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### Report 3

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## T683a and T683b: Two words for "twenty"

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Thompson (1962) identified T683a and T683b (fig. 1) as variants of the moon glyph. It later became clear to epigraphers that T683a, the sign with one circle, signifies the number 20, and that T683b, the sign with three circles, equivalent to T181, signifies the syllable **aj**. A simplified form of this sign appears in Landa's account (Tozzer 1941:170) in the glyphic transcription of the pronunciation of the Spanish letters used to spell the Maya word *ha* 'water' /'ache 'a/. The presence of T683b in numerical phrases in the Tablet of the Slaves at Palenque and on Stela 5 at Pixoy has required the hedge that sometimes T683b is also 'twenty'. However, on closer examination it is clear that the two glyphs are not in free variation. It is now possible, based on phonetic complements and on an examination of number systems in Mayan languages, to assign distinct logographic readings to T683a and T683b in those cases in which T683b is used numerically.

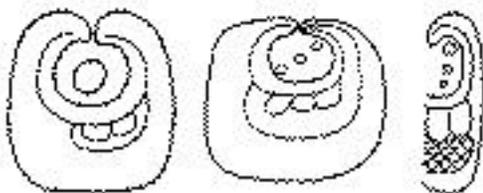


Figure 1. T683a, T683b/T181 (drawings by Matthew Loooper)

Several Mayan languages use one word for 'twenty' and another word when counting multiples of twenty. Judging from

glyphic inscriptions, this may have been the case for much of the Classic Maya lowlands. A T102 **ki** phonetic complement commonly suffixed to T683a, suggests a word ending in *ki* or *ik*. The word *winik* from proto Mayan \*winaq 'man; person' is commonly used for twenty, but usually with the number one prefixed. In Lakandon 'twenty' is *huntul winik* 'one man' (Bruce 1968:70).

Currently in most Ch'olan and Yukatekan languages only Spanish words used for numbers higher than three or four. Earlier records show that *k'al* was 'twenty' in both Ch'olan and Yukatekan languages. Some K'iche'an languages use *winaq* up to 'thirty nine' and *k'al* for numbers above forty. The monumental inscriptions reflect a system of counting in which one word, *jun winik* or *juntul winik* was used for 'twenty' and another word, *k'al* was used when indicating multiples of twenty.

T683a is 'twenty' when it appears as Glyph A of the lunar series with either 'nine' or 'ten', signally the current lunation as having either 29 or 30 days, it often has a **ki** complement, and was probably read *jun winik* (fig. 2) (see related discussion in Bricker 1986:100f). However, when T683b appears in the Table of the Slaves, it is not for 'twenty', but for multiples of twenty, and was read *k'al* (fig. 3).



Figure 2. Glyph A (SBL Tab.1 F2 (drawing after Ian Graham CMHI 7:1:57 (Graham1996))



Figure 3. Tablet of the Slaves A2, B3, A3 (Rubbing (c) Merle Greene Robertson 1997)

**3 te K'AL u CHUM mu TUN ni**

*oxte k'al uchum tun*

3 were his (Pakal's) k'atun seatings

PAL Tablet of the Slaves A2

**1 te K'AL u CHUM TUN ni KAN B'ALAM**

*junte k'al uchum tun kan b'alam*

1 was the k'atun seating of Kan B'alam

PAL Tablet of the Slaves B2

**1 te K'AL u CHUM TUN ni K'AN JOK' CHITAM**

*junte k'al uchum tun k'an jok' chitam*

1 was the k'atun seating of K'an Jok' Chitam

PAL Tablet of the Slaves A3

Further support for this hypothesis comes from the site of Pixoy, located near Bolonchen, Campeche. Stela 5 has an unusual initial series date that employs both T683a and T683b with contrasting meanings (fig. 4). The b'ak'tun coefficient is 9, the k'atun coefficient is 13, the tun is prefixed by T683a, and the winal and k'in signs are prefixed by T683b. The calendar round is 6 Ajaw 13 Muwan, the month sign being eroded. The long count for this calendar round is the period ending 9.14.0.0.0. If each example of T683 signifies 'twenty' the long count would add up to a date beyond 9.14.0.0.0, and, more importantly, would be seriously flawed in having a coefficient beyond 18 for the count of winals. If each example of T683 signified 'zero' the long count date would be 9.13.0.0.0, and would not match the calendar round of 6 Ajaw 13 Muwan.

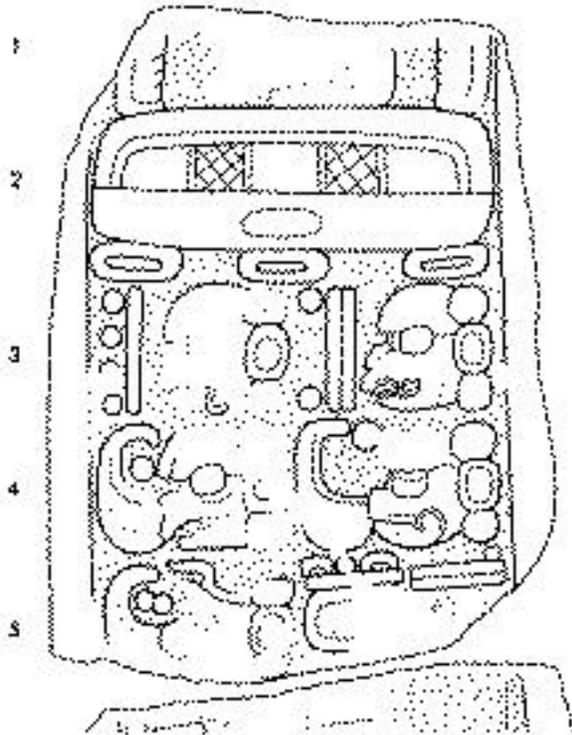


Figure 4. Pixoy St. 5 A1-B5 (drawing by Eric von Euw CMHI4.1:15 (von Euw1977))

This seeming anomaly can be explained if it is understood that the two prefixed signs, T683a and T683b have distinct meanings. T683a is 'twenty' *jun winik*. Prefixed to the tun glyph it signifies the twenty tuns that must be added to the k'atun number of 13 to reach 9.14.0.0.0. T683b is the logograph **K'AL**, here used with the k'in and winal signs, not to represent 'twenty', but to represent the Yucatekan word *k'al* 'close' (Barrera Vásquez 1980: 367f, Hofling 1997:374), signifying the closure of the counts of winals and k'ins. The use of T683b for 'close' confirms that its logographic value is **K'AL**.

References:

Barrera Vásquez, Editor

1980 *Diccionario Maya Cordemex*. Mérida, Yucatan, México: Ediciones Cordemex.

Bricker, Victoria R.

1986 *A Grammar of Mayan Hieroglyphs*. Middle American Research Institute Publication 56. New Orleans: Middle American Research Institute, Tulane University.

Bruce S., Robert D.

1968 *Gramática del Lacandón*. México: Instituto Nacional de Antropología e Historia, .

Graham, Ian

1996 *Corpus of Maya Hieroglyphic Inscriptions, Vol. 7, Pt. 1: Seibal*. Peabody Museum of American Archaeology and Ethnology, Harvard University, Cambridge, Massachusetts.

Greene Robertson, Merle

1995 *Rubbings of Maya Sculpture. CD-ROM Vol. IX, Palenque*. San Francisco: Pre-Columbian Art Research Institute.

Hofling, Charles Andrew with Félix Fernando Tesucún

1997 *Itzaj Maya-Spanish-English Dictionary*. Salt Lake City: University of Utah Press.

Thompson, J. Eric S.

1962 *A Catalog of Maya Hieroglyphs*. Norman: University of Oklahoma Press.

Tozzer, Alfred M., Editor

1941 *Landa's Relación de las Cosas de Yucatan: A Translation*. Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University, Vol. XVIII. Cambridge, Massachusetts.

von Euw, Eric

1977 *Corpus of Maya Hieroglyphic Inscriptions, Vol. 4, Pt. 1: Itzimte, Pixoy, Tzum*. Peabody Museum of American Archaeology and Ethnology, Harvard University, Cambridge, Massachusetts.