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# FIRE RITUALS AT CHICHÉN ITZÁ: THE CASA COLORADA INSCRIPTION

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**Resumen:** *Este artículo representa un análisis hermenéutico de escogidos textos jeroglíficos del llamado “Periodo Clásico” de la cultura maya (aprox. 250 hasta 850 d.C.) y su subsiguiente síntesis bajo los puntos de vista de la ciencia de las religiones. Por ende, la meta de este trabajo es contribuir a un mejor conocimiento de aquel componente de la cultura de los antiguos mayas que en el mundo occidental actual se clasifica como “religión”. Este elemento cultural constituía un aspecto de altísima importancia de la civilización maya.*

**Palabras clave:** *Civilización maya, cultura maya prehispánica, Periodo Clásico, religión, texto jeroglífico*

## INTRODUCTION

Fire rituals that involve the “drilling” or “throwing” of fire rank among the common rituals in Maya inscriptions. They were important means to establish contact with supernaturals (Houston & Stuart 1996: 299), particularly various aspects of the deity K’awil which were venerated during the ceremonies of the 819-day cycle. A drilling of fire on a panel that supposedly comes from Laxtunich near Yaxchilan (Mayer 1995: pl. 265) commemorates a dead ancestor.

Glyphic texts record fire rituals mostly as part of the 819-day cycle (Grube 2000). The standardized format of this ritual cycle presents the fire rituals in an abbreviated manner that impedes detailed understanding.

Terminal Classic inscriptions at Chichén Itzá are among the few that mention fire rituals outside of the 819-day cycle and that provide more information about the actors, the deities, and the kind of fire ritual. Of particular importance are the fire rituals in the text from the Casa Colorada.



Photo: The Casa Colorada (Structure 3C9) at Chichén Itzá

Photo of Markus Eberl

This paper reanalyzes the chronological information of the Casa Colorada text and shows that the inscription contains four dates. The phrases and events tied to the individual dates highlight the main rites during a ceremonial cycle of 822 days.

## THE CASA COLORADA INSCRIPTION

The Casa Colorada (Structure 3C9 or “the Red House”; photo) near the Caracol has

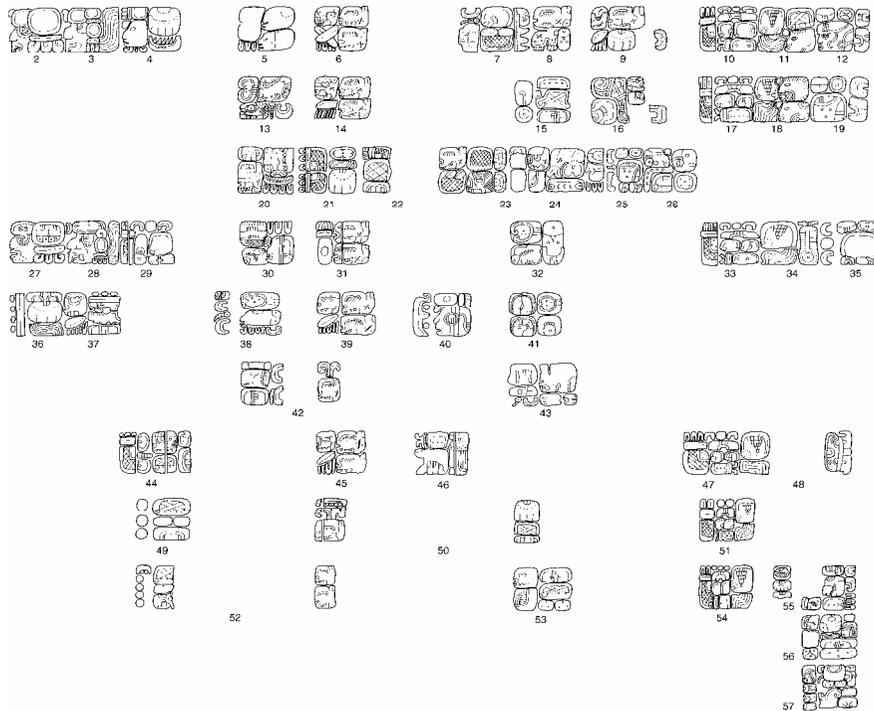


Fig. 1: Structural analysis of the Casa Colorada inscription  
 Drawing by Alexander Voss

one of the longest glyphic texts at Chichén Itzá. The frieze on the eastern vault spring of the entrance room is engraved with a single row of 57 glyph blocks. The inscription is very well preserved. Figure 1 presents the inscription segmented into its phrases; the numbering of the text starts with “2” since the first glyph block remained blank.

Thomas Barthel was the first to recognize the drilling of fire as the inscription’s main topic. He correlated the depiction of fire drilling gods in the Codices (Dresden Codex, pages 5 and 6, and Codex Madrid, page 38; fig. 2) with the short captions above them (Barthel 1955:13–14). He was then able to identify the drilling of fire glyphs in the purely glyphic Casa Colorada text. David Kelley substantiated Barthel’s suggestion by deciphering the glyphic expression for fire, k’ak’ (Kelley 1968b).

## NEW LIGHT ON THE CHRONOLOGY

The Casa Colorada inscription is structured by Short Counts and a separate count of fire rituals. The Short Count is a characteristically Northern Lowlands way to place specific dates within an absolute time (Thompson 1937; 1950: 197–204). It has three elements: Calendar Round date, Tun, and Katun Ahaw date, that is, the Ahaw date of the last day of a Katun, and in general has the following form: [Tzolk’in] k’in [Haab] tu or til [Tun] ta [Katun Ahaw]. Prepositions (ta, tu for ti u, and til) introduce various elements of the Short Count but they were not obligatory. The Tun-statement includes at Chichén Itzá often the numeral classifier pis which counts days, years and Spanish reales (Thompson 1950: 54–55). Pis appears several times in the Casa Colorada inscription (glyphs 10, 17, 33, 47, 51, and 54).

Lintel 4 of Chichén Itzá's Temple of the Four Lintels begins for example with the Short Count 9 Lamat k'in tu 13 Yax til 13 Tun 1 Ahaw or "day 9 Lamat 13 Yax in the 13th Tun of Katun 1 Ahaw". Three Katuns ended with 1 Ahaw during the Classic period (8.17.0.0.0, 9.10.0.0.0, and 10.3.0.0.0). The combination of the Calendar Round date 9 Lamat 13 Yax in a 13th Tun of a Katun 1 Ahaw repeats itself only every 18,720 years. F within the historical framework of Maya culture, the Short Count corresponds to the Long Count 10.2.12.1.8 9 Lamat 13 Yax or July 9, A.D. 881 in the Julian Calendar (GMT-L correlation with the numerical constant 584285; Lounsbury 1992).



Fig. 2: Fire drilling rituals in Maya Codices. (a) Codex Dresden page 6  
Drawing by Markus Eberl after Lee 1985

The Casa Colorada inscription separates the three elements of the Short Count and presents the Calendar Round date at the beginning of a sentence and the Tun and Katun Ahaw at the end (glyph blocks 2-4 and 10-12 and 27-29 and 33-35). Several times dates are reduced to Tun and Katun Ahaw (glyph blocks 17-19) or simply Tun (glyph blocks 47, 51, 54).

The first phrase begins with the Short Count (subscripts denote glyph blocks)  $_2$  6 Muluk  $_3$  k'in  $_4$  12 Mak ...  $_{10}$  tu 1 pis 11 Tun ta 1  $_{12}$  Ahaw "On the day 6 Muluk 12 Mak ... in the first year of [Katun] 1 Ahaw" which corresponds to 10.2.0.1.9 6 Muluk 12 Mak or September 11, A.D. 869. The second Short Count (glyph blocks 27-29 and 33-35) dates to 10.2.0.15.3 7 Ak'bal 1 Ch'en or June 12, A.D. 870.

The remaining Tun-Katun Ahaw and Tun dates are too abbreviated to be placed in absolute time. One needs to consider their context. The position of the Tun-Katun Ahaw date in glyph blocks 17-19 at the end of a sentence that forms part of the September 11, A.D. 869 fire rituals suggests that it refers to the same date. The second half of the text links Tun dates to the count of fire rituals. The text mentions  $_{44}$  tu ka talal  $_{45}$  u k'ak' "the second coming of the fire"  $_{47}$  tu 1 pis  $_{48}$  Tun "within the first Tun",  $_{49}$  3 talal  $_{50}$  u k'ak' "the third coming of the fire"  $_{51}$  tu 2 pis Tun "within the second Tun" and then  $_{52}$  u 4 talal k'ak' "the fourth coming of fire"  $_{54}$  tu 3 pis Tun "in the third Tun". Tal refers in Classic inscriptions (table 1) to the coming of period endings, particularly Katun endings. It appears most famously in the tablets of Palenque's Temple of Inscriptions where it introduces the first, second, and third coming of the "seating of the Katun" under K'inich Hanab Pakal. In this context, tal refers not only to the period ending but also to the rituals that were repeated every Katun. This helps to understand the Casa Colorada text which is the only known inscription in which tal "coming" is not associated with a period ending. The clue to the internal structure of the Casa Colorada inscription lies in the distance between the first and second Short Count. 274 days or 13.14 (shorthand for 13 Winal and 14 K'in) separate 10.2.0.1.9 from 10.2.0.15.3. A personal inspection of the inscription by the junior author revealed that glyphs 36 and 37 – glyph blocks between the second Short Count and the third coming of fire – read /14-u-ba-ni/ 14 u ban (XIV.T1: 501:116) /u-13-wi-ni-ki/ u 13 winik (T232. XIII: 236var:116:102).<sup>2</sup> Glyphs 36 and 37 are very likely a reversed distance number 13.14 which correspond to 274 days. The substitution of ban for k'in (which is expected in a distance number) may find its explanation in the Motul dictionary where ban is enlisted as numeral classifier (ban counts a "montón de cosas menudas como sal, tierra, maíz, y aun de leña y maderos;" Ciudad Real 1984: f.48r). The distance number in

Table 1: *Tal* “coming” counts in Classic Maya inscriptions

<i>Inscription</i>	<i>Date</i>	<i>Content</i>
Tortuguero Stela 1 (glyphs A1-A3)	9.10.13.0.0 1 Ahaw 3 K'ank'in (Nov. 17, A.D. 645)	“the first coming of the Tun-knotting”
Palenque Tablets of the Temple of Inscriptions (East Tablet glyphs R12-T12 and Center Tablet glyphs A1-N12)	9.10.0.0.0 1 Ahaw 8 K'ayab (Jan. 27, A.D. 633); 9.11.0.0.0 12 Ahaw 8 Keh (Oct. 11, A.D. 652); 9.12.0.0.0 10 Ahaw 8 Yaxk'in (June 28, A.D. 672)	First, second, and third coming of the seating of a Katun; accompanied by elaborate rituals that involve the clothing of deity statues
Palenque Temple of the Cross incense burner (glyphs D7-D9)	9.11.13.0.0 12 Ahaw 3 Ch'en (August 4, A.D. 665)	?
Seibal Stela 10 (glyphs B1-A3)	10.1.0.0.0 5 Ahaw 3 K'ayab (Nov. 26, A.D. 849)	“the coming of the first Katun” (in Baktun 10)
Seibal Stela 11 (glyphs G1-G2)	10.1.0.0.0 5 Ahaw 3 K'ayab (Nov. 26, A.D. 849)	“the coming of the first Katun” (in Baktun 10)
Chichén Itzá Casa Colorada text (glyphs 44, 49, 52)	10.2.1.10.17 8 Kaban 18 Sotz' (March 13, A.D. 871) and 10.2.2.6.11 9 Chuen 4 Kumk'u (Dec. 12, A.D. 871)	<i>see text</i>

glyphs 36-37 parallels the distance between the first two Short Counts and advises the reader to add 274 days to the second Short Count to arrive at the date of the third coming of fire.

The complete chronological order of the Casa Colorada inscription then unfolds elegantly. The third coming of fire (glyph blocks 49–50) took place *tu ka pis Tun* “within the second Tun” (glyph block 51). If 274 days are added to the second Short Count one arrives at 10.2.1.10.17 8 Kaban 18 Sotz' (March 13, A.D. 871) which is, unmistakably, in the second Tun of Katun 1 Ahaw. The fourth coming of fire took place *tu 3 pis Tun* “in the third Tun” (glyph block 54). Adding another 274 days leads to 10.2.2.6.11.9 Chuen 4 Kumk'u (December 12, A.D. 871) when the fourth and final coming of fire likely happened.

The chronology of the Casa Colorada inscription can thus be summarized (square brackets indicate reconstructed elements):

- 10.2.0.1.9 6 Muluk 12 Mak (09/11/869) ...*tu 1 pis Tun ta 1 Ahaw* + [13.14]
- 10.2.0.15.3 7 Ak'bal 1 Ch'en (06/12/870) ...*tu 1 pis Tun ta 1 Ahaw* + 13.14
- 10.2.1.10.17 [8 Kaban 18 Sotz'] (03/13/871) ...*3 talal ...tu 2 pis Tun* + [13.14]

- 10.2.2.6.11 [9 Chuen 4 Kumk'u] (12/12/871) ...*u 4 talal ...tu 3 pis Tun*

A complication which interrupts the well-ordered sequence of dates lurks in the glyph blocks 45-48 and is inserted in the rituals conducted during the third coming of the fire. The glyphs presumably read <sup>44</sup> *tu ka talal* <sup>45</sup> *u k'ak'* <sup>46</sup> *siye-a* <sup>47</sup> *tu 1 pis* <sup>48</sup> *Tun natz* “within the second coming the fire which was born in the first year extinguishes”.<sup>3</sup> The *tu 1 pis Tun* does not date the events surrounding it but reflects the rituals which did take place in the ‘first year’ (i.e. the ceremonies on 10.2.0.1.9 and 10.2.0.15.3) and relates them to the on-going ritual cycle.

The four dates in the inscription highlight a quartipartite cycle of rituals which is divided by three distances of 822 days or approximately nine months. The beginning and the ending and the two dates in between of the fire cycle were celebrated. The four dates of the Casa Colorada inscription are surprisingly close to the yearly astronomical turning points as they were perceived by the Colonial Maya (table 2). The fire rituals may have celebrated these important astronomical events.

## ANALYSIS OF THE TEXT

David Kelley was the first to analyze the Casa Colorada inscription structurally. He identified K'ak'-u-Pakal's name and propo-

sed that he appears as a historical individual in this text (Kelley 1976: 284–285, 288). Yet, he also had to acknowledge: “Not all of the breaking points are clear, but many phrases can be distinguished” (1976: 288).

The sequence of four dates reveals the quartipartite structure of the Casa Colorada text. The individual phrases which are associated with the four dates have a uniform structure: chrono-

logical information at the beginning and/or at the end of the sentences encloses the event (a fire ritual), the object at whom the rite is directed, and the actor(s) with their titles. The location

where the rituals took place is additionally specified in three sentences.

On 6 Muluk 12 Mak (September 11, A.D. 869), the beginning of the fire cycle, fire was drilled (hoch’obiy u k’ak’) two times (glyph blocks 5–6 and 13–14; glyph block 5 most likely reads hoch’; for hoch’obiy as a Yucatecan Maya passive see Lacadena & Wichmann 2002). This resulted in the appearance of two deities: 7 Yax-Uk’-U-Sa 8 K’awil 9 u k’aba k’u “Yax-Uk’-u-Sa<sup>4</sup> is the name of the god” and 14b ? 15 u-Ch’ok 16 u k’aba k’u “?-u-Ch’ok is the name of the god”. The third sentence ushers in K’ak’-u-Pakal (whose name and titles are given in glyph blocks 22b-26) as the main actor of the preceding ceremonies (for an analysis of his titles cf. Voss & Kremer 2000). The verbal expression includes u tza-kah “he conjured clouds” (the above gods) and states explicitly the public character of the fire ritual since the fire drilling and the conjuring rite took place 22a tu nabil “on the plaza”. The text does not go on to specify where this plaza was but it may have happened in front of the Casa Colorada.

The fire ritual continued 274 days later on 7 Ak’bal 1 Ch’en (June 12, A.D. 870) with 30 puluhiy 31 ti k’ak’ 32 holul “[the fire] was thrown into the fire hole”.<sup>5</sup> The “fire hole” may have been one of the two cenotes that are so prominent in the topography of Chichén Itzá.

The third section of the fire cycle (on 8 Kanban 18 Sots’; March 13, A.D. 871) begins with

38a ay /a-ya/ (T228: 126) “it is”, a phonemic spelling of the PSS Introductory Glyph.<sup>6</sup> A fire drilling (hochohiy u k’ak’) was performed 40 utiy at the 41 ? :su hol (T662: 216. 589:580) which may refer to a second ce-

Table 2. Comparison of the Casa Colorada dates with the yearly astronomical turning points

Event	Casa Colorada	Colonial Maya	Astronomical date
autumnal equinox	Date 1 (Sept. 11)	Sept. 13	Sept. 23
summer solstice	Date 2 (June 12)	June 11	June 21
Vernal equinox	Date 3 (March 13)	March 10	March 21
Winter solstice	Date 4 (Dec. 12)	Dec. 12	Dec. 22

Colonial Maya dates are taken from the Chilam Balam de Chumayel; Roys 1967: 24, 86–87

note next to the k’ak’ holul “fire hole”. The “reddening of fire” (42 u chakiy k’ak’), an obviously alternative expression for fire drilling which happened next, is followed by the enigmatic expressions that may name an object or the fire itself since the sentence 44 tu ka talal 45 u k’ak’ 46 siye-a 47 tu 1 pis 48 tun natz “within the second coming the fire which was born in the first year extinguishes” is added. The middle segment 43 ik yaxum (T679: 102: 126.756var: 74) seems to be a proper name referring either to a location or the performer of the fire drilling.

The anterior sentence, the concluding sentence of the third section (glyph blocks 49–51) and the phrase of the fourth and last section of the fire cycle are parallel: 44 tu ka talal 45 u k’ak’ 46 siye-a 47 tu 1 pis 48 Tun natz (transliteration above), 49 3 talal 50 u k’ak’ batal 51 tu 2 pis Tun “the third coming of the fire ... in the second Tun” and 52 u 4 talal k’ak’ 53 ah kital 54 tu 3 pis Tun “the fourth fire-coming ... in the third Tun” (on 9 Chuen 4 Kumk’u; December 12, 871). The middle segment of these sentences (batal and ah

kital) seem to be names, too, considering the parallel structure of the sentences.

Vital information is delegated to the end of the inscription. The last three glyphs blocks (55–57) introduce the three actors who supervised the last three parts of the fire rituals. The phonemically written *u kaban* “in the territory of” (Schele & Freidel 1990: 360, fig. 9: 12) or *u kabal* (a possible variant of *u kabhi* “by the doing of”) is used here as a relational glyph. The individuals are: *k’ul ah tz’ul wah*, that is, *K’ak’-u-Pakal* who carries the same title in glyph block 24, *k’ul tal? ahaw k’inich Hun-Pik-Tok’*<sup>7</sup> and *k’ul kokom Yahawal Ch’o K’ak’*. The use of titles before (and not, as would be expected, after) the names of *Hun-Pik-Tok’* and *Yahawal Ch’o K’ak’* is considered typical for Yucatec Maya syntax (Lacadena 2000).

*K’ak’-u-Pakal*, *Hun Pik Tok’* and *Yahawal Ch’ok K’ak’* may have formed part of the collective government (*multepal*) that ruled over Chichén Itzá (Grube 1994). It has been suggested that large ceremonies and especially ritual cycles similar to the fire cycle may have served as public demonstration of the ruling elite’s unity. The *multepal* model has been criticized during the last years. The *tal Emblem Glyph* denotes the site of *Ek’ Balam* north of Chichén Itzá where *Hun-Pik-Tok’* may have been a ruler (Voß & Eberl 1999). It is alternatively possible that *Hun-Pik-Tok’* did not belong to the Chichén Itzá elite but that he came as a visitor to attend the fire rituals. Erik Boot (personal communication, 1999) proposes that Chichén Itzá had a hierarchical structure similar to the southern lowlands royal courts with *K’ak’-u-Pakal* as supreme lord. From that perspective, the first part of the Casa Colorada text in which *K’ak’-u-Pakal* is responsible for the fire rituals celebrates his paramount position in Chichén Itzá.

## CONCLUSIONS

The new analysis of the Casa Colorada text identifies four dates between September 11, A.D. 869 and December 12, A.D. 871. The

distance between each date amounts to 274 days or one Tzolkin cycle plus 14 days and covers a period of 822 days. It is possible that the four dates relate to equinoxes and solstices and thus may have had astronomical significance.

The various toponyms of the inscription (glyphs 22a, 32 and 41) may refer to the sacred topography of Chichén Itzá. The “holes” into which fire was thrown or where fire was drilled probably corresponds to the two cenotes in the center of the site.

The fire rituals begin with the “drilling”, that is the creation of fire, followed by its extinction (the “throwing” of fire). That is, they have a binary structure that brings creation and extinction of fire together. The quadripartite chronological structure thus contains two cycles of creation and extinction. Fittingly, the PSS introductory glyph which effectively indicates breaking points in a glyphic text and the beginning of new information introduces in glyph block 38 the second cycle of fire events.

## NOTES

- 1 Acknowledgements: We are grateful to Erik Boot and Alfonso Lacadena for their helpful comments.
- 2 To our knowledge, James Fox (1997: 17–18) was the first to note that this may work as a distance number, yet he only connected the first and the second Calendar Round.
- 3 Glosses for *natz* include *natzal* “acabarse de todo alguna cosa” (Ciudad Real 1984: Folio 316v).
- 4 Reading according to Wagner (1995: 54).
- 5 Meanings of *pul* include “throw” (prevalent in the Yucatecan languages), “burn” (mostly in Cholan) and “dip, sink into water” (Tzeltal/Tzotzil).
- 6 On a recently discovered altar at Tonina (attributed to *K’el Ne Hix*) appears the Primary Standard Sequence Introductory Glyph as T679 229 /a-i/ (glyph K).
- 7 Erik Boot identifies the title of *Hun-Pik-Tok’* as the Emblem Glyph of *Ek’ Balam*, *k’ul tal ahaw* (personal communication, 1998).

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