



## *The 'End' of the Maya Long Count? 2012 and the Classic Maya*

by Erik Boot

### INTRODUCTION

The second meeting of the AISI (Associazione Italiana Studi Iberoamericani) was dedicated to "Apocalypse" in Latin American literature. In the year of 2012 this particular subject was chosen as various non- and pseudo-scientific and New Age publications hold that the Maya Long Count ends in 2012, more specifically on December 21 (the date according to the 584,283 correlation between Maya and Christian calendars). This 'end' of the Maya calendar, again following these publications, would herald worldwide disasters (earthquakes, tsunamis, solar storms, magnetic pole inversions, ...), *the end of civilization as we know it*, and in some scenarios would lead to a new or next level of our joint consciousness. Many of the authors of these publications on 2012 work within the wide framework of the New Age movement, while a much smaller number of authors can probably best be described as fear mongers (one of them even predicted a Richter scale 10 earthquake on December 21). As these lines may already show, the pseudo-science I write of here can be placed in two or perhaps even three groups. There is a number of authors that employ common knowledge of ancient and present-day Maya culture and add to it very difficult to proof (and sometimes even completely mistaken) layers of meaning



that for instance invoke grand astronomical cycles which would explain the origin of the Maya calendar and its supposed associated meanings and prophecies. Others just add anything from other Mesoamerican cultures, or even any Amerindian culture, to what they as authors consider valid to their arguments. Many of the sources they use to arrive at their points of view are either hidden or secret, only revealed to them and not to others, revealed through the use of certain mind expanding substances, employing unfounded interpretations of ancient images and texts (sometimes incomplete and/or taken out of context), etc. Additionally there is a group of authors that sees the 'end' of the Maya calendar in 2012 as being linked to similar 'statements' in others cultures (all based of course on their own interpretations, hidden sources, yet to be excavated architectural arrangements, recent 'strange' findings or happenings, fake 'archaeological' objects, etc.), for instance Egypt or ancient India. And yes, the return of rogue planets and extraterrestrials are invoked as well. During the last ten years hundreds and hundreds of books have appeared that accorded with any of the above points of view (for overviews see for instance Campion 2011; Hoopes 2011a, 2011b; Sitler 2006). The amount of articles and books written by actual specialists on the Maya calendar, history, languages, iconography, and hieroglyphic writing is however, in comparison, very small (e.g., Aveni 2009; Boot, Van Broekhoven, and Berger 2010; Carlson 2011; Gronemeyer and MacLeod 2010; Restall and Solari 2011; Stuart 2011; Van Stone 2010).



Figure 1. A selection of book covers of pseudo-scientific and New Age publications and movie posters. Included are also some of the books published in Italy; on the far right five covers of books written by Maya specialists.

I am such a specialist and only through education (lectures, interviews, articles, books, exhibits) one can provide insight into what 'really' was meant by the Maya and



the so-called 'end' of their calendar in 2012. 'Really' is placed between quotes to show that the research findings presented here are not definitive (and I eschew the use of the word 'truth'); they are checked, verified or falsified, and changed when necessary. This does not mean that everything I write here is in continuous and/or unbridled flux, it means that research is a serious business in which the smallest change and/or new detail can lead to a different or (sometimes) an even completely new insight. Unfortunately, official publication of these new insights can be slow.

In this essay I present a short overview on how the idea of an 'end' of the Maya Long Count emerged, which ancient Maya hieroglyphic texts (from the Late Classic Maya period, ca. A.D. 550-900) refer to this particular date, and what the only text that may tell us something on 2012 reveals. *Reveals* indeed; as that is the original meaning of the word apocalypse, many times erroneously defined as the disaster itself. Apocalypse, from the Greek *apocalypsis*, simply means "uncovering or disclosure (of knowledge)" and this composite noun is best known from the Bible book "The Revelation of John." But as the American Heritage dictionary indicates, in modern (American) English the word apocalypse came also to stand for "great or total devastation; doom" (Soukhanov 1992: 410). A drastic change in meaning has thus taken place; apocalypse came to mean what it actually was meant to reveal.

#### THE ORIGIN OF THE 'END'

One of the starting questions in my research on "Maya 2012" has been: Where does this 2012 'Doomsday Scenario' come from? This 'Doomsday Scenario' seems to have its origin in a short passage in the popular introductory book *The Maya*, written by Michael D. Coe. It was published in 1966 (first edition). In the 1950s Michael Coe was a pioneering investigator of the Olmec culture and during the 1960s to 1990s wrote major contributions for Olmec and Maya studies. From his introductory book on the Maya I distil the following short passage:

Thus, [...], our present universe would have been created in 3114 B.C., to be annihilated on 21 December, A.D. 2012, when the Great Cycle of the Long Count reaches completion. (Coe 1980 [1966]: 174, dates changed in accordance with the correlation used in this essay; Coe employed 3113 B.C. and A.D. 2011 as he took a year "zero" into account)

This particular passage is of great significance for various reasons. The first reason is that this very passage appropriates Maya culture as being *ours*. As such one can read "*our* present universe." However, we are dealing with the cosmivision and religion of an ancient people in the southeast of Mesoamerica (parts of Mexico, Guatemala, Belize, part of Honduras and El Salvador) now commonly known as the Maya; *their* universe is something else than *our* universe. The second reason is the



choice of words; *creation* would have taken place in 3114 B.C., while *annihilation* would take place in A.D. 2012. The latter date is connected to the statement “when the Great Cycle of the Long Count reaches *completion*.” I have put various words in italics for a reason; these all are words with very specific connotations. At the same time, these specific connotations together seem to make a rather bold (but incorrect) statement that goes something like this, “when the Great Cycle was initiated in 3114 B.C., our present universe was created; when the Great Cycle reaches its completion in A.D. 2012, our present universe will be annihilated.” This particular perception seems to underlie most if not all books that propagate a ‘Maya apocalypse,’ in the sense of (some kind of) a world destruction.

As an academic researcher I have to add some very specific observations. First, Coe published his book in 1966, with the knowledge of his time. The epigraphic revolution still had to take place (in the 1970s and 1980s, which led to our present state of knowledge of Classic Maya society through epigraphic material – and which is only one source on Classic Maya society; others include of course archaeology and anthropology). Second, this is an introductory book for a general audience, not a scientific study. Third, was Coe aware of the fact that there was indeed a Classic Maya text that referenced the date in 2012? That particular text can be found on Monument 6 from Tortuguero. Berthold Riese, who first wrote in detail on that hieroglyphic text in 1978 and 1980, informs us that it apparently was found in 1958, covering a tomb (Riese 1978: 187). However, there is no official excavation report, it is only hearsay (compare Arellano Hernández 2006: 102); this is the information that Riese obtained at the Museum of Villahermosa, where three fragments of Monument 6 now rest. Coe makes no mention of the monument or its text; but even if he did know about the text, except for the date, the text on the future events of 2012 would have remained without any (detailed) decipherment. Two-thirds of the central part of Monument 6 were published already in 1962, by J. Eric S. Thompson (1962: 438, Plate 12). While the Tortuguero monument was thus known at that time, apparently the fragment with the 2012 date had escaped the attention of even some of the greatest in the field of Maya studies.

It is not known in what kind of state Monument 6 originally was encountered nor is its original location known. Its present state is severely fragmented. The original shape of the monument was like a large “T” (it has the shape of the Maya *ik’* or “wind, breath; spirit, soul, life” sign), slightly slanted to the right. The monument had a height of circa 190 cm; on top it was circa 130 cm wide (the upper bar of the “T”/*ik’* sign), the body of the monument was some 65 cm wide. The monument could indeed have functioned as the cover of a tomb, but it may even have been manufactured as a wall panel (so-called *ik’* shaped niches and windows are known at Palenque, a neighboring site; the histories of the royal dynasties at the sites of Palenque and Tortuguero are closely related, perhaps even interlocked – see Guenter and Zender 2000; Gronemeyer 2004; Grube, Martin, and Zender 2002).

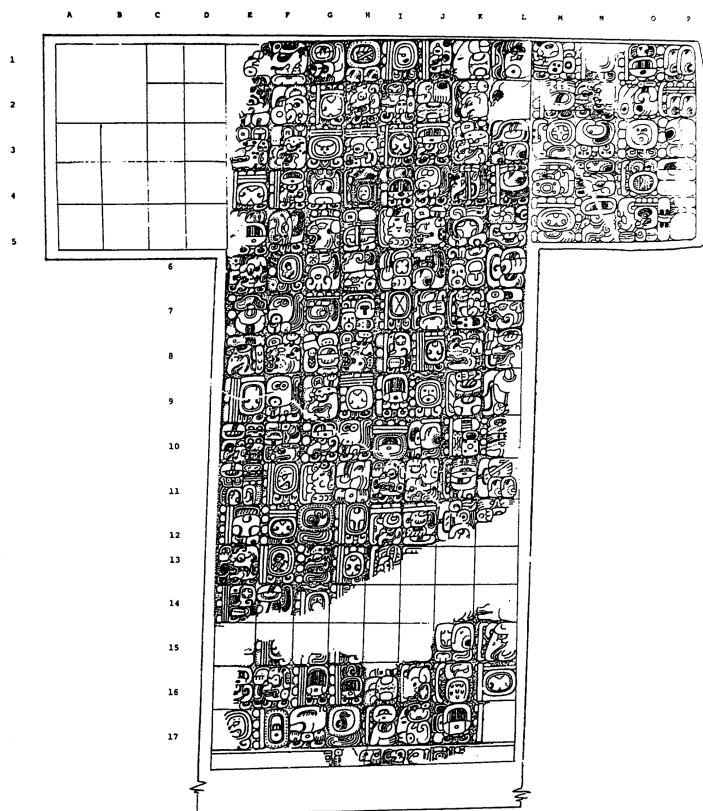


Figure 2. Tortuguero, Monument 6, with left side panels reconstructed. Drawing of main body of the text by Ian Graham and right side panel by Sven Gronemeyer. Configuration after Grube, Martin, and Zender 2002, II: 29.

The upper left and right side panels of the monument were sawn off after discovery; the left side panel has been lost (or is part of some unknown collection), the right side panel (with the 2012 date) now consists of three fragments. One of these fragments (with the actual 2012 date) is at the museum in Villahermosa, the other two fragments were first part of an art gallery in the US and are now part of a private collection. Small parts are missing and some chipping of the stone and thus further loss of sculptured detail has taken place (at, of course, as divine providence has it, pivotal parts of the text). Two large fragments of the main body of the monument are now in the museum in Villahermosa, while the central fragment is at The Metropolitan Museum of Art in New York (e.g., Boot, Van Broekhoven, and Berger 2010: 82. The fragment at the MET has never been on exhibit, but it is published in Thompson 1962 in Plate 12. The fragment was owned by Michael C. Rockefeller, was gifted to the museum in 1963, and officially entered the collection in 1978 – accession number 1978.412.75).



## THE MAYA CALENDAR, A VERY SHORT OVERVIEW

The Maya employed, and still employ, several calendars that had a cyclical character. After the last day of a cycle, a new cycle would start with the first day of that particular cycle. Before the conquest by the Spaniards (ca. A.D. 1525-1545) and starting probably in the first century B.C. the Maya tied these various cyclical calendars together by a day-to-day count that provided linear time, named by Mayanists the Long Count. The Long Count had its origin outside the Maya area (earliest example: Chiapa de Corzo, Stela 2, 36 B.C.); it was thus adopted and in various historical stages adapted and shaped by the Maya (Boot n.d.). The various Maya calendars or cycles are:

- a 260-day calendar; this calendar combines the numbers 1-13 with 20 different day names (13 x 20 generates 260 uniquely named days); in Maya studies it is referred to as *tzolk'in* (a composite noun invented by early Mayanists). In the Guatemalan highlands the 260-day calendar is still used (e.g., Craveri, this volume); in K'iché'an languages it is named *cholk'ij* "order of the days," e.g., Weeks, Sachse, and Prager 2009: 2);
- a 365-day calendar; this calendar employs 18 months of 20 days each, to which a period of five days is added ( $18 \times 20 + 5 = 365$  uniquely named days). This 365-day calendar had various regional variants throughout the Classic, Postclassic and Colonial period (if I write the month name paring Uniiw [K'ank'in] below it means that the Classic Maya name was Uniiw and K'ank'in was the name of the same month in the colonial Yucatec calendar). It is still in use in some communities in the Maya Highlands, for instance among the Ixil (Van Akkeren 2005: 31-33, although its precise present-day use is not described in detail). No leap days were taken into account; it is thus an *annus vagus* (compare to the Egyptian year of 365 days; e.g., Parker 1950: 7, 51-53);
- various other cycles, among them a 7-day cycle, a 4 x 819-day cycle (associated with the world directions), a cycle of 9 gods, and a moon cycle that employed moon lengths of 29 or 30 days (6 moons were grouped together, 3 differently named groupings existed);
- the Long Count, which counted day by day with a place notational system from a certain "zero point" and used a unit of base 20. (For comparison, note French *quatre-vingts* "80" or English "a score of years," meaning 20 years.) Counted and grouped were 20 single days or *k'in*; 20 days formed 1 month or *winal*; 18 months formed 1 year or *haab*; 20 years formed 1 "twenty-year period" or *winakhaab*; 20 *winakhaab* formed 1 "fourhundred-year period" or *pik* (commonly referred to in the literature [and below] as *bak'tun*, an invented word); higher periods or units were counted by 20. The "year" used in the context of the Long Count is 360 days long, *not* 365 days.



The 260 and 365 day calendars were combined together in a very specific way, the origin of which is still lost. That combination resulted in a 52 year calendar, referred to among Maya specialists as Calendar Round (in the literature sometimes also referred to as the "Mesoamerican century"). In some early Colonial sources written in Yucatec Maya this particular calendar combination seems to be referred to as *ububukil hab* (e.g., Chilam Balam de Tizimin, fol. 19R), which tentatively can be paraphrased as "the (u-) repeatedly(?) joining (*bubukil*; *buk[il]*) "joining," reduplication of root may mean "repeatedly") of the years (*hab*)". However, after 52 years both calendars started again with the same combinations. To make any date unique (and thus apply the concept of linear time), the Long Count was invented (as noted, the first examples of this Long Count are from non-Maya areas and predate the examples that are now culturally identified as Maya).

While the Long Count looks daunting, it is not that far apart from our concept of linear time, the Christian year count. The numerical system that is the base of our year count is also a place notational system, but with base 10 (the decimal system). Thus 2012 (or perhaps better 2.0.1.2) means that 2 times 1,000 years, 0 times 100 years, 1 time 10 years, and 2 times 1 year have passed since a certain starting point (the reconstructed birth year of Christ). We now easily place dates long times before that year (the dates B.C., or more neutrally B.C.E.). The Long Count for that very specific date December 21, A.D. 2012, is written by specialists in Maya studies as 13.0.0.0.0, in which the largest unit is at the beginning and the smallest at the end (just as in our representation of the year 2.0.1.2). The Maya Long Count 13.0.0.0.0 simply means that 13 times "fourhundred-year periods" have passed and no others (those are at "zero"; in Classic Maya *mihil* "not[hing]" or *k'al* "enclosed; tied"). As these are "years" of 360 days, some 5125 years (of 365 days, and now counting leap days as well, as we are calculating in our current Western concept of year) have passed since an earlier point.

The December 21, 2012, Long Count date 13.0.0.0.0 is combined with a Calendar Round date 4 Ajaw 3 Uniiw (K'ank'in). The Long Count date some 5125 years earlier (from which it is counted) is also 13.0.0.0.0, but in 3114 B.C. it was combined with 4 Ajaw 8 Hulohl (Kumk'u'). Same position in the 260 day calendar (4 Ajaw), but different in the 365 day calendar (3 Uniiw vs. 8 Hulohl). The date 13.0.0.0.0, 4 Ajaw 8 Hulohl, falls in 3114 B.C.. And that is the date that Coe correlated with the "creation of the universe." One should note that is not a 'zero' date at all; it already counted 13 bak'tuns from a much earlier point in time (in 8237 B.C.). According to the Classic Maya the date 13.0.0.0.0, 4 Ajaw 8 Hulohl, was of great importance, but as our current (and specifically my) knowledge goes, this was not a 'creation' date in the true sense of the word (with creation as the de facto act of bringing something into existence through a supernatural act by a supernatural agent or agents that did not exist before; see Boot 2012.) Something very special took place on this date; several hieroglyphic texts refer to specific events on this date, but while we can decipher most of these events their meaning remains quite opaque. Various other Maya hieroglyphic texts show that



events took place in the very remote past, far before 3114 B.C.; for instance, the panel inside Palenque Temple XIV records a date some 933,000 in the past, while Naranjo Altar 1 records a date some 23,000 years in the past.

The date 13.0.0.0, 4 Ajaw 8 Hulohl, was considered to be very special. At the site of Coba, Quintana Roo (Mexico), this date is recorded three times (Stelae 1, 5, and 28; see Callaway 2011 for the Stela 28 example); the date is given as 13.13.13.13.13.13.13.13.13.13.13.13.13.13.13.13.13.0.0.0.0, 4 Ajaw 8 Hulohl. There are *nineteen* additional higher (larger) units, which, if they represent a true Classic Maya notion of the passage of linear time, record some  $40 \times 10^{27}$  years. (These examples of the Great Long Count may be contrived; as other researchers have noted as well, there are 20 numbers 13 recorded. 20 is a very important calendrical number; a count of 20 completes most units of time in the Long Count). At Yaxchilan (Hieroglyphic Stairway 2, Step VII) one can find the date 13.13.13.13.13.13.13.9.15.13.6.9, 3 Muluk 17 Mak (A.D. 744), showing eight higher (larger) units. The calendrical calculations in the text of for example Palenque's Temple XIV panel indicate that these multiple higher periods that stand at "13" are present as well, otherwise calculations into deep time do not work and do not generate valid Maya dates.

However, it needs to be noted that there does not seem to be a unified sense of this calendrical system of higher units (of which there is only a small amount of examples) in the Maya area. At Tikal, on Stela 10, a Long Count (of which the smallest unit, the amount of *k'in* "days," is lost) is registered as 1.11.19.9.3.11.2.[...], a date in January of A.D. 506. (This date is close to the range of dates known for Tikal king Kalo'mte' Bahlam, ca. A.D. 511-527, portrayed on the front of the stela; Martin and Grube 2008: 38-39). If there was unity in the calendrical record of higher units, one would have expected to find 13.13.13.9.3.11.2.[...]. There may thus have been various Classic Maya linear time concepts and thus (perhaps different) associated mythologies. This brings us back to the text at Tortuguero that records the date 13.0.0.0.0, 4 Ajaw 3 Uniw.

#### TORTUGUERO MONUMENT 6: 2012 AND THE MAYA

The archaeological site of Tortuguero is located at the foot of Mount Macuspana, part of the mountain range that rises from the lowlands in Tabasco (Mexico), on the western side of the Maya area. The archaeological site has nearly disappeared from sight (and existence), as its remains stood close to a concrete factory. The site and the surrounding mountains were used as its raw material (as the unfortunate 'local legend' has it).

While Monument 6 was probably discovered in 1958, the first report appeared in 1978, written by Riese. This report also provided the first drawing of the then known





remaining fragment of the right side panel. That fragment shows the 13 *pik* statement and (part of) the Calendar Round date 4 Ajaw 3 Uniiw. As said above, Monument 6 is quite fragmented, especially the right side panel that contains the 2012 reference. To my knowledge it is not until 1992 before the other surviving fragments became available as drawings to more than just a very small group of Maya epigraphers. These drawings, produced by the late John Montgomery, are based on photographs. Apparently no complete set of photographs was available to most Mayanists and even to those who produced the drawings. This is interesting, as the quality of and the detail within the drawings of the right side panel of Monument 6 has defined most of the recent debate on this text. The lack of detail in earlier drawings has significantly influenced the opinions of many epigraphers on this text, including the present author. (Figure 3 illustrates the progress in quality and detail of the most pertinent part of the text on the right side panel).

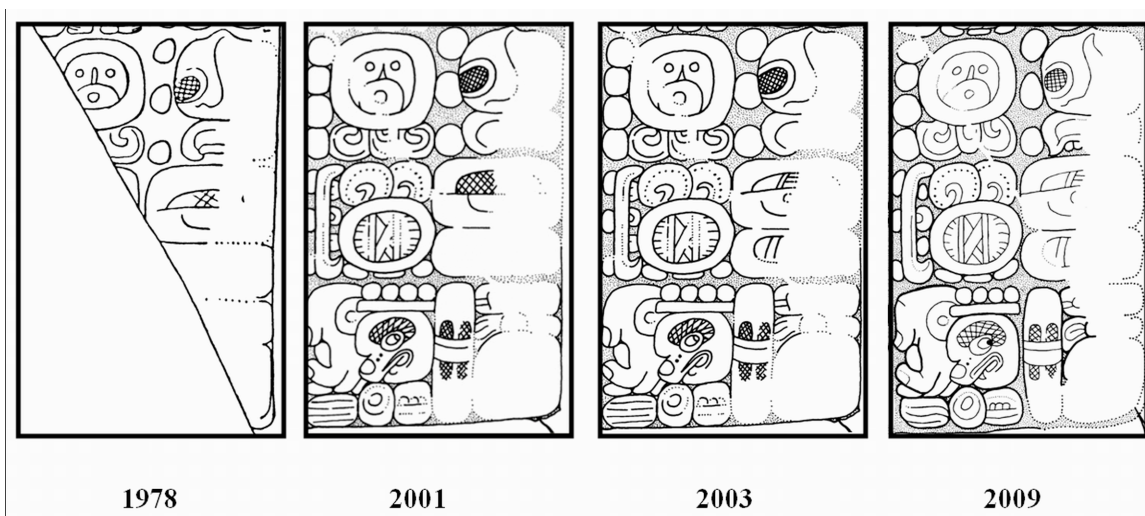


Figure 3. Comparison of drawing quality and detail of pertinent part of the right side panel of Monument 6: 1978 (Riese), 2001 (Gronemeyer), 2003 (Gronemeyer), and 2009 (Gronemeyer).

A most dramatic change has been in the detail of the third collocation (the best available drawing is available in Figure 4). In the first two drawings the large oval sign seemed to represent the sign for *ek'* or *ik'* "black." Gronemeyer (2004, II: 86) transcribes it as such and suggests an adjectival usage ("blackness"). However, when old photographs and the monument itself (the fragment is at the museum in Villahermosa) were studied, it became clear that a different sign was written. The 2001 drawing (by Gronemeyer), which has been used often (it was available online at Wayeb.org), was flawed. In 2002, during the Texas Maya Meetings in Austin, Nikolai Grube, Simon Martin, and Marc Zender discussed the text and proposed that it referred to "the end of the 13th bak'tun which we will see in the year 2012 [...] *utom*



... 'it will happen' followed by something we cannot read and 'he will descend' *yem*. The last glyph begins with *ta* followed by something. However, this is not the end of the world" (Wanyerka 2002: 112-113; compare Grube, Martin, and Zender 2002, II: 28-29).

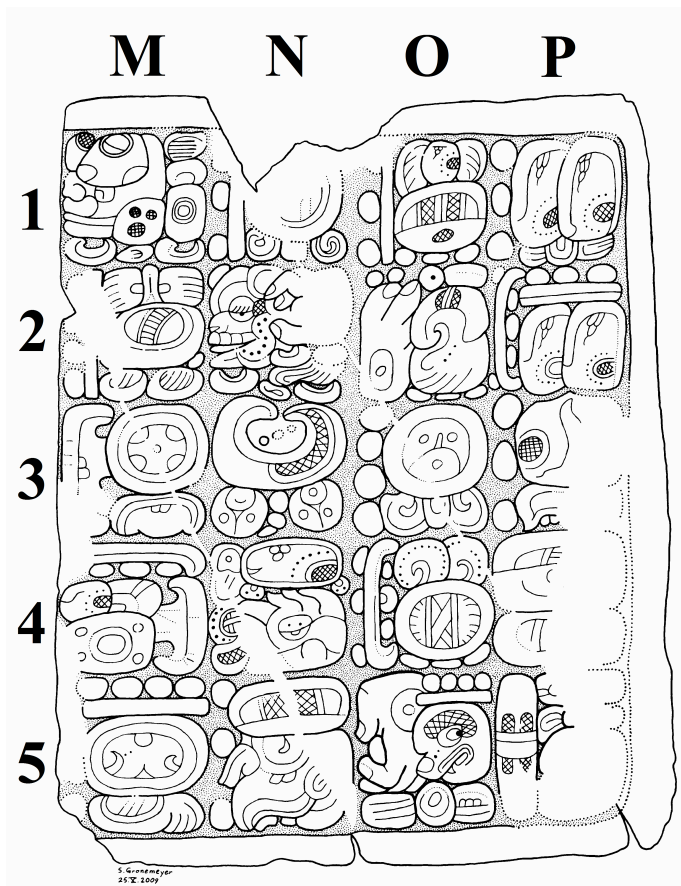


Figure 4. Tortuguero, Monument 6, right side panel. Drawing by Sven Gronemeyer.

Some Maya specialists thus already had made it clear that this text did not refer to the end of the world, at a very public forum in Austin, Texas, in 2002! In 2006 David Stuart, on a request, posted a quick rendering of the 2012 text. His translation (including a Classic Maya transliteration; kept for posterity on the web, Stuart 2006) went as follows: "The 13th *bak'tun* will be finished/(on) Four Ajaw, the third of Uniiw (K'ank'in)? will occur/(it will be) the descent(??) of the Nine Support? God(s) to the ?". The old drawing contained another mistake, which made Grube, Martin, and Zender as well as Stuart err in the "descend (v.)/descent (n.)" reading (but note that the added two queries by Stuart do indicate the very low level of certainty). Even though it became apparent in further research that his translation (and interpretation)



contained various errors and omissions (most simply due to missing detail in the drawing), it spread 'like a wild fire' in various (New Age) communities, specifically among those who had an interest in 2012. (How unfortunate that the earlier 2002 statement, *nota bene* published in the Maya meetings proceedings, did not meet that fate as well). In his 2011 publication Stuart posits that the Monument 6 text does not reveal anything on 2012, but that it is part of a rhetoric construction targeting an earlier date in the Monument 6 text; I do not subscribe to this conclusion, nor do many other Mayanists (e.g., Boot, Van Broekhoven, and Berger 2010; Gronemeyer and MacLeod 2009; Van Stone 2010).

The Monument 6 text provides a life history of Tortuguero king Bahlam Ajaw, from his birth in A.D. 612 (which originally was recorded on the now lost left side panel; e.g., Arellano Hernández 2006; Gronemeyer 2004; Grube, Martin, and Zender 2002), through several important life events (on the main body of the monument) to a sanctuary dedication in A.D. 669 (on the right side panel). The date in A.D. 669 is linked to the date in 2012 through a Distance Number (which provides exactly the distance in time between the two dates). Now remember that the shape of the monument is like the sign for *ik'* "wind, breath; spirit, soul, life", and a life history (in part) is recorded. The shape of the monument is thus, in my opinion, intentionally chosen. As such I think it was originally used as a wall panel (much like the *ik'* shaped niches and windows in walls at Palenque); if indeed originally used as the cover of a tomb, the panel was most probably re-used. More importantly, the rhetoric structure of the text mirrors other texts that employ mythological dates. At Palenque various texts *open* with dates set in the remote mythological past, link to 13.0.0.0 in 3114 B.C. and continue to a dedication or installation of a king (e.g., Cross Group Tablets, Temple XIX Bench). At Tortuguero the Monument 6 text opens with a historical date in A.D. 612 and *ends* with the 13.0.0.0 mythological date in 2012 (from a temporal perspective the 2012 date was mythological, that far in the future as it was then). These important mythological dates are used as anchors for historical events; the mythological dates legitimize the events performed by the Maya kings. Ultimately, in my opinion, these mythological dates function as a textual or rhetoric framing device, either opening or closing (an) important historical event(s) (commonly a life history, a dynastic list, or a series of dedicatory events) and placing them on the grand scale of Maya time (Boot 2009).

In 2009 I was part of a team that organized the exhibit "Maya 2012" at the Museum of Ethnology in Leiden, the Netherlands. For the exhibit I closely followed Grube, Martin, and Zender's and Stuart's original translations, but further research as well as the availability of good photographs made it clear that the short text on 2012 did reveal something else. My new findings (based on my own epigraphic research and the exchange of ideas through e-mail with a small group of researchers, including but not exclusive to Michael Grofe, Sven Gronemeyer, Hutch Kinsman, Barbara MacLeod, Christian Prager, Mark Van Stone, and Elisabeth Wagner) were published in



the 2010 catalog (Boot, Van Broekhoven, and Berger 2010). More recent epigraphic research has slightly altered that preliminary analysis again. Here thus follows an adjusted, and still preliminary, analysis of the one text on 2012, including the hieroglyphic transcription and the transliterated and reconstructed Classic Maya text (added queries indicate still doubtful identifications, and thus bear on the preliminary status of the translation as well):

- O2-P2 TZUTZ-jo-ma 'u-13-PIK  
*tzu'tzjo'm u(y)uxlajuun pik*  
completed will be the thirteenth bak'tun,
- O3-P3 4-'AJAW 3-'UN-wi  
*chan ajaw ux uniiw (k'ank'in)*  
(on) 4 Ajaw 3 Uniiw (13.0.0.0.0; December 21, 2012);
- O4-P4 'u-to-ma 'i(?) -li(??)  
*uhto'm ili(??)*  
happen will this(??),
- O5 ye-ni(?) 9-'OK-TE'  
*yeni(l?) baluun yokte'*  
the presentation(?) of Baluun Yokte',
- P5 ta-CHAK-JOY(?)  
*ta chak joy(?)*  
at the Great Ceremony(?)

With this analysis we now can make a comparison to the passage in the work by Michael Coe and the common conception that the 'end' of the Maya calendar is related to the end of the world.

On what is the common idea based that the Maya calendar will 'end'? The verbal expression *tzu'tzjo'm* has as its root *tzutz-*. This verb root is most often translated by epigraphers as "to complete," "to terminate," and "to close." Specifically "terminate" has a clear negative connotation; if something "terminates" it is literally the "end." Add to this Michael Coe's 1966 statement that the world would be *annihilated* at the end of the thirteen bak'tun (the one in 2012), and thus here we have the idea of the "Maya Apocalypse" explained, with apocalypse to be defined (*per* the American Heritage dictionary) as "great or total devastation; doom."

As I discovered in my linguistic research on the text from Tortuguero, the root *tzutz-* has various senses and related sub-senses in the Mayan languages (we thus enter into the polysemy of the word to obtain an insight into what was, perhaps, originally meant and which subtle semantic changes are present) (see Boot 2010 for other examples of polysemy in Classic Maya writing; see Nerlich et al. 2003, Rakova 2003, and Vanhove 2008 for linguistic comparison). Among the meanings as given above (*tzutz-* as "to terminate; to end" and "to close"), in sixteenth century Yucatec



Maya (the Mayan language with the largest surviving collection of colonial vocabularies) the verb *tzutz-* can also be found defined “juntar una cosa con otra que parezca una sola” (Barrera Vásquez 1980: 868) or “to join one thing with another so that it appears to be one.” If this meaning is extended to the Tortuguero text on 2012, the Calendar Round date 4 Ajaw 3 Uniw is the last single day *to be joined* (to *all* the previous ones) so that the bak’tun *appears to be one*. In that manner the thirteenth bak’tun will appear as one, will thus be complete, and will thus be closed (i.e., none of these senses of *tzutz-* thus needs to be mutually exclusive). And from that follows that a new bak’tun can and will be opened.

And the Maya at Palenque show that that indeed happened. Recorded on the West Tablet of the Temple of the Inscriptions, the birth date of king K’inich Janaab Pakal on 9.8.9.13.0, on 8 Ajaw 13 K’anjalaw (Pop) (A.D. 603), is connected with a date in the future with a so-called Distance Number (this number records an amount of time, i.e., so many days, months, years, etc.; compare to our ‘distance numbers’ like “in two weeks,” “in a year and a half”):

$$\begin{array}{r} 9. 8. 9.13. 0, 8 \text{ Ajaw } 13 \text{ K'anjalaw (Pop)} \\ + 10.11.10. 5. 8 + \\ \hline 1. 0. 0. 0.0. 8, 5 \text{ Lamat } 1 \text{ Mol (A.D. 4772)} \end{array}$$

Here 10 bak’tuns are added to 9 bak’tuns. This means that the completion of the thirteenth bak’tun is just a station on a calendrical road to 1.0.0.0.0, the first *piktun* to be completed in A.D. 4772. From this one example it becomes evident that after 13.0.0.0.0 in A.D. 2012 thus follows 13.0.0.0.1, 13.0.0.0.2, 13.0.0.0.3, 14.0.0.0.0, 15.0.0.0.0, etc. until one reaches 1.0.0.0.0, after which 1.0.0.0.1, etc., will follow (the Palenque text actually also records the date 1.0.0.0.8). There is thus no end to the Maya calendar.

#### FINAL REMARKS AND CONCLUSIONS

The date 13.0.0.0.0 in 2012 was of religious-ceremonial importance to the Classic Maya; this date was associated with a possible celebration involving a god named Baluun Yokte’ (in full his name is known as Baluun Yokte’ K’uh, in which *k’uh* means “god”). This is a god associated with important calendrical events, among them the 13.0.0.0.0 date in 3114 B.C. (on Late Classic Maya vessels, such as Kerr 2796 and 7750), but also an event some 933,000 years in the past (Palenque, Temple XIV, Kerr No. 1398). But that is it. It heralds no end, it heralds no (new) beginning. It is a date on the way of completing the first *piktun* in A.D. 4772, a date mentioned in a panel text at the Temple of the Inscriptions in Palenque.



On June 28, 2012, the La Corona Archaeological Project released a press report in which the archaeologists stated that they had found one of the steps of Hieroglyphic Stairway 2, not looted or disturbed and in its original order. (Although the stones used for this step are all re-used and come from different contexts, they were arranged together as a step in ancient times; it is thus not the longest Maya text in Guatemala, as the press release states, as many of the text parts have different origins). One of the blocks of this step, Block V, contains a reference to 4 Ajaw 3 Uniiw. However, there is no associated explanatory text with this occurrence of the date 4 Ajaw 3 Uniiw. (Again it is part of a rhetoric device, a full explanation of which falls outside the scope of this essay; Boot 2012, n.d.). As such there remains only one *text* on 2012, the one on Monument 6 from Tortuguero.

All books and studies (of whatever kind) that provide some other association with the 2012 date are purely and simply conjecture and, in many cases, even fantasy on the part of the authors and do *not* represent the view (or possible prophecy) of the Maya of Tortuguero, or any other Maya for that matter, when the monument with the 2012 text was composed in A.D. 669. The view of the Maya, that is the Classic Maya who arranged the textual record on 2012 at Tortuguero (which one could name a prophecy, but it reads more like a simple statement), is rather straightforward: there will be a ceremony that celebrates this particular date. That is our current state of epigraphic knowledge of this short text.

And to add a last important point: differences in the higher units in the Long Count dates recorded at Coba, Yaxchilan, Palenque, and Tikal indicate that there was no uniformity in the register of periods that are higher than the bak'tun. There thus seems to be much more to the Maya calendar and how the (Classic) Maya themselves perceived this calendar, all part of the surviving corpus of hieroglyphic texts. As there is no end to the Maya calendar, there is ample time to do research on this much more intriguing phenomenon (e.g., Boot 2012, n.d.).

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