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1

Introduction to the Maya Codices

Studies of prehispanic Maya culture focus primarily on sites in the Classic period heartland—places such as Tikal, Calakmul, Copán, Palenque, and Yaxchilán, which reached their apogee during the sixth through ninth centuries. The northern Maya lowlands are less well known, with the exception of sites such as Chichén Itzá and those in the Puuc region. The time period after the depopulation of the great Maya cities, whether located in the northern or southern regions, has only recently been the focus of extensive research projects. This "Postclassic" period is a time of significant change in virtually all aspects of society. As our study shows, however, this time period is characterized by a continuation of mythological traditions from the Classic period, along with the introduction of new mythologies as a result of extensive cultural contact between populations in the northern Maya lowlands, the Gulf Coast region, and highland central and southern Mexico.

The Maya codices provide the primary source of textual and iconographic information for studies of Postclassic Maya culture. Where and when the three manuscripts now residing in European collections were painted remains a source of conjecture, although few codical scholars would dispute a general provenience in the northern lowlands.[1] Moreover, given the fragile nature of the material of which they are made, it seems likely that they were painted within a couple of generations of initial contact with Europeans in 1519. This is not to say, however, that the underlying content of the codices dates to this time period. Rather, as the work of recent scholars has demonstrated, many of the codical almanacs and tables reference astronomical and meteorological events dating from the Classic period, with the earliest dates corresponding to the fifth century (H. Bricker and V. Bricker 2011:359; V. Bricker and H. Bricker 1992; Vail and Hernández 2011). Some of these texts appear to have been

DOI: 10.5876/9781607322214.c01

intended solely as records of past events, whereas others were used for predictions in later centuries. Still other texts were newly made by the Postclassic scribes who drafted the extant versions of the manuscripts known as the Dresden, Madrid, and Paris codices (V. Bricker and H. Bricker 1992).

Many of the almanacs in the Maya codices lack dates that would associate them with absolute time. Rather, they record rituals and prognostications that were related to various cycles occurring in nature, including periods of 260 days, 584 days, and 52 years. Historical dates in the Maya codices relate specifically to celestial events such as eclipses or the appearance of deities that embody different planetary cycles. History in the sense that we think of it, as events in the lives of individuals, is not recorded in these texts. In its place, mythical events in the lives of deities are given considerable weight and are viewed in terms of their relationship to human concerns such as the success or failure of the maize crop and the amount of rain received during the time period when the scribe was composing the record of these events.

Ties between the historical present and the mythological past were made in various ways in the Maya codices. The scribes responsible for the Dresden Codex made explicit reference to dates in mythic time, calculated from the base date of the current era, which corresponds to 13.0.0.0.0 4 Ahaw 8 Kumk'u, or August 11, 3114 B.C.[2] In the codices, primordial time could also be referenced by specific iconographic elements, usually in combination with a short hieroglyphic caption. The Madrid scribes favored 4 Ahaw as the beginning date of almanacs with ties to creation episodes or to schedule ceremonies that were dedicated to renewing the world (see Chapter 9). In the Paris Codex, one means of linking historical and mythic time involved the depiction of bound crocodilians that formed "skyband thrones" to highlight parallels between the figures seated on the thrones and the act of subduing the earth crocodilian by mythic figures, such as the Hero Twins in the Popol Vuh.[3]

The Dresden was the earliest of the three Maya codices to come to light in Europe. It was purchased by the head of the Royal Library in Dresden in 1739 from an unknown source in Vienna. How and when the codex reached Vienna remains a matter of conjecture. Michael Coe (1989b) has suggested that it was one of the screenfold books described in a 1520 account of indigenous material sent by Hernán Cortés and his party to the Spanish court of Charles V. Cortés is said to have acquired "native books" from a visit to Cozumel in February 1519. More recently, John Chuchiak (2012) has put forth a different scenario to account for its presence in Vienna.

In an earlier study, Merideth Paxton (1991) concluded, on the basis of an iconographic analysis, that the codex was painted at some point during the Late Postclassic period and that this may have taken place at any one of a number of sites, including Chichén Itzá, Mayapán, Santa Rita Corozal, or Tulum.[4] Analysis of the astronomical content of the Dresden Codex suggests that its pages contain copies of earlier almanacs and texts that date from the sixth through the twelfth centuries (V. Bricker and H. Bricker 1992:82, table 2.8; Vail and Hernández 2011). Victoria and Harvey Bricker

(1992:83) suggest that the physical manuscript was most likely painted in the thirteenth century, although an early sixteenth-century date cannot be ruled out.

All but four of the Dresden's 78 pages (39 on each side) were painted. The codex includes a combination of what researchers term *almanacs* and *tables*, the former being distinguished from the latter in not including dates in absolute time. Of particular interest to our study are several almanacs that concern the yearbearer ceremonies (those that mark the transition from one year to the next), as well as astronomical tables, which include a Venus table (on pages 24 and 46–50), an eclipse table (on pages 51–58), a seasonal table (on pages 61–69), paired "water" tables (on pages 69–74), and a Mars table (on pages 43–45).[5] Early research on the Dresden Codex was undertaken by Ernst Förstemann (1901, 1904, 1906), a librarian at the Royal Library in the late nineteenth century.

The Madrid Codex has a very different history. It is first mentioned in the literature by the French scholar Brasseur de Bourbourg (1869–70). At the time, it was separated into two parts; Brasseur de Bourbourg named the first of these the "Manuscrit Troano" after its owner, Don Juan de Tro y Ortolano. The second part was purchased by the Museo Arqueológico de Madrid in 1875; little is known of its history before this, except that it originally belonged to someone from Extremadura, in southwestern Spain. Because this is where Cortés was originally from, the museum director named the codex fragment the "Codex Cortesianus" (Glass and Robertson 1975:153–154).

In the early 1880s, Léon de Rosny (1882) recognized that the Troano and Cortesianus codices were actually part of the same manuscript. The Troano was acquired by the Museo Arqueológico in 1888, and the two parts were reunited. Combined, the codex consists of 56 leaves, which are painted on both sides, for a total of 112 pages (Lee 1985:81). One of these pages includes an anomaly that has led to the possibility of tracing the early history of the codex. This consists of a fragment of European paper with a Latin text that is attached to the bottom of page 56 (Coe and Kerr 1997; Vail, Bricker et al. 2003; Vail and Aveni 2004:chap. 1).

Ethnohistorian John Chuchiak (2004) has identified the text on the patch as corresponding to a papal bull de la Santa Cruzada that was written in longhand. The style of the handwriting on the page indicates that it was written between 1575 and 1610. The content of the codex itself, however, is without doubt prehispanic (Graff 1997). It was likely painted at the end of the fifteenth century or the beginning of the sixteenth (H. Bricker and V. Bricker 2011:25).

Chuchiak (2004:70–71) was able to identify the handwriting on the patch as being that of the notary Gregorio de Aguilar. His cousin, Pedro Sánchez de Aguilar, was the commissioner of the Santa Cruzada and an ecclesiastical judge in the Chancenote region of Yucatán. In that role, he confiscated four hieroglyphic codices from this region between 1603 and 1608; several others were confiscated by other Catholic priests and extirpators between 1591 and 1608. The four seized by Sánchez de Aguilar, rather than being destroyed, were taken to Europe when Sánchez de Aguilar returned to Spain

(Chuchiak 2004:72–74). One of these is very likely the manuscript now identified as the Madrid Codex.

What this reconstruction suggests is that a prehispanic manuscript was used in secret by indigenous Maya *ah k'in* 'daykeepers' in Chancenote for nearly a century without coming to the attention of the Spanish authorities. Shortly before it was confiscated, the newly acquired papal bull was attached to the codex, presumably because of its sacred status in the "new" religion (Chuchiak 2004:78). What happened to the codex from the time of its arrival in Spain in the early part of the seventeenth century until its two parts were first documented in the 1860s remains uncertain.

The Madrid Codex differs from the Dresden in a number of ways, including the fact that it does not contain any astronomical tables as scholars have defined them.[6] Nevertheless, a number of its almanacs do record astronomical events that can be dated in real time (see, e.g., Aveni 2004; H. Bricker and V. Bricker 2011; V. Bricker 1997; V. Bricker and H. Bricker 1988; Vail 2006). In addition, several sections of the Madrid Codex have almanacs that are "cognate" with those in the Dresden Codex.[7] Even more surprising is the fact that the Madrid and Borgia Group of codices have structural similarities that cannot be explained except by positing that some type of contact existed among the scribes of the two regions (Boone 2003; Hernández and V. Bricker 2004; Vail and Aveni 2004:chap. 1; Vail and Hernández 2010).

The Paris Codex is in very fragmentary condition; not only have the edges of each page eroded, but it is clear that it was originally a much longer manuscript. Only 22 painted leaves survive. Although it has several almanacs in a format similar to those in the Dresden and Madrid codices, it is the only extant codex in the Maya tradition that includes almanacs dedicated to *tun* and *k'atun* prophecies (detailed later in the chapter), and it also includes the only known table depicting astronomical constellations (what some scholars have called the "zodiacal almanac").

The codex was acquired by the Bibliothèque Royal (now the Bibliothèque Nationale) in 1832, along with several other Mexican manuscripts (H. Bricker and V. Bricker 2011:13). It was copied, several years later (in 1835) by Agostino Aglio, as part of Kingsborough's *Antiquities of Mexico* (Gates 1932; G. Stuart 1994), but it remained unpublished due to Kingsborough's death.[8]

Because of these circumstances, the codex was not officially made known to the wider world until its publication by Léon de Rosny in the 1870s. As George Stuart (1994) and the Brickers (H. Bricker and V. Bricker 2011:13–14) point out, however, a description of the codex, along with a drawing of one of its pages, had been published in 1859. Nevertheless, it remains the least well known of the Maya codices, despite several full or partial commentaries (H. Bricker and V. Bricker 1992; Love 1994; Severin 1981; Treiber 1987). Its astronomical content has recently been the subject of a comprehensive analysis (H. Bricker and V. Bricker 2011:chap. 9, 12) that highlights its importance within the Maya manuscript tradition.

Sources for Interpreting the Mythological Content of the Maya Codices

It has been suggested that the scribes who drafted the Maya codices were part of a larger world system that linked the northern Maya lowlands to highland Mexico via a substantial trade network through the Gulf Coast region (Boone and Smith 2003; Vail and Hernández 2010:chap. 1). There are a number of explicit ties between the codex tradition characterizing highland Mexico represented by the Borgia Group codices (see chap. 2) and the Maya codices (Boone 2003; Vail and Hernández 2010). These ties may also be seen in mural programs from the Postclassic northern lowlands (Boone and Smith 2003; Masson 2003; Paxton 1986; Quirarte 1982; Taube 2010), including those at Mayapán, Santa Rita, and Tulum discussed in the following chapters.[9] We have had the good fortune of being able to examine the Mayapán murals in person, but those from Santa Rita are no longer extant (Gann 1900), and the Tulum murals are best preserved in the photographs and paintings done by Felipe Dávalos as part of Arthur Miller's excavations at the site in the 1970s (Miller 1982). These are housed at Dumbarton Oaks and were viewed by Vail during a recent visit.

In considering the influences on the Dresden and Madrid scribes, it is incumbent on us to remember the Classic period context in which the earliest versions of a number of the tables and almanacs were composed. During the Classic period, there is evidence that Maya populations from far-distant sites throughout the lowlands shared a widespread mythological tradition that incorporated a common set of deities and events, including a mythological flood that destroyed a previous creation; the death of the maize god in the Underworld, followed by his resurrection at a mythological place named Na Ho' Chan; the establishment of a celestial hearth to mark the home of the creator deities; and the formation of humans from maize dough (detailed in Chapter 3).

Breakthroughs in our understanding of these mythological episodes in the 1990s revealed that they are referenced in monumental texts from sites in the southern lowlands (such as Quirigua), the western area (Palenque), and the northern lowlands (including Chichén Itzá and Cobá), and on pottery vessels from throughout the southern lowlands (Grube et al. 2003; Looper 1995; Schele 1992; D. Stuart 2005). Different regions likely had their own variants of these creation stories, but they focused on similar themes and would therefore most likely have been known to the scribes who drafted earlier versions of the almanacs and tables that were later modified and copied into the manuscripts known today as the Dresden, Madrid, and Paris codices.

The longevity of this mythological tradition can be documented by common elements found at the Late Preclassic site of San Bartolo in the Petén (Taube et al. 2010), Classic period Palenque, the Dresden Codex, and the colonial period Books of Chilam Balam. Similarly, a variant of this tradition—the setting up of trees in the world quarters to support the sky—is also known to us from two of the highland Mexican codices belonging to the Borgia Group: the Codex Fejérváry-Mayer and the Codex Borgia.

It has long been held that the Maya codices contain little information of a mythological nature, being concerned instead with divination and prophecy (Taube 1993a:18). In the pages that follow, we show that this supposition can no longer be supported. Instead, we believe that the Maya codices serve, in a sense, as a bridge between Classic mythological traditions and the cosmogonic episodes and creation stories contained in colonial period indigenous manuscripts. Following in the tradition of earlier studies (including Knowlton [2010] and Taube [1988]), we document connections between narratives related in the codices (through a combination of textual and iconographic referents) and those contained in the Yucatecan Books of Chilam Balam and the Popol Vuh from the K'iche' culture of highland Guatemala.

The Books of Chilam Balam date to the late colonial period; each of the extant manuscripts is named for the community where it was first encountered by Western scholars (including Chumayel, Ixil, Kaua, Maní, and Tizimín, among others).[10] The designation "Chilam Balam" refers to a specific *chilan* 'prophet', named Balam 'Jaguar', from the town of Maní who is said to have foretold the arrival of the Spaniards and of Christianity. The Chilam Balam texts are written in a modified version of the Latin alphabet, primarily in Classical Yucatec, although there are occasional words or sections in Nahuatl, Spanish, and Latin (V. Bricker 2000). There is compelling evidence in the Chilam Balam of Chumayel that suggests that portions of it were copied from an earlier (likely prehispanic) manuscript (Knowlton 2010:68–69).

The Books of Chilam Balam treat a variety of topics, including history, divination, calendrics, cosmology, mythology, religious doctrine, and others, which can be traced to a number of different traditions—Yucatec, Nahuatl, and European (Bricker and Miram 2002; Knowlton 2010:2). As Victoria Bricker (2000) has noted, this is similar to the Maya codices, which likewise incorporate material from more than one Mesoamerican tradition.

Our interest lies in the creation myths associated with K'atun 11 Ahaw contained in the Books of Chilam Balam of Chumayel and Tizimín and in the Códice Pérez (n.d.).[11] Although the three versions share a number of similarities, they are not identical (Knowlton 2010:54). In addition, the Tizimín and Pérez manuscripts also contain important mythological events associated with the preceding k'atun, K'atun 13 Ahaw (Knowlton 2010:72). We follow Timothy Knowlton's (2010) translations of these texts (see Appendix 3.2).

In evaluating the content of the Chilam Balam creation stories, it is important to keep in mind that the Chilam Balam narratives cannot be seen as preserving prehispanic texts in an unadulterated form, any more than certain codical texts can be viewed as being purely Classic period in origin. Nevertheless, there are a number of specific correspondences that can be attributed to a common cultural heritage.

What, then, can be said of the Popol Vuh? Despite the geographic distance separating the Guatemalan highlands from the northern Maya lowlands, we consider it an important source for our analysis, in that much of its mythological content (included

in the first two sections of the manuscript) seems to elaborate on a mythological tradition common to the Classic period Maya lowlands. Like parts of the Books of Chilam Balam, it has been suggested that the narrative known to us as the Popol Vuh was copied from one or more prehispanic hieroglyphic texts by native scribes (Taube 1993a:22; D. Tedlock 1996:25–30). Internal evidence suggests that the original alphabetic manuscript was compiled between 1554 and 1558 in Santa Cruz del Quiché (formerly Utatlán), and later taken to Chuvila, now called Chichicastenango (Christenson 2007:36–39). In the early eighteenth century, the parish priest of Chichicastenango, Francisco Ximénez, was shown the sixteenth-century manuscript and given permission to copy it (Christenson 2007:39–40). His copy and the Spanish translation he provided are housed in the Newberry Library in Chicago; the whereabouts of the original sixteenth-century manuscript is unknown, although Christenson (2007:40) believes that it may still be in Chichicastenango.

Another source that is largely contemporary with the Popol Vuh, but from a different cultural milieu, is Diego de Landa's *Relación de las cosas de Yucatán*, dated to approximately 1566. Landa's text, written after the Franciscan priest was recalled to Spain to account for his actions during the 1562 auto-de-fé in Maní, has been shown to be the work of several authors (Restall and Chuchiak 2002). Although Landa was in close contact with several native Maya speakers, the manuscript is heavily biased by his Catholic training and Eurocentric view of the world. Nevertheless, it does represent our primary source of information concerning a number of rituals celebrated by the Postclassic Maya of Yucatán, including the ceremonies associated with the eighteen months of the year and the rituals that marked the time of transition (Wayeb) from one year to the next. In addition, Landa discusses a number of Maya deities, many of whom are depicted in the Maya codices.

Ethnographic research over the past 150 years also provides an important source of information about Maya deities, creation stories, and other mythological episodes (e.g., McGee 1990; Redfield and Villa Rojas 1934; Thompson 1930, 1970b). Taking into account the five or more centuries that separate the Postclassic Maya from contemporary cultures, as well as conscious and unconscious efforts to eradicate indigenous religious practices, it is surprising to find so many examples of correspondence that can be documented between contemporary Maya rituals and beliefs and those depicted in the Postclassic codices.

Content of the Maya Codices

Each of the Maya codices is composed of a number of "almanacs" that relate deities, activities, and prophecies or prognostications to dates in one or more of the systems for reckoning time used by the Postclassic Maya. The most common system of dating found in Maya almanacs involves the 260-day *tzolk'in* calendar, which pairs twenty named days with the numbers 1 through 13, beginning with 1 Imix, then 2 Ik', 3 Ak'bal,

Figure 1.1. Almanac on D. 6b–7b containing four frames, each with an interval of '13'. After Förstemann (1880).

4 K'an, and so forth, until reaching 13 Ahaw, the 260th day (for a listing of all 260 days of the tzolk'in calendar, see Appendix 1.1). Occasionally, dates in the 365-day solar calendar (the *haab*) are also given, although this occurs much less commonly (see Vail 2002; Vail and V. Bricker 2004). Haab dates associated with almanacs are found most commonly in the Madrid Codex; only two are currently known from the Paris Codex, and two from the Dresden (in contexts other than those associated with astronomical tables).

Another format, used specifically in the Dresden Codex, involves the presentation of information associated with dates in absolute time, which can be calculated from prefaces with the relevant information (found, e.g., on pages 24, 51–52, 61–64, and 69–71). These tables are concerned with seasonal and astronomical phenomena, including the stations of Venus (i.e., where the planet is located in the sky on certain dates), solar and lunar eclipses, and the positions of the constellations in the night sky. Like the format used in almanacs, they generally include columns of information (herein termed frames) that interrelate calendrical information, a text, and often a picture.

To understand the inner workings of Maya almanacs, we examine an example from the middle register on pages 6–7 of the Dresden Codex, or on D. 6b–7b (Figure 1.1).[12] The almanac contains four frames that can be segmented into the following sections: a hieroglyphic text at the top, a pair of bar-and-dot numbers (one black and one red) below this, and a picture. The first frame is preceded by a column of day glyphs with a coefficient at the top.

The hieroglyphic captions associated with each of the almanac's four frames begin with the same two collocations—*tz'unun* 'hummingbird' and *u chich* 'is his proph-

Figure 1.2. Symbols for 0, 1, 5, and 20. Drawing by Gabrielle Vail.

ecy' (see http://hieroglyphicresearch.org/Documentation/UPClink1.html). Glyphic texts in the Maya codices are most commonly read in paired columns, as is true here, but they are sometimes read in single columns as well. The subject of the clause is found in the third glyph block in each caption: the maize god Nal, the death god Kimil, the male creator Itzamna, and the Hero Twin Yax Balam (for a further discussion of these deities and their associations, see Chapter 3 and Appendix 3.1). Of the four figures pictured, only the last two are explicitly shown with hummingbird imagery (Itzamna wears a hummingbird beak, and a hummingbird hovers in the air upside down in front of Yax Balam).

1

The final collocation in each clause represents a title referring to the deity named, or an augural compound. The maize god is associated with *ox wi'il* 'abundance of food'; the death god with *ah kimil* 'dead person'; Itzamna with a title that has not been adequately deciphered;[13] and Yax Balam with the prognostication *u muuk* 'his omen', or more commonly 'his evil omen'.

Frames in Maya almanacs, rather than being associated with one specific date, are most often associated with four, five, or ten different dates, based on how many day glyphs occur in the column preceding the first frame of the almanac. On D. 6b–7b the initial column includes five tzolk'in day glyphs (K'an, Kib, Lamat, Ahaw, and Eb) and a red '10' (Figure 1.2 shows the four symbols that are used in the codices to represent numbers, with dots signaling '1' and bars '5').

The *ah k'in* 'daykeeper' or *chilam* 'prophet' using this almanac would add the black bar-and-dot numbers to the red ones to determine the dates associated with each frame. To begin, the first date in the tzolk'in column (10 K'an) is associated with the picture and text in frame 1 of the almanac. The number of days one counts forward to reach the next date (that associated with frame 2) is indicated by the black '13' at the left of the first frame. Reference to Appendix 1.1 indicates that adding 13 days to 10 K'an (day number 244) brings one to the date 10 Kaban (day number 257). The scribe who drafted the almanac indicated the '10' in red above the first picture. This date (10 Kaban) refers to the second frame of the almanac.

A quick glance through the remaining bar-and-dot numbers indicates that each of the black numbers (what are called distance numbers) are '13'. This is perhaps the most common means of dividing up time in Maya almanacs: having four frames, each associated with intervals of '13' (Aveni et al. 1995). It serves to segment the universe into four equal parts, a concept that was vitally important to prehispanic Maya and other Mesoamerican peoples, as we discuss in detail in the chapters that follow.

Table 1.1. 260-day structure of D. 6b–7b

A *10 + 13*	*B* *10 + 13*	*C* *10 + 13*	*D* *10 + 13*
K'an	Kaban	Ok	Ak'bal
Kib	Muluk	Ik'	Men
Lamat	Imix	Ix	Manik'
Ahaw	Ben	Kimi	Kawak
Eb	Chikchan	Etz'nab	Chuwen

To complete the calculations for determining the calendrical structure of the almanac, it is necessary to add the black '13' above the second picture to the previous date (10 Kaban), to reach 10 Ok (day number 10).[14] The first part of the date (the '10') is represented next to the black '13' above the picture in the second frame. Like those previously discussed, this date would be associated with the frame that follows (frame 3). The same procedure is followed to determine the date associated with the last of the almanac's four frames—that is, the black '13' above the picture in the third frame is added to the previous date (10 Ok) to reach the next date, 10 Ak'bal (day number 23). This is indicated in the almanac by the red '10' placed above the third picture.

Although we have calculated dates for each of the almanac's four frames, there is still an outstanding distance number (a black '13') above the picture in the fourth frame, which is followed by a red '10'. This indicates that it is necessary to add 13 to the 10 Ak'bal date associated with the fourth frame, bringing us to 10 Kib (day number 36). The '10' associated with this date is represented in two places—above the fourth picture, and at the top of the initial column of tzolk'in days, where it can be associated with the Kib glyph in the second position in the column. This date, like the 10 K'an above it, is associated with the first frame of the almanac (but here corresponding to the second row; see Table 1.1 and http://www.hieroglyphicresearch.org/Documentation/UPClink2.html).


2

Calculating the almanac's remaining calendrical structure results in five dates being associated with each frame. Those corresponding with the first frame (10 K'an, 10 Kib, 10 Lamat, 10 Ahaw, and 10 Eb) are explicitly given at the beginning of the almanac (see column A in Table 1.1), whereas the others must all be calculated using the methodology discussed above. Although the scribe could have placed a column like that at the beginning of the almanac in front of each of the frames (as is done, for example, on D. 31b–35b; see Figure 4.15), what we see represented in this example is the format most commonly used for codical almanacs.

The question of why five different dates were associated with each frame is one that has been difficult to answer until recently, when Vail proposed a new model for interpreting almanacs that refer to the same activity from frame to frame but incorporate different deities. Based on evidence from the Madrid Codex (see Vail 2002, 2004), Vail

demonstrated that rather than referring to events separated by an interval of days in the 260-day calendar, these events can be better understood as separated by a number of *haab* 'years' in the Calendar Round.

The haab is a solar calendar of 365 days that consists of 18 months (Pop, Wo, Sip, Sotz', Tzek, Xul, Yaxk'in, Mol, Ch'en, Yax, Sak, Keh, Mak, K'ank'in, Muwan, Pax, K'ayab, Kumk'u), each with 20 days, and a final month of five days (Wayeb). The Calendar Round refers to the pairing of dates in the 260-day tzolk'in and 365-day haab to create a cycle of 52 years. The initial date of the pairing was established based on associating 4 Ahaw (the tzolk'in date) and 8 Kumk'u (the haab date) with the completion of the 13 *bak'tun* cycle, which serves as the base date for "era" calculations in the Maya calendar—13.0.0.0.0 4 Ahaw 8 Kumk'u. The Long Count calendar incorporates a count of *k'in* 'days', 20-day months (*winal*), 360-day years (*tun*), 20-tun periods (*k'atun*), and 20-k'atun periods (*bak'tun*). The completion of the thirteenth bak'tun is followed by the date 0.0.0.0.1 5 Imix 9 Kumk'u, then 0.0.0.0.2 6 Ik' 10 Kumk'u, 0.0.0.0.3 7 Ak'bal 11 Kumk'u, and so on. A particular Calendar Round date (such as 4 Ahaw 8 Kumk'u or 5 Imix 9 Kumk'u) repeats only after 18,980 days, or 52 haabs.


3

Recent studies of the Maya codices suggest the importance of this 52-year period in the ritual life of the Postclassic Maya (Hernández and Vail 2010; Vail 2002, 2004). The 52-year cycle is highlighted, for example, in almanacs in the Dresden, Madrid, and Paris codices that focus on yearbearer rituals (those marking the transition from one year to the next, celebrated during the final five days of the old year and the first day of the new year). These almanacs occur on pages 25–28 of the Dresden Codex (http://www.hieroglyphicresearch.org/Documentation/UPClink3.html), 34–37 of the Madrid Codex (http://www.hieroglyphicresearch.org/Documentation/UPClink4.html), and 19–20 of the Paris Codex (http://www.hieroglyphicresearch.org/Documentation/UPClink5.html) (discussed in Chapters 4 and 8). The 52-year cycle, and the yearbearer ceremonies themselves, are segmented into four quarters, each consisting of 13 years. From year to year, one moves between each quarter, returning to the starting point after five years ($4 \times 13 = 52$).


4

As we have seen, the almanac on D. 6b–7b highlights dates at 13-day intervals. As demonstrated by Vail (2002, 2004), the interval of '13' may refer to years (haab) as well as days in almanacs such as this one, meaning that moving through the almanac's four frames completes a 52-year (as well as a 260-day) cycle. The way this works is as follows.

By focusing on only one day in each column, the scribe could have chosen dates that were separated by intervals of 13 years (haab). On D. 6b–7b, for example, the date in the first column, 10 K'an, is a yearbearer, meaning that it can be paired with the haab date 1 Pop in the Mayapán calendar in use during the Late Postclassic period.[15] Adding 13 haab to 10 K'an [1 Pop] means that the next frame would be associated with 10 Muluk [1 Pop] (boldfaced in the B column in Table 1.2). Thirteen haab after this is 10 Ix [1 Pop] (in column C), followed by 10 Kawak


5

Table 1.2. 52-year structure of D. 6b–7b

A *10 + 13*	*B* *10 + 13*	*C* *10 + 13*	*D* *10 + 13*
K'an	Kaban	Ok	Ak'bal
Kib	**Muluk**	Ik'	Men
Lamat	Imix	**Ix**	Manik'
Ahaw	Ben	Kimi	**Kawak**
Eb	Chikchan	Etz'nab	Chuwen

Note: The dates in boldface are those highlighted by the fifty-two-year structure of the almanac (i.e., by treating the distance numbers as counts of years, rather than days).


6

[1 Pop] (in column D). This method of reading almanacs, despite the fact that the haab date is not explicitly given by the scribe, makes a great deal of sense, given the emphasis noted by Landa and other chroniclers on the ceremonies performed during particular months in the haab calendar (Gates 1978; Tozzer 1941). Indeed, interpreting the hummingbird as a prophecy of the Pop/yearbearer rituals receives support from the page relating to the 10 Kawak rituals on M. 34, where a hummingbird is shown perched on top of the vessel containing offerings of tortillas and sprouting maize. In the almanac on D. 6b–7b under discussion, the hummingbird is explicitly pictured in the frame that depicts Yax Balam and refers to 10 Kawak years.

A number of different variations on the standard reading order of almanacs occur. Those that are most relevant to our discussion include almanacs with one central picture, in which the distance numbers are scattered around the image (see Figure 6.10 and http://www.hieroglyphicresearch.org/Documentation/UPClink6.html), called "circular almanacs" in the literature; those with more than one set of distance numbers and/or coefficients associated with each frame (see Figure 7.31 and http://www.hieroglyphicresearch.org/Documentation/UPClink7.html); and those with each of the dates given explicitly (see Figure 1.3 and http://www.hieroglyphicresearch.org/Documentation/UPClink8.html).


7

The majority of almanacs that are ostensibly organized according to the 260-day calendar can be interpreted as portraying events and rituals associated with the haab, which served as an agricultural and festival calendar. Other systems of dating were also used, however, based on the units of the Long Count calendar. Long Count dates served to fix astronomical events in absolute time (see discussion of the Venus table in Chapter 7), whereas tun and k'atun dates were used in several almanacs to record events and prophecies for those specific periods of time (the tun being 360 days and a k'atun corresponding to 20 tun, or approximately 20 years). Examples of tun dates may be found on pages 1–13 or 2–14 of the Paris Codex (pages 1 and 12 are eroded, so it is difficult to know where the sequence begins and ends), in conjunction with a series of pictures of deities (primarily the maize god) and


8

Figure 1.3. Almanac on D. 42c–45c. Each of the four frames refers to a particular direction (south, east, west, north) and contains references to multiple tzolk'in dates at the top of each page. After Förstemann (1880).

animals seated on haab glyphs to signify the prophecy of the year. In reference to tun 2 Ahaw (P. 7a), for example, we see the maize god seated with his arms bound behind his back, suggesting his status as a captive intended for sacrifice (see http://www.hieroglyphicresearch.org/Documentation/UPClink9.html). In the scene representing the following tun (11 Ahaw) on P. 8a, he has a closed eye, indicating his death (http://www.hieroglyphicresearch.org/Documentation/UPClink10.html).[16]

9

The majority of almanacs in the codices concern the prophecies for the rains and the maize crop, based on specific calendrical data and the importance of these dates in mythological episodes relating to primordial time. The maize/maize god undergoes death when he is buried within the earth (represented by an Underworld journey in the mythology), a rebirth when the first seeds sprout (his resurrection in the Underworld), and a second death when the plant is harvested in the late fall. These events are personified in the person of the maize god, who represents the plant itself in indigenous sources from both the prehispanic and colonial periods.

10

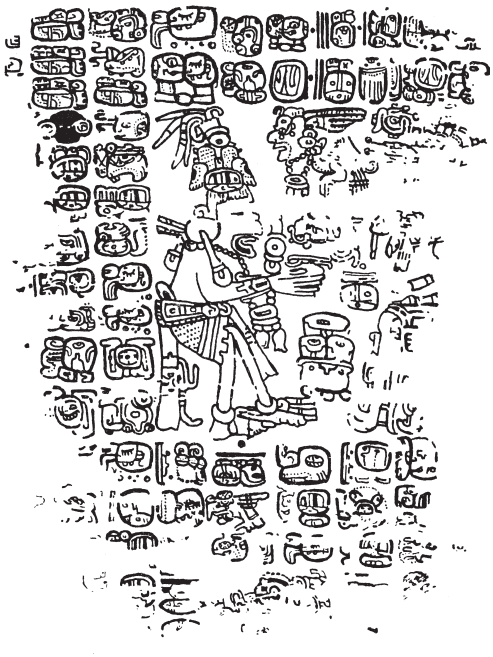

Figure 1.4. Rituals on P. 4 corresponding to K'atun 11 Ahaw and involving the transfer of a K'awil effigy or headdress and the presentation of offerings. After Villacorta C. and Villacorta (1976).

11

On the same pages as the tun series in the Paris Codex, prophecies are given for a longer cycle of time, that relating to the k'atun period. Page 2 refers to k'atun 2 Ahaw, page 3 to k'atun 13 Ahaw (mistakenly written as 18), page 4 to k'atun 11 Ahaw, and so on.[17] On the pages with the least erosion, the details of each scene are clearly displayed (Figure 1.4 and http://www.hieroglyphicresearch.org/Documentation/UPClink11.html). They include the presentation of an effigy of the god K'awil's head by a particular deity (such as the maize god or the rain god) to a figure seated on a throne;[18] the offering of food (and sometimes other objects) in a vessel between the two figures; the presence of a bird hovering in the air over the scene;[19] and the occurrence of a throne formed from the bound body of a crocodilian paired with a skyband, on which the second figure on each page is seated. A comparison to the iconography and texts of Classic period monuments clearly suggests that these scenes refer to the "accession" of the figures seated on the thrones, who may be assumed to have been the ruling "lords" for the k'atun period highlighted on each particular page of the almanac.

12

The hieroglyphic texts associated with the k'atun almanac refer to a series of deities, associated prognostications, and sometimes important astronomical events that affected the prophecies for a particular k'atun. For example, for K'atun 7 Ahaw on P. 6, the tenth tun of the k'atun is said to be characterized by *wi'ih k'ay ix kab nal k'intun haabil*, "Hunger is the song of Lady Earth Maize / Place; [there is] drought" (see http://www.hieroglyphicresearch.org/Documentation/UPClink12.html).

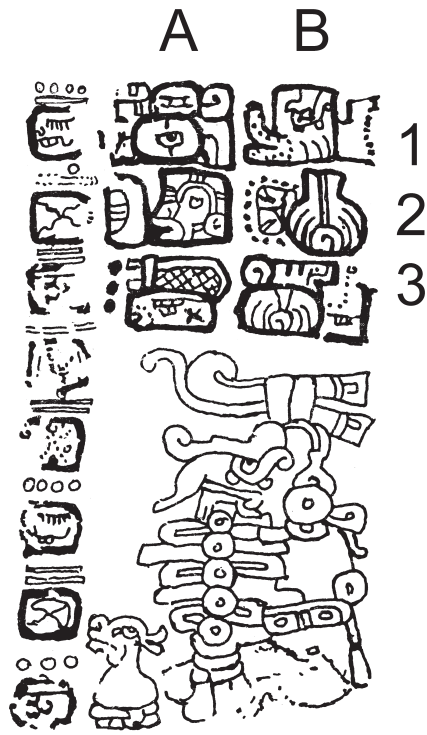

Figure 1.5. Frame from M. 69b showing the rain god Chaak seated in front of a deer offering. The glyphic collocation at A3 includes a *tun* glyph with a coefficient of 3 and a /tu/ prefix. After Villacorta C. and Villacorta 1976 [1930].

The k'atun pages provide one of the few contexts in the codices where distance numbers are represented in a format similar to those on Classic period monuments: on P. 6, for example, the compound TXII.III:528 indicates a count of 3 tuns and 12 winals, corresponding to a period of approximately 3 years and 12 months.

13

In the almanac on pages 65–72 and 73b of the Madrid Codex (Figure 1.5), counts of time are expressed by coefficients attached to haab glyphs (T548). They frequently take a /tu/ prefix, however, making it difficult to determine whether the 365-day year or the 360-day year was intended.[20] In one of the almanac's frames, however, the /tu/ is prefixed to a *tun* (T528) glyph, suggesting that this reading may have been intended in the other frames as well (see http://www.hieroglyphicresearch.org/Documentation/UPClink13.html).

The beekeeping section of the Madrid Codex also includes an occasional tun or winal count (see http://www.hieroglyphicresearch.org/Documentation/UPClink14.html), and the almanac on M. 49c–50c (Figure 1.6) highlights *lahuntun* dates, each corresponding to a period of ten tuns, which are designated by their Ahaw day names. The first of these dates corresponds to the 1 Ahaw at the top of the initial tzolk'in column, followed by 13 Ahaw (eroded) in the cartouche (also

14

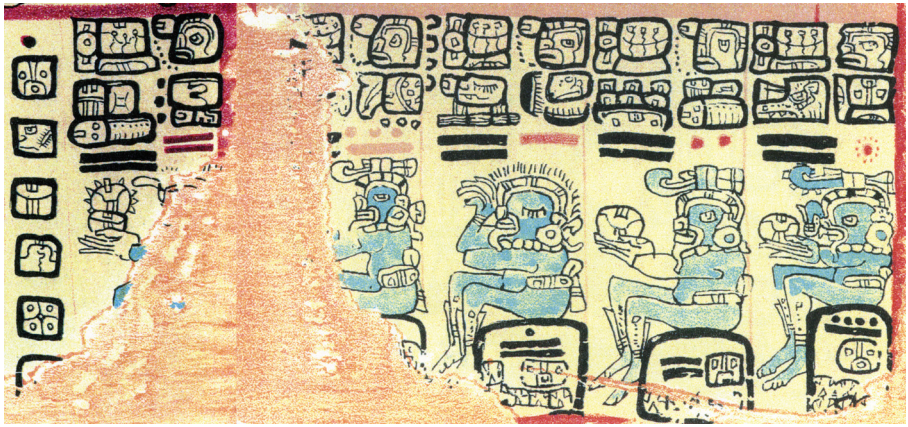

Figure 1.6. Almanac on M. 49c–50c containing five separate frames, each showing the generic god K'uh seated on a cartouche with a numbered Ahaw glyph. After Brasseur de Bourbourg (1869–1870).

15

eroded) beneath the deity figure in the first frame; 12 Ahaw (eroded) in the second frame; 11 Ahaw in the third frame; 10 Ahaw in the fourth frame; and 9 Ahaw in the fifth frame (see http://www.hieroglyphicresearch.org/Documentation/UPClink15.html).

As mentioned previously, there are also a number of explicit haab dates recorded in the context of tzolk'in almanacs in the Madrid Codex. These dates serve to anchor the event or activity pictured to a particular month of the year; moreover, they can sometimes be linked to the ceremonies described for particular months in Landa's *Relación de las cosas de Yucatán* (see Gates 1978; Tozzer 1941). Examples include references to the haab date 1 Yaxk'in on M. 99b–100b (see http://www.hieroglyphicresearch.org/Documentation/UPClink16.html) and to the month Kumk'u in the almanac on M. 65–72 and 73b (see Figure 1.7); on M. 73b, the full Calendar Round date 13 Ahaw 13 Kumk'u occurs at A1-B1 (see V. Bricker 1997; Vail and V. Bricker 2004).

16

Studies of the Dresden, Madrid, and Borgia group codices demonstrate that cultural contacts were an important part of the process of creating divinatory manuscripts (Hernández and V. Bricker 2004; Just 2004; Vail and Aveni 2004:chap. 1; Vail and Hernández 2010). The following chapter provides an overview of the highland Mexican codices and mythological traditions from that region, and Chapter 3 includes a discussion of Maya creation stories. This material provides the foundation necessary for our analysis of the mythological content of the Maya codices presented in subsequent chapters.

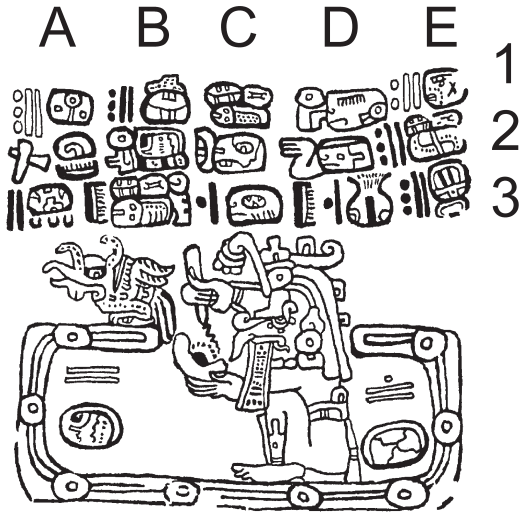

Figure 1.7. Frame from M. 73b showing the rain god Chaak associated with a cenote. The first two glyph blocks of the hieroglyphic text (A1 and B1) include the Calendar Round date 13 Ahaw 13 Kumk'u. After Villacorta C. and Villacorta 1976 [1930].

Appendix 1.1. The 260-Day Ritual Calendar (Tzolk'in)

Day	*Tzolk'in*	*Date*
1	1	Imix
2	2	Ik'
3	3	Ak'bal
4	4	K'an
5	5	Chikchan
6	6	Kimi
7	7	Manik'
8	8	Lamat
9	9	Muluk
10	10	Ok
11	11	Chuwen
12	12	Eb
13	13	Ben
14	1	Ix
15	2	Men
16	3	Kib
17	4	Kaban
18	5	Etz'nab
19	6	Kawak
20	7	Ahaw
21	8	Imix
22	9	Ik'
23	10	Ak'bal
24	11	K'an
25	12	Chikchan
26	13	Kimi
27	1	Manik'
28	2	Lamat

continued on next page

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
29	3	Muluk
30	4	Ok'
31	5	Chuwen
32	6	Eb
33	7	Ben
34	8	Ix
35	9	Men
36	10	Kib
37	11	Kaban
38	12	Etz'nab
39	13	Kawak
40	1	Ahaw
41	2	Imix
42	3	Ik'
43	4	Ak'bal
44	5	K'an
45	6	Chikchan
46	7	Kimi
47	8	Manik'
48	9	Lamat
49	10	Muluk
50	11	Ok
51	12	Chuwen
52	13	Eb
53	1	Ben
54	2	Ix
55	3	Men
56	4	Kib
57	5	Kaban
58	6	Etz'nab
59	7	Kawak
60	8	Ahaw
61	9	Imix
62	10	Ik'

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
63	11	Ak'bal
64	12	K'an
65	13	Chikchan
66	1	Kimi
67	2	Manik'
68	3	Lamat
69	4	Muluk
70	5	Ok
71	6	Chuwen
72	7	Eb
73	8	Ben
74	9	Ix
75	10	Men
76	11	Kib
77	12	Kaban
78	13	Etz'nab
79	1	Kawak
80	2	Ahaw
81	3	Imix
82	4	Ik'
83	5	Ak'bal
84	6	K'an
85	7	Chikchan
86	8	Kimi
87	9	Manik'
88	10	Lamat
89	11	Muluk
90	12	Ok
91	13	Chuwen
92	1	Eb
93	2	Ben
94	3	Ix
95	4	Men
96	5	Kib

continued on next page

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
97	6	Kaban
98	7	Etz'nab
99	8	Kawak
100	9	Ahaw
101	10	Imix
102	11	Ik'
103	12	Ak'bal
104	13	K'an
105	1	Chikchan
106	2	Kimi
107	3	Manik'
108	4	Lamat
109	5	Muluk
110	6	Ok
111	7	Chuwen
112	8	Eb
113	9	Ben
114	10	Ix
115	11	Men
116	12	Kib
117	13	Kaban
118	1	Etz'nab
119	2	Kawak
120	3	Ahaw
121	4	Imix
122	5	Ik'
123	6	Ak'bal
124	7	K'an
125	8	Chikchan
126	9	Kimi
127	10	Manik'
128	11	Lamat
129	12	Muluk
130	13	Ok

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
131	1	Chuwen
132	2	Eb
133	3	Ben
134	4	Ix
135	5	Men
136	6	Kib
137	7	Kaban
138	8	Etz'nab
139	9	Kawak
140	10	Ahaw
141	11	Imix
142	12	Ik'
143	13	Ak'bal
144	1	K'an
145	2	Chikchan
146	3	Kimi
146	4	Manik'
148	5	Lamat
149	6	Muluk
150	7	Ok
151	8	Chuwen
152	9	Eb
153	10	Ben
154	11	Ix
155	12	Men
156	13	Kib
157	1	Kaban
158	2	Etz'nab
159	3	Kawak
160	4	Ahaw
161	5	Imix
162	6	Ik'
163	7	Ak'bal
164	8	K'an

continued on next page

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
165	9	Chikchan
166	10	Kimi
167	11	Manik'
168	12	Lamat
169	13	Muluk
170	1	Ok
171	2	Chuwen
172	3	Eb
173	4	Ben
174	5	Ix
175	6	Men
176	7	Kib
177	8	Kaban
178	9	Etz'nab
179	10	Kawak
180	11	Ahaw
181	12	Imix
182	13	Ik'
183	1	Ak'bal
184	2	K'an
185	3	Chikchan
186	4	Kimi
187	5	Manik'
188	6	Lamat
189	7	Muluk
190	8	Ok
191	9	Chuwen
192	10	Eb
193	11	Ben
194	12	Ix
195	13	Men
196	1	Kib
197	2	Kaban
198	3	Etz'nab

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
199	4	Kawak
200	5	Ahaw
201	6	Imix
202	7	Ik'
203	8	Ak'bal
204	9	K'an
205	10	Chikchan
206	11	Kimi
207	12	Manik'
208	13	Lamat
209	1	Muluk
210	2	Ok
211	3	Chuwen
212	4	Eb
213	5	Ben
214	6	Ix
215	7	Men
216	8	Kib
217	9	Kaban
218	10	Etz'nab
219	11	Kawak
220	12	Ahaw
221	13	Imix
222	1	Ik'
223	2	Ak'bal
224	3	K'an
225	4	Chikchan
226	5	Kimi
227	6	Manik'
228	7	Lamat
229	8	Muluk
230	9	Ok
231	10	Chuwen
232	11	Eb

continued on next page

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
233	12	Ben
234	13	Ix
235	1	Men
236	2	Kib
237	3	Kaban
238	4	Etz'nab
239	5	Kawak
240	6	Ahaw
241	7	Imix
242	8	Ik'
243	9	Ak'bal
244	10	K'an
245	11	Chikchan
246	12	Kimi

Appendix 1.1—continued

Day	*Tzolk'in*	*Date*
247	13	Manik'
248	1	Lamat
249	2	Muluk
250	3	Ok
251	4	Chuwen
252	5	Eb
253	6	Ben
254	7	Ix
255	8	Men
256	9	Kib
257	10	Kaban
258	11	Etz'nab
259	12	Kawak
260	13	Ahaw
		{Return to day 1}

NOTES

1. A fourth codex, named the Grolier, was reportedly found in a cave in Chiapas (Carlson 1983; Coe 1973). If authenticated as prehispanic in date, the differences in style between this manuscript and the other three might well be attributed to different proveniences. Several studies have called its authenticity into question, however (Baudez 2002; Milbrath 2002; Thompson 1975).

2. We adopt the 584,283 correlation constant for converting Maya Long Count dates to corresponding dates in the Gregorian calendar. Some scholars favor a constant of 584,285. See Aveni (2001, 207–210, Appendix A) and H. Bricker and V. Bricker (2011:chap. 4) for a more thorough discussion of the correlation constant issue.

3. A skyband consists of a row of glyphs that pertain to objects or events in the sky, such as *k'in* 'sun', *ek'* 'star', or *uh* 'moon'.

4. We follow Sharer and Traxler's (2006:98) chronology:

Late Preclassic: 400 B.C.–A.D. 100
Terminal Preclassic: A.D. 100–250
Early Classic: A.D. 250–600
Late Classic: A.D. 600–800
Terminal Classic: A.D. 800–900/1100*
Postclassic: A.D. 900/1100–1500*

* The earlier dates refer to sites in the southern lowlands, whereas the later dates correspond to the northern lowlands.

5. The pages were not numbered consecutively when the codex was originally studied, because it had become separated into two parts. It was only later that the correct manner of reuniting them was discovered.

6. Page 2 of the Madrid Codex contains an almanac that appears to be cognate to the Mars table in the Dresden Codex (see http://www.hieroglyphicresearch.org/Documentation/UPClink17.html), but it is too eroded to allow the possibility of reconstructing its calendrics, and the preceding page is so heavily damaged that it can offer no additional information to aid our understanding of M. 2a.

17

7. There are few exact cognates, although many feature the same deities and have a similar calendrical structure and highlight the same themes (Aveni 2004; Aveni et al. 1995, 1996). This is suggestive of the tradition of copying from older documents that periodically required updating.

8. Aglio's drawings are currently part of the Ayer Collection of the Newberry Library in Chicago (Glass and Robertson 1975: 179).

9. Other sites with Late Postclassic murals from the northern Maya lowlands include Cobá, Rancho Ina, San Ángel, Tancah, and Xelhá (Taube 2010:145).

10. Several other manuscripts are named for the scholars who collected them, including Juan Pío Pérez (the Códice Pérez [n.d.]) and Sylvanus Morley (the Morley Manuscript).

11. A *k'atun* is a period of approximately twenty years that served as a means of ordering events in the Maya calendar. Each k'atun is named for the day on which it ends, beginning with 13 Ahaw, then 11 Ahaw, 9 Ahaw, and so forth. There are thirteen such periods, which comprise a cycle of 256 years.

12. We follow the convention established by earlier scholars of labeling each register with a letter designation, beginning at the top of the page with "a." We use the following abbreviations to refer to pages in the respective codices: D., Dresden; M., Madrid, P., Paris.

13. This may be read as *nah? nikil* 'first flower' (Vail and Hernández 2011), although epigraphers are still debating a number of other possibilities.

14. The 260-day calendar involves a continuous cycle, meaning that the day after 13 Ahaw (day number 260) is 1 Imix (day number 1); see Appendix 1.1.

15. In the system that was used prior to this, 10 K'an would be paired with 2 Pop, 9 Ak'bal with 1 Pop, and 8 Ik' with 0 Pop. This is the system used in the yearbearer pages in the Dresden Codex, as compared with the Mayapán system used on the Madrid yearbearer pages.

16. 2 Ahaw (day 80 in the tzolk'in) plus 360 days leads to 11 Ahaw (day 180 in the tzolk'in). The count returns to 2 Ahaw after 13 tun periods.

17. A k'atun period, like a tun period, is named for the day on which it ends; this always falls on a day Ahaw. The k'atun cycle incorporates thirteen 7,200-day periods, for a total of approximately 256 years. Astronomical and other lines of evidence have allowed Harvey and Victoria Bricker (2011:357–359) to date the Paris k'atun pages to the fifth through eighth centuries.

18. K'awil is a multifaceted deity who may be linked to providing sustenance (his name means *k'aa* 'abundance of' *wi'il* 'sustenance') through his powers as a god of lightning; see discussion in Chapter 3.

19. *Mut*, the word meaning 'bird', also refers to 'omen' or 'prognostication'.

20. In addition to representing a phonetic complement (i.e., the first syllable) to the *tun* glyph, the /tu/ here may serve as a numeral classifier (a word placed between a number and a noun to indicate what category of object is being referenced). If the /tu/ is intended as a numeral classifier here, either a tun or haab reading for T548 would be possible.