	CHAN?	AK	Xukub'? Chan A[h]k	Hiix Witz	Hieroglyphic Stairway 3, Step V (Tread): B2a-B2b, Yaxchilan	Graham (1982: 3:171); Lopes and Davletshin (2004: Fig. 14)
u-ti-si	CHAN	AK	Utis Chan A[h]k	Hiix Witz	K4692	Kerr (n.d.)

To go back to the analysis of the "T179" sign: it appears also in other contexts, with and without the **IK**' sign. One example comes from Tonina: hieroglyphs at the position M on Monument 135 (see Figure 9) correspond perfectly to the latter part of the death euphemism collocation under scrutiny, but the preceding glyphs do not. Although Mathews (2001: 5) considers this phrase to be a death expression of an unknown individual, the expected verbal clause at position L has nothing in common with the glyphic components of the "standard" k'a'ay/ k'a'aay verb²³.

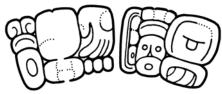


Figure 9: L-M, Monument 135, Tonina (redrawn by the author after a drawing by Ian Graham in Graham and Mathews 1999: 6:161)

Another example of the "T179" sign preceding the **IK**' glyph can be found at D10b on Stela E at Quirigua (see Figure 10) the glyphs form part of the name of the stela itself, with corresponding iconographic elements present in the headdress figures (Schele and Looper 1996: 138; Looper 2003: 147, 151).

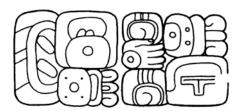


Figure 10: C10-D10, Stela E, Quirigua (Drawing by Matthew Looper in Looper 2003, Fig. 4.38)

Examples of the "T179" sign standing alone can be found both in the writing system and in the iconography: In the Temple of the Foliated Cross Tablet at Palenque (see Figure 11) the "T179" sign appears at C13b in a clause that reads: **u-ti-ya YAX-ha-li wi-tzi-**"T179"-ki [?]NAL-la NAH-?-K'AN-la (or *u[h]tiiy yaxhaal witz "T179"*

²³ Although a highly tentative proposal at present, without supporting evidence from other monuments, this collocation could conceivably refer to birth or to the event during which the ?... sakik'il is "introduced" to a child, rather than a reference to death. The date of the event (in all likelihood 9.15.4.2.5 7 Chikchan 18 Sak) falls during the reign of K'inich Ich'aak Chapaht (Martin and Grube 2000: 186), when the king was approximately 39 years of age. The death date of the following ruler, K'inich Tuun Chapaht, is known (in all probability 9.16.10.16.13 9 Ben 11 Pop [Martin and Grube 2000: 187]), but his birth date is not. Another possibility is that the phrase indeed refers to death, although employing a highly unusual structure. However, if this phrase (SAK-?-?-ye?-ma? u-T179-IK'-Ii), refers to a death of an individual, it cannot refer to any of the Tonina rulers, but, instead, to another, unknown, individual. Conversely, if the phrase refers to an event associated with birth, a fitting candidate would be K'inich Tuun Chapaht. The problem with the phrase is that the glyphs preceding the u-179-IK'-li compound do not seem to feature any standard grammatical affixes that one would expect to be present in a verb. However, the association of the monument with K'inich Tuun Chapaht shows potential as the name written in the caption text behind the figure portrayed on the monument is clearly CHAPAT with a preceding glyph that has a possible outline of a TUN glyph (rather than any other part of a name of known individuals at Tonina incorporating the word CHAPAT).

?...nal na[a]h ? k'anal (k'anal ? / k'an ?...nal). Elements of this clause are also written in the eyes of the foliaceous Witz Monster below the feet of K'inich Kan B'ahlam II on the bottom left corner of the scene portrayed on the tablet, albeit without the "T179" sign. The text on the right eye is written as YAX-ha-li? and the text on the left eye reads wi-tzi-na-la, producing yaxhaal? witznal "green(ing) mountain(place)²⁴.



Figure 11: Temple of the Foliated Cross Tablet: C12-C14, Palenque (Adapted after Robertson 1991: Fig. 153)

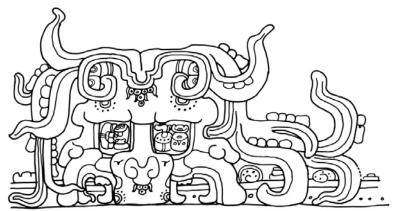


Figure 12: Detail from the Temple of the Foliated Cross Tablet (Drawing by Linda Schele [n.d., No. 185])

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Compare this to the Río Azul toponym *Sakha' Witznal* (Schele 1991b) and to Ucanal toponym (Emblem Glyph) *K'anwitznal*. If the glyph compound on the right eye of the Witz Monster is indeed composed of **YAX**, **ha**, and **li**, the outcome ought to be *yaxhaal*. If the *-haal* part of the compound is a suffix (rather than a separate word), it is somewhat problematical. However, there is a productive suffix, although written as *-jal* rather than *-haal*, discussed by Houston, Stuart, and Robertson (2001: 42): "Second, the *-jal* almost certainly consists of two morphemes. The first is a pan-Mayan particle that communicates changes-in-state. In Ch'orti' *sakah* means "to be pale, blanche, lighten," *yaxah*, "to become clear ...turn green" (Wisdom 1950). The particle *-ah* doubtless descends from the syncopated *-j* attested in Classic Ch'olti'an. The *-al* would simply be the standard, vowel-harmonic suffix. Altogether, then, *chakjalte* would signify the "reddening tree." The *-al* is obligatory because it derives an adjective from *chakaj*."

Other examples of "T179" are found, for example, on a leg of a bench (see Figure 13) and on the lower level of the façade (see Figure 14) of Structure 9N-82 at Copan.



Figure 13: Detail from a leg of a bench in Structure 9N-82, Copan (Drawing by Linda Schele [n.d., No. 4092])

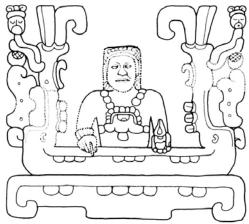


Figure 14: Detail from the lower level of Structure 9N-82, Copan (Drawing by Barbara Fash in Schele and Miller 1986: Fig. III.8)

These examples seem to point to the interpretation that within the "T179" sign, if composed of two hieroglyphs, the **SAK** sign should precede the T533v "ajaw" head. This conclusion appears to be, however, in contradiction to the examples from Tonina (Monument 165 and Collections Altar 1) and Santo Ton (Altar 1), and points to the fact that the inner structure and meaning of the collocation in question still requires further examination. However, as these examples are not hieroglyphs, but, rather, iconographic representations with the appearance of "T179", the examples from Tonina and Santo Ton still provide a compelling substitution for the "T179" sign, and for the whole death phrase to be read as a difrasismo *k'a'ay u...k usakik'il.*

Acknowledgements:

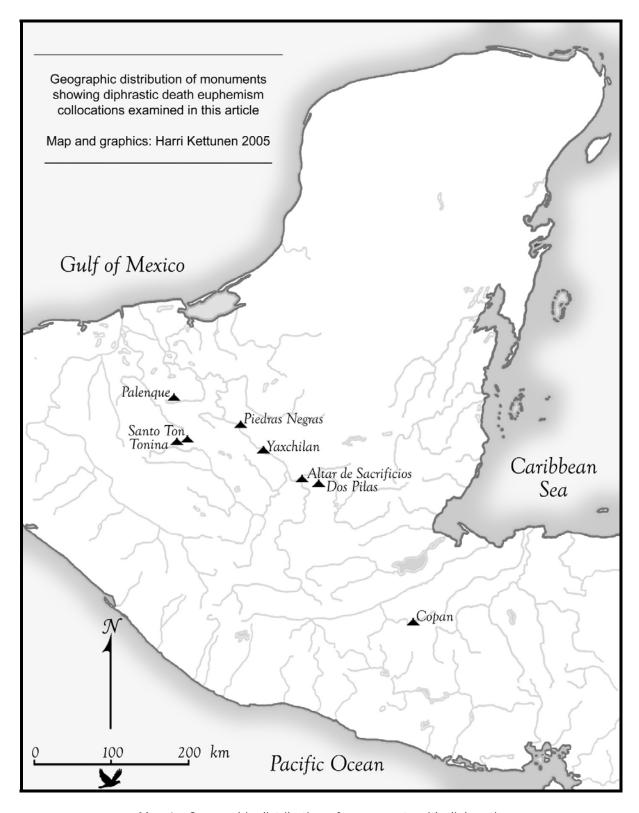
I would like to thank Antti Arppe, Christophe Helmke, Kerry Hull, Christian Prager, and Marc Zender for their insightful comments pertaining to the contents of this article.

Table II: Death euphemisms in Maya hieroglyphic writing (Part I)

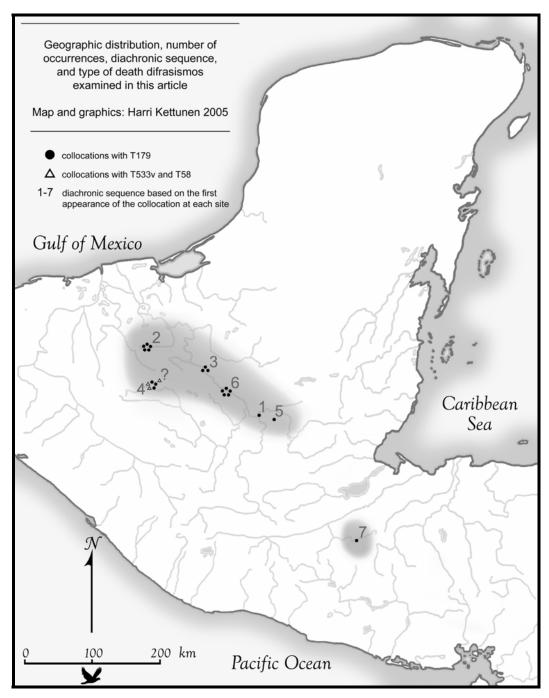
Rendition:	Text:	Transcription:	Transliteration:
	ALS Stela 4: B6-A7 (Drawing by the author based on a rubbing and a photo in Graham 1972: Figs. 11 and 12)	K'A'-yi-ya u-T179-IK'-li	k'a'ayiiy u? ik'[i]l
	CPN Hieroglyphic Stairway (Drawing by Linda Schele in Schele and Looper 1996: 128)		ik'a'ay u? ik'[i]l
	DPL Stela 8: D10 (Adapted after a drawing by Ian Graham in Houston 1993: Fig. 4.14)	K'A'-yi T179-IK'-li	k'a'ay ? ik'[i]l
	PAL Palace Tablet: J10- I11 (Drawing by Merle Greene Robertson in Robertson 1985: Fig. 258)	K'A'-yi-ya u-⊺179- IK'-li	k'a'ayiiy u? ik'[i]l
	PAL Temple of the Inscriptions, West Panel: Q9-R10 (Drawing by Linda Schele in Schele 1982: 135)	i-K'A'-yi u-T179-IK'-li	ik'a'ay u? ik'[i]l
	PAL Temple XVIII Stucco: pC2-pD2 (Drawing by Linda Schele in Schele 1982: 136)	i-K'A'-yi u-T179-IK'-li	ik'a'ay u? ik'[i]l
	PAL Palace, House C, Eave: I1 (Drawing by Linda Schele in Schele 1982: 137)	T179 -IK'	? ik'
	PAL Tablet of the Cross: Incensario Stand: H7-G8 (Drawing by Linda Schele in Schele and Mathews 1979: Cat. No. 281)	K'A'-yi u-T179-IK'-li	k'a'ay u? ik'[i]l
	PNG Lintel 3: U2-V2 (Drawing by John Montgomery in Montgomery n.d.)	K'A'-yi ?	k'a'ay?
	PNG Stela 7: C3 (Drawing by David Stuart in Stuart and Graham 2003: 9:41)	K'A'?-yi-ya u-T179?-IK'?	k'a'ayiiy? u? ik'?
	PNG Stela 8: A23 (Modified after a drawing by David Stuart in Stuart and Graham 2003: 9:46)	K'A'?-yi? u-T179?-IK'-li?	k'a'ay? u? ik'[i]l
	STN Altar 1: A4-5 (After Blom and Duby 1957: Fig. 35a)	?-K'A'-yi u-T533v-ki?-? u-SAK[IK']-li?	?k'a'ay u? usak ik'[i]l?

Table III: Death euphemisms in Maya hieroglyphic writing (Part II)

Rendition:	Text:	Transcription:	Transliteration:
	TNA Mon. 69: D1 (Drawing by Linda Schele in Schele 1982: 137)	K'A'-yi-u-T179-IK'-li	k'a'ay u? ik'[i]l
	TNA Mon. 77: pA-pC (Drawing by Peter Mathews in Graham and Mathews 1996: 6:110)	K'A'-a-yi u-T179 -IK'-li	k'a'ay u? ik'il?
	TNA Mon. 144: D-E (Drawing by John Montgomery in Montgomery 1998)	i-K'A'-yi? u-T179-IK'-li	ik'a'ay u? ik'[i]I
	TNA Mon. 165: K-L (Redrawn after a drawing by Simon Martin)	i-k'a-a-yi-ya u-T533v- SAK-li-IK'	k'a'ayiiy uk sak ik'[i]l?
	PNK (TNA) Collections, Altar 1 (a.k.a. MNAH Disk, T-49, Altar 8): G-I (Drawing by Ian Graham in Graham and Mathews 1999: 6:184)	K'A'-yi u-T533v-ki SAK-IK'-li?	k'a'ay uk sak ik'[i]l?
	YAX Lnt. 27: F2 (Drawing by the author based on a drawing and photograph by Ian Graham)	K'A'-yi u- T179- IK '	k'a'ay u? ik'
	YAX Lnt. 27: A2-B2 (Drawing by the author based on a drawing and photograph by Ian Graham)	K'A'-yi u- T179- IK'-li	k'a'ay u? ik'[i]I
ALA	YAX Lnt. 28: S1b-T1 (Adapted after a drawing by Ian Graham in Graham and von Euw 1977: 3:61)	K'A'?-yi u- T179- IK'-li	(k'a'a)y u? ik'[i]I
	YAX Lnt. 59: L1-M1 (Adapted after a drawing by Ian Graham in Graham 1982: 3:131)	K'A'-yi u-T179-IK'-(li)	k'a'ay u? ik'il?
	YAX St.12: A2-B2 (Drawing by Linda Schele in Tate 1992: Fig. 137a)	K'A'-yi u- T179- IK'-li	k'a'ay u? ik'[i]l
	PNK (K4692) (Drawing by the author based on a photo by Justin Kerr)	K'A'-yi u-T179-IK' u-ti-si	k'a'ay u? ik' utis



Map 1: Geographic distribution of monuments with diphrastic death euphemism collocations examined in this article



Map 2: Geographic distribution, number of occurrences, diachronic sequence, and type of diphrastic death euphemism examined in this article

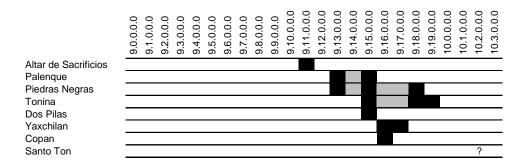


Table IV: Diachronic distribution of death difrasismos in the inscriptions

Table V: Dictionary entries associated with <SAK>

Language / entry:	Gloss:	Reference:
Proto-Mayan		
*saq	blanco / white	Kaufman and Justeson 2003
Ch'orti'		
sak	pale, gray, whitish, clear, clarified	Wisdom 1949
saksak	white, light-gray, belached, faded	Wisdom 1949
sak nichir	flor blanca (a wild lowland tree with white odorous flowers used for decorating crosses)	Wisdom 1949
Ch'olti'	,	
sak	blanco / white	Morán 1695
sak	medisina / medicine	Morán 1695
sak	aspero, medicina / rough, harsh, medicine	Morán 1695
Ch'ol		
säk	limpio	Aulie and Aulie 1978
säsäk	blanco	Aulie and Aulie 1978
Chontal		
säk	white	Knowles 1984, Keller
Tzeltal		and Luciano G. 1997
sak	blanco	Slocum, Gerdel, and
		Cruz Aguilar 1999
sakal	blanco	Slocum, Gerdel, and
		Cruz Aguilar 1999
Tzotzil		
sak	blanco, limpio, claro	Hurley and Ruíz Sánchez 1978
Itza'		
säk	blanco / white	Hofling and Tesucún 1997
Yukatek	blanca	Cámar Navarrata 2004
sak	blanco	Gómez Navarrete 2004
sasak saknikte′	blanco	Gómez Navarrete 2004 Gómez Navarrete 2004
Sakilikte	flor de mayo (<i>plumeria alba</i>)	GUITIEZ INAVAITELE 2004

Table VI: Dictionary entries associated with < IK'>

Language / entry:		Gloss:	Reference:	
Proto-N	Mavan			
	*′i′q′	viento / wind	Kaufman and Justeson 2003	
Proto-C	•			
11010	*'ik'	air, wind	Kaufman and Justeson 2003	
Ch'orti'		an, wind	Radiman and Justeson 2005	
CITOILI	ik'	air, atmosphere [used only in	Wisdom 1949	
	IK	compounds]	WISCOIII 1747	
	ik'ar	wind, breeze, evil wind (aigre)	Wisdom 1949	
	ayan umusik'	have breath, be alive	Wisdom 1949	
	ah yum ik'ar	wind gods	Wisdom 1949	
	ch'i'ih chan ik'ar	storm, hurricane (said to be caused by the passing of a chicchan)	Wisdom 1949	
01 . 111.		,		
Ch'olti'	ycal [ik'al]	aire / air	Morán 1695	
	mus-ic [musik']	alma, ánima / soul, spirit	Morán 1695	
Ch'ol	mas ic [masik]	airia, ariiria / 30ai, 3pii t	Wordti 1073	
CITOI	ik'	aire, viento	Aulie and Aulie 1978	
Chonta	ıl			
	ik′	wind, air	Knowles 1984	
Tzeltal				
	ik'	viento	Slocum, Gerdel, and Cruz Aguilar 1999	
Tzeltal	(colonial)		G	
	yhc [ik']	viento	Ara 1986	
	yhc [ik']	aire	Ara 1986	
Tzotzil	J []			
LOTE	ik′	aire, viento, aliento, reuma	Hurley and Ruíz Sánchez 1978	
Itza′	IIX	and, viento, anento, reama	Truncy and Ruiz Sanchez 1770	
πΖα	ik′	viento / wind	Hofling and Tesucún 1997	
	ik'			
	IK	viento, aire, respiración, resistencia / wind, air, breath, endurance	Hofling and Tesucún 1997	
	ik'al	viento / wind	Hofling and Tesucún 1997	
	ik'il	viento de / wind of	Hofling and Tesucún 1997	
Yukate		The same of	g and resuden 1777	
i unate	iik'	viento	Gómez Navarrete 2004	
	iik'	aire		
			Gómez Navarrete 2004	
	iik'	espíritu	Gómez Navarrete 2004	
	iik', múusik'	aliento	Gómez Navarrete 2004	
	iik', kuxtal	vida _.	Gómez Navarrete 2004	
	ch'a'iik'	respirar	Gómez Navarrete 2004	
Yukate	k (colonial)			
	ik [iik']	aire, viento	Ciudad Real 1984	
	ik [iik']	el espíritu, vida, aliento	Ciudad Real 1984	
	ikal [iik'al]	e]spíritu	Ciudad Real 1984	

Table VII: Dictionary entries associated with <NIK>

Language / entry:		Gloss:	Reference:
Greater Tzeltalan – Greater			
Q'anjob	o'alan – Yukatekan –		
Ch'olan			
	*nik	flor / flower	Kaufman and Justeson 2003
Ch'orti'			
	nich	flower (seldom used except with suffix –ir)	Wisdom 1949
	nichir	flower(s), inflorescence of a plant, any flowering plant	Wisdom 1949
	sak nichir	flor blanca (wild tree)	Wisdom 1949
	war a ch'ahnah	its flower(s) is growing out	Wisdom 1949
unichir Ch'olti'			
	nich	flor / flower	Morán 1695
Ch'ol			
	nichim	flor, vela	Aulie and Aulie 1978
Chonta			
-	nich	flower, blossom	Knowles 1984
Tzeltal	nichim	flor	Slocum, Gerdel, and Cruz Aguilar 1999
Tzotzil			
	nichim	flor	Hurley and Ruíz Sánchez 1978
Itza′	nik-te′	flor de mayo / frangipani (<i>Plumeria spp.</i>)	Hofling and Tesucún 1997
	ajsäk nik-te [,]	flor de mayo blanca / white frangipani (<i>Plumeria acutifolia</i>)	Hofling and Tesucún 1997
Yukate	k	,	
	nik	flor	Barrera Vásquez 1980
	nikte'	flor	Gómez Navarrete 2004
	saknikte'	flor de mayo (<i>Plumeria alba</i>)	Gómez Navarrete 2004
Yukate	k (colonial)		
	nik	flor, rosa	Ciudad Real 1984

Table VIII: Dictionary entries associated with <ti-si>

Language / entry:	Gloss:	Reference:
Proto-Mayan		
*kiis ~ *tziis ~ *tiis	pedo / fart	Kaufman and Justeson 2003
Proto-Ch'olan		
*tiis	pedo / fart	Kaufman and Justeson 2003
Ch'orti'		
tis	intestinal gas	Wisdom 1949
ut utis	emission of gas	Wisdom 1949
tis	pedo, ventoso	Kaufman and Justeson 2003
Ch'ol		
tis	pedo	Kaufman and Justeson 2003
Chontal		
tis	pedo, gas, flatulencia del estómago	Keller and Luciano G. 1997
tis	zumo	Keller and Luciano G. 1997
u pase u tis	se sale zumo	Keller and Luciano G. 1997
tis	rabadilla (de aves)	Keller and Luciano G. 1997
Tzeltal		
tzis	pedo	Kaufman and Justeson 2003
Tzotzil		
tzis	pedo	Kaufman and Justeson 2003
Itza′		
kis	pedo / fart	Hofling and Tesucún 1997
kis witz	vapor de la tierra, arco iris /	Hofling and Tesucún 1997
	fog rising from earth, rainbow	
Yukatek		
kis	pedo, expulsión por el ano	Barrera Vásquez 1980
	del gas de las vías digestivas	



a. Yaxchilan, Lintel 46: F8 (Adapted after Graham 1979: 3:101)



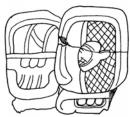
b. Yaxchilan, Lintel 45: C6 (Modified after Graham 1979: 3:99)



c. Yaxchilan, Lintel 25: C1 (Adapted after a drawing by Ian Graham in Graham and von Euw 1977: 3:55)



d. Yaxchilan, Hieroglyphic Stairway 3, Step I: D8 (Adapted after Graham 1982: 3:166)



e. Palenque, North Group, Temple III (Drawing by Linda Schele in Schele and Mathews 1979: Cat. 576)



f. Palenque, Temple of the Foliated Cross Tablet: L15 (After Stuart and Houston 1994: Fig. 9c)



g. Tikal, Stela 31: H23 (Modified after a drawing by William R. Coe in Jones and Satterthwaite 1982: Fig. 51c)



h. Palenque, Temple of the Foliated Cross, Alfarda: L2b (After Stuart and Houston 1994: Fig. 9d)



 i. Yaxchilan, Lintel 25 (front edge): V1 (Modified after a drawing by Ian Graham in Graham and von Euw 1977: 3:56)



j. Yaxchilan, Lintel 26 (front edge): N1 (Adapted after a drawing by Ian Graham in Graham and von Euw 1977: 3:58)



k. Bonampak, Sculptured Stone: D2a (Modified after Schele and Miller 1986: Fig. II.8)



I. Tonina, Monument 83: D2 (Adapted after a drawing by Ian Graham in Graham and Mathews 1996: 6:113)

Figure 15: Known difrasismos in Maya hieroglyphic writing

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