Copyright

by

David Matthew Schaefer

2011

The Thesis Committee for David Matthew Schaefer Certifies that this is the approved version of the following thesis:

"It was t	he Doing of the '6-Sky' Lord":
An Investigation	on of the Origins and Meaning of the
Three Stones	of Creation in Ancient Mesoamerica
	APPROVED BY
	SUPERVISING COMMITTEE:
Supervisor:	Brian Stross
	DHAH STOSS

Julia Guernsey

"It was the Doing of the '6-Sky' Lord": An Investigation of the Origins and Meaning of the Three Stones of Creation in Ancient Mesoamerica

by

David Matthew Schaefer, B.A.

Thesis

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Arts

The University of Texas at Austin

December 2011

Dedication

In honor of Mesoamerica's extraordinary daykeeping and timekeeping traditions.

And, of course, to my parents.

Acknowledgements

This investigation grew from an experience of living among the modern Maya for about seven years in the first decade of the new millenium, during which many fond hours were spent teaching in the classroom as well as shepherding students down Guatemala's less-traveled back roads. Seeing the Maya area in its authenticity from atop temples under starry skies and beside smoky, three-stone hearths within mountain abodes instilled a profound respect for the modern, indigenous peoples of Central America and the ancestors to whom they are related—I can only hope that this sentiment is communicated in the pages that follow. Like my experience in Guatemala, this study veers off the beaten path in an attempt to uncover the hidden and the sacred.

I am indebted to many influential people who led me to undertake this investigation and saw to its completion. Credit should be given to Dr. Nikolai Grube, whose enthusiastic portrayal of the underworld journey and rebirth of the Maize Lord during a workshop in Antigua Guatemala in 2005 convinced me to further explore this theme and attempt to reconstruct its chronology within this work. Dr. Judith Maxwell and the Kaqchikel-Mayan language program, *Oxlajuj Aj*, were also instrumental in the decision to pursue further studies. At the University of Texas, Dr. Brian Stross was tremendously supportive of my interest in addressing difficult questions regarding Mesoamerica's most ancient beliefs and provided excellent guidance. Dr. David Stuart was nothing short of the very best resource for the most current readings of Maya hieroglyphs, while Dr. Julia Guernsey recommended valuable perspectives and theory as to the best approaches to interpreting belief systems across large spans of time and between different cultural groups. I would also like to acknowledge the goals of Dr.

Charlie Hale and the Lozano Long Institute of Latin American Studies (LLILAS), whose encouragement of an interdisciplinary approach to problem solving, as well as a perspective which attempts to see "eye to eye" with indigenous sources of knowledge, are fundamental to the interpretations made herein.

To my family and friends, former and future students, and those in the Maya area who I have met along the way, I sincerely thank you for your inspiration.

Abstract

"It was the Doing of the '6-Sky' Lord":

An Investigation of the Origins and Meaning of the

Three Stones of Creation in Ancient Mesoamerica

David Matthew Schaefer, M.A.

The University of Texas at Austin, 2011

Supervisor: Brian Stross

The following work presents a hypothesis which identifies the origins and

meaning of an ancient Mesoamerican concept known as the three stones of creation.

Previous interpretations have tended to apply astronomical, spatial, or geographical

models, while many conclusions have been made on the basis of one Classic Maya

monument, Stela C of Quirigua. This thesis builds an argument for the temporal nature

of these "stones," used to metaphorically represent a sequence of separate units of time,

referred to as eras, ages, or creations. A primary goal is to demonstrate that Quirigua

Stela C provides in brief, summary form a chronology which is better defined through

inscriptions in the Cross Group at Palenque, and in a sequence of panels at Yaxchilan

containing beliefs about the origins of the ballgame.

In constructing an argument for the temporal nature of the three stones of

creation, every available context from a set of hieroglyphs mentioned in the Quirigua

vii

Stela C "creation" text—including *Na Ho Chan* ("First 5-Sky") and "6-Sky"—is discussed in Chapter 2. In Chapter 3, these glyphs are shown to aid in the organization of the deeper past within the Palenque and Yaxchilan mythologies. When compared chronologically and thematically, these sites seem to point to the 24th century B.C.E. as the important termination of a time period (i.e., the planting of a creation stone) related to a mythic complex involving the death and underworld journey of the Maize Lord, followed by his resurrection, emergence, and/or accession to power.

Key questions addressed include the antiquity of these beliefs and where the metaphors used to arrange time observed among the Classic Maya originate. In Chapter 4, earlier expressions of this time ideology are interpreted through iconographic conventions, ritual deposits, and monumental architecture at the Olmec site of La Venta. Similarly, Chapter 5 proposes that the Humboldt Celt, the earliest known example of the three stones of creation, arranges units of time into a sequence. These and other interpretations suggest the existence of an ancestral, Mesoamerican era-based time model to which later Postclassic, colonial, and contemporary beliefs, such as those expressed in the K'iche'-Mayan Popol Vuh, are fundamentally related.

Table of Contents

LIST OF FIGURES	xi
INTRODUCTION	1
CHAPTER 1: Approaching the Deeper Mesoamerican Past	8
Time as a Sequence of Eras, Ages, or Creations	8
4 Ajaw 8 Kumk'u Texts and the Start of the Long Count Calendar	16
Theories to Explain the Three Stones of Creation	18
Western and Classic Maya Conceptions of "Creation"	20
Where Written and Oral Traditions Seem to Meet	22
On the Issue of Disjunction.	27
CHAPTER 2: The Numbered Sky Glyphs	30
Chan te' Chan ("4-Sky")	32
Na Ho Chan ("First 5-Sky")	34
Ho Chan ("5-Sky")	45
Wak Chan ("6-Sky")	45
Bolon Chan ("9-Sky")	49
Lahun Chan ("10-Sky")	49
Lahchan Chan ("12-Sky")	50
Uxlahun Chan ("13-Sky")	50
"1-Sky-in-Hand"	51
Discussion of the Numbered Sky Glyphs	53
CHAPTER 3: The Three Stones of Creation at Palenque and Yaxchilan	57
Introduction to the Palenque Mythology	57
Mythic Narrative of the Maize Lord's Underworld Journey and Rebirth	166
The Challenge of Representing Double 9-Wind and "Second 5-Sky"	71
"6-Sky" and the Ordering of Time	76
Ux Ahal, the Myth of the Ballgame	79
Comparing the Palenque and Yaxchilan Mythologies	85

Continuity and Change in the Meaning of the Ballgame	88
CHAPTER 4: Preclassic Precursors to the Ordering of Time	
La Venta and the Organization of the Deeper Past	97
Massive Offerings: Mosaic Pavements 1-3	97
The Celts and Figurines of Offering 4	102
Crossed-Bands in Monumental Architecture at La Venta	105
Monument 19	112
Altars 4 and 5	115
CHAPTER 5: Revisiting the Humboldt Celt and Quirigua Stela C	
The Humboldt Celt, a Reconsideration	120
Quirigua Stela C, a Reconsideration	125
Conclusion	127
FIGURE CREDITS	
REFERENCES	141
VITA	166

LIST OF FIGURES

Figure 1: The Humboldt Celt and Quirigua Stela C
Figure 2: Map of Mesoamerica, with Sites Noted in the Text
Figure 3: Aztec Sun Stone, Emphasizing a Five-Era Model of Time11
Figure 4: Ancient Expressions of Postclassic and Colonial Period Beliefs14
Figure 5: Texts which Describe the Start of the Long Count Calendar17
Figure 6: Descriptions which Characterize 4 Ajaw 8 Kumk'u
Figure 7: Occurrences of the Numbered Sky Glyphs in Maya Writing31
Figure 8: Examples of the <i>Chan te' Chan</i> ("4-Sky") Glyph
Figure 9: Examples of the <i>Na Ho Chan</i> ("First 5-Sky") Glyph (Part I)35
Figure 10: Examples of the <i>Na Ho Chan</i> ("First 5-Sky") Glyph (Part II)40
Figure 11: Examples of the <i>Na Ho Chan</i> ("First 5-Sky") Glyph (Part III)42
Figure 12: Examples of the <i>Na Ho Chan</i> ("First 5-Sky") Glyph (Part IV)44
Figure 13: Examples of the <i>Wak Chan</i> ("6-Sky") Glyph
Figure 14: Other Numbered Sky Glyphs and Variants
Figure 15: Palenque Triad Gods—GI, GII, and GIII
Figure 16: Examples of Titles Given to the Palenque Triad Gods60
Figure 17: Altar-Thrones and Triadic Temples at Palenque
Figure 18: Timeline of 9-Wind Dates and Birth of "Bloodletter of the Snake" 64
Figure 19: Maize Lord Underworld Scenes with Paddler Deities
Figure 20: <i>K'an</i> in Underworld, Origin, and Emergence Scenes69
Figure 21: Proposed Chronological Origin of "II" and "two-Five" Entities71
Figure 22: Use of "two-Five" (":1" or "Seven") with Mythic Entities73

Figure 23: "6-Sky" and the Temple of the Cross	78
Figure 24: <i>Ux Ahal</i> Glyphs and Monument	81
Figure 25: Comparison of Palenque and Yaxchilan Mythologies	86
Figure 26: <i>K'an Ehb</i> Stairs at Coba	88
Figure 27: Connecting Time Concepts Between Mythologies	90
Figure 28: "The Dallas Plaque" from Ahuelican, Guerrero	94
Figure 29: La Venta Complex A Mosaic Pavements	98
Figure 30: Olmec Variants Depicting Possible Fusion of Time and Space	100
Figure 31: La Venta Offering 4	104
Figure 32: Crossed-Bands ("X") As an Olmec "Sky" and "Time" Symbol	110
Figure 33: Crossed-Bands Symbolism in La Venta Monuments	114
Figure 34: La Venta Altar 5	116
Figure 35: La Venta Altar 4	118
Figure 36: The Humboldt Celt and the Organization of Time	122

INTRODUCTION

This thesis presents a hypothesis which identifies and defines an ancestral Mesoamerican chronological system, synchronized with the Long Count calendar, which once organized the deeper past into a sequence of "stones," with each stone representing a separate unit of mytho-historical time. It proposes that forms of this ideology which survived through oral tradition and made their way into Colonial period documents—beliefs regarding the origin of modern humans, an underworld journey of heroes followed by the emergence of deified corn, and the symbolism of the ritual ballgame—can be traced through Classic Maya inscriptions and back to even earlier sources. With the passage of time, expressions of these ancient beliefs have evolved into forms which may appear independently invented, epitomized by the apparent discrepancy between a four-creations model of time in the Maya area and a five-creations model in Central Mexico (León-Portilla 1980: 40). Yet these traditions are not necessarily contradictory and, as demonstrated in this text, are explainable through an ancient Mesoamerican chronology known as the three stones of creation.

The three stones of creation are shown, herein, to organize the deeper past in Mesoamerica since at least the Middle Formative period, as evidenced by the Humboldt Celt (Fig. 1a), dated to about 900 B.C.E. (Reilly 1994; Freidel in Coe et al. 1995: 7; Schele in Coe et al. 1995: 108; Headrick 2007: 111). These "stones" possess a metaphorical quality much like stelae, stone monuments that were often erected by the

ancient Maya to mark the completion of time periods and which may have embodied the very concept of time (see Justeson and Matthews 1983; Stuart 1996). The three stones of creation formed the component parts of a logical, era-based system incorporating barand-dot numeration that was especially important to the chronological ordering of the distant past and of the legendary actions (including the births, sacrifices, and manifestations) of important deities.

It is a primary goal of this thesis to demonstrate that time was once arranged into two groups of three stones for a total of *six* stones according to an original, ancient Mesoamerican count which can be traced back to Olmec sources. It is the proposal that 4 Ajaw 8 Kumk'u, the start of the Long Count calendar, formed the "pivot" of this system, the point in time when a more ancient "first three stones" of time ended and a new sequence of three stones—identified as the three stones of creation—began. A propensity for arranging sacred entities into groups of "threes" is common in Mesoamerica (Rice 2007: 213) and seems to hearken back to Olmec times (Stross 1989).

This chronological sequence of stones has been difficult to identify for various factors as well as due to trends within Mesoamerican studies. Among them is the fact that this more ancient ideology has no clear and obvious correlate among the Postclassic, colonial, or contemporary Maya, as terminology used to organize this system was essentially lost by the Classic collapse. Even during the Classic period, several important post-4 Ajaw 8 Kumk'u dates, including that which defines the important setting of the first stone of creation, appear never to have been widely disseminated nor accessible to a vast majority of Classic Maya sites (among them Quirigua) which seem to be part of a

newer tradition which had inherited 4 Ajaw 8 Kumk'u, the start of the Long Count, as the only defined "anchor" in the depths of time.

Figure 1: The Humboldt Celt and Quirigua Stela C

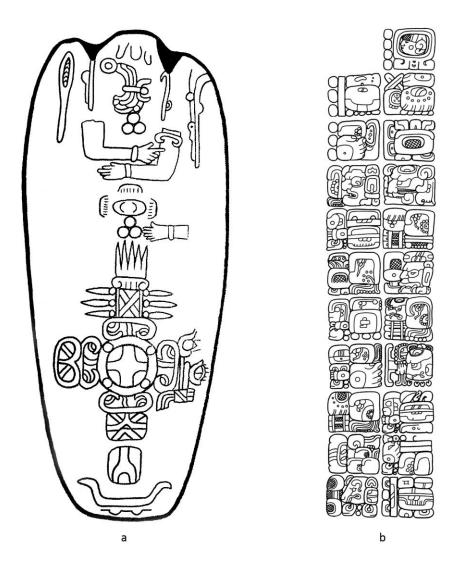


Fig. 1: (a) Humboldt Celt, circa 900 B.C.E., (b) Quirigua Stela C "creation" text describing the planting of the three stones of creation, 775 C.E.

In Chapter 1, the theoretical basis of this investigation is explained, and Postclassic, colonial, and contemporary understandings of the past—as seen in the Popol Vuh and the Five Suns tradition of Central Mexico—are compared to Classic Maya inscriptions which describe the beginning of the Long Count calendar. This "start date" known as 4 Ajaw 8 Kumk'u, accompanied by expressions including *ti' Chan Yax Ux Tuun? Nal*, or "Edge of Sky, First Three Stones/Hearth Place," has been studied through several theoretical approaches, including the popular lens of astronomical symbolism.

Conclusions have often been made on the basis of one monument which seems to describe the planting of the three stones of creation in detail, Quirigua Stela C, dated 775 C.E. (Fig. 1b). This monument contains the description of the setting of the first stone of creation at *Na Ho Chan* (or, "First 5-Sky") and ends with the phrase, "It was the doing of the *Wak Chan Ajaw*," or "6-Sky' Lord" (Freidel et al. 1993: 67; Looper 2003: 159).

Chapter 2 summarizes data on numbered sky glyphs, such as *Na Ho Chan* and "6-Sky" in Maya inscriptions. Important examples of the glyphs are used to make thematic connections across various sites of the Maya world. These contexts, as well as the abundance of certain numbered sky glyphs and the absence of others (e.g., "7-Sky") suggest a chronological function which provided a logical structure for the three stones of creation and for the deities involved in these "creation" events. These deities, such as *Chaak, K'awiil*, and the Jaguar God of the Underworld (JGU), occasionally carry the numbered sky with which they are associated as a title.

Chapter 3 demonstrates that the chronology of the three stones of creation is defined, with the aid of numbered sky glyphs, through recently-deciphered mythologies

at two Classic Maya sites on the western periphery of Classic lowland civilization close to the ancient Olmec heartland: Palenque and Yaxchilan. Inscriptions at these sites, when compared chronologically and thematically, seem to provide the structure to which the three stones of creation and the numbered sky glyphs observed throughout much of the Classic lowland area, correspond. I argue that the chronologies provided by these sites are not merely locally significant but, rather, speak to widely-held belief systems observed throughout Mesoamerica, including the "core myth" of an underworld journey followed by the emergence of deified corn found in the Colonial era, K'iche'-Mayan Popol Vuh and traceable to the recently-discovered, late Preclassic San Bartolo murals as well as in the mythic traditions of ancient Central Mexico. The chronologies provided by Palenque and Yaxchilan are shown to define, through Distance Numbers, the same stone-setting sequence which Quirigua Stela C provides only in brief and temporally-undefined, summary form.

In support of the interpretation that the Palenque and Yaxchilan mythologies speak to a larger belief system whose significance is not just local, a third "era date" which seems to be important at both of these sites dating to about 1000 B.C.E. is investigated through Olmec archaeology in Chapter 4. Because Olmec civilization was already well-established on the Gulf Coast by this time, the opportunity exists to investigate not only whether a similar time ideology existed among this earlier civilization, but if a change in time ideology at this particular time in history can be implied through archaeological investigation.

Chapter 4 focuses on the site of La Venta, containing the largest concentration of Olmec monumental architecture and considered an Olmec capital (González Lauck 1996: 73). Several Olmec stone monuments of the highest artistic achievement are interpreted to represent the same organization of time inherited and expressed by the Classic Maya. Additionally, a figurine assemblage and massive serpentine tile projects, which are believed to have been constructed and then buried, are interpreted to ritually terminate the second stone of creation, and properly observe a new "sixth stone" based on the circa 1000 B.C.E. era date found in the Palenque and Yaxchilan mythologies. This "sixness" of time is argued to correspond to the third stone of creation, comparable to "6-Sky," which commonly appears in the names of historical individuals of the Classic Maya.

In concluding the major themes of this work, Chapter 5 revisits the Humboldt Celt and Quirigua Stela C. It suggests that the Humboldt Celt may contain an actual reading order which sequentially leads to the "sixness" of time and the third stone of creation. On the other hand, Quirigua Stela C, from a much later time period, is shown to be dependent upon 4 Ajaw 8 Kumk'u in its depiction of the three stones of creation—it provides very limited details of an esoteric chronology that is better represented by the Palenque and Yaxchilan mythologies detailed in Chapter 3, observed in the monuments and construction projects of La Venta in Chapter 4, and organized through the symbolism of the Humboldt Celt discussed in Chapter 5.

Chapter 5 concludes with thoughts on the importance of stone-settings for the representation of the distant, mythic past in ancient Mesoamerica. These stones seem to have given time a logical and sequential ordering that is linear and not necessarily

defined by cycles or mathematical principles, alone. An earlier stone-setting ideology, possibly supported by patterns in the archaeological record as early as 800 B.C.E. (Clark et al. 2010: 12), may have inspired the later, stela-erecting tradition made famous by the Classic period Maya. Through the setting of stones, as well as ballgame-related ritual sacrifice, Classic Maya elites re-enacted the legendary actions of ancient deities through termination and renewal ceremonies which evoked powers believed to have been manifest in the distant past, which legitimized their own authority and right to rule in the present moment.

CHAPTER 1: Approaching the Deeper Mesoamerican Past

The goal of reconstructing an ancient, era-based chronology in Mesoamerica requires theoretical approaches not typically employed in studies such as the decipherment of Maya hieroglyphs, which tend to rely on ethnographic materials and a connection between ancient and modern (or recently spoken) languages. In the following section, theoretical perspectives are explored which demonstrate why the study of Mesoamerica's ancient, era-based chronology is scientifically relevant as well as feasible. The significance of myth in accessing the Mesoamerican past is discussed, touching on interpretations of Mesoamerican traditions passed along through oral tradition. This is followed by descriptions of Classic Maya 4 Ajaw 8 Kumk'u inscriptions which reference the setting of three stones, modern interpretations of these three stones, as well as the notion of "creation." Evidence is provided which makes the strict division between "myth" and "history" problematic. Finally, the importance of metaphor and the theory of disjunction in interpreting and accessing ancient beliefs are outlined.

TIME AS A SEQUENCE OF ERAS, AGES, OR CREATIONS

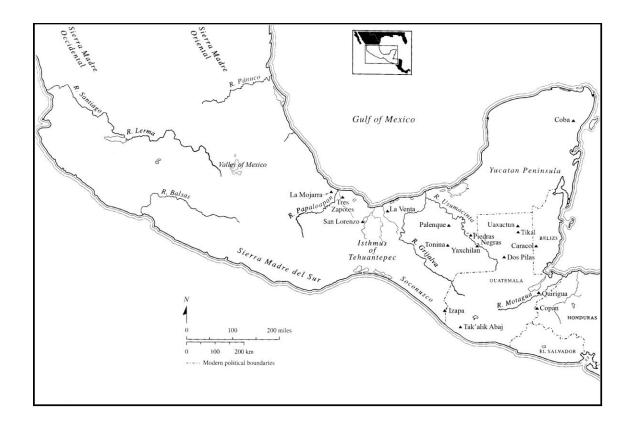
The sheer depth of time has been described as a "major stumbling block to our understanding," and a very recent scientific discovery which shattered "an original hope for our own transcendent importance in the universe" (Gould 1987: 2). Whether referring to geological deep-time, defined in terms of millions of years, or human deep-time,

encapsulating our brief experience on this planet, its unfathomable depth makes the definition of time, beyond predictable daily and yearly cycles, a challenge to define and even acknowledge. As described by Preston Cloud (1988: 77-78): "Time, like space, is no more than a dimension of experience depending...on material objects and events that give it substance....If, then, time is to be measured in terms of events, what events are to be chosen, and how are they to be standardized?"

Whereas the Judeo-Christian tradition emphasizes what might be considered a two-era model of time based on a catastrophic flood event and a subsequent covenant between God and mankind prohibiting such an event from ever occurring again, the past was understood in Mesoamerica (Fig. 2) to exist as multiple, separate ages or creations which have come and gone before the present (see Miller and Taube 1993: 68-70).

Additionally, flood and "fire-water" events form a major component of mythology from the Classic period to the contemporary Maya (see Velásquez-García 2006). Whether this era-based Mesoamerican conception of time was linear or cyclic, and based on real or exaggerated circumstances, requires cross-cultural and interdisciplinary perspectives, and the casting of a rather large "net." It also necessitates a perspective that does not assume standard and uniform conditions have always existed throughout thousands of years of human history, even though present conditions help archaeologists infer how natural processes have helped shape the archaeological record (Trigger 1996: 29).

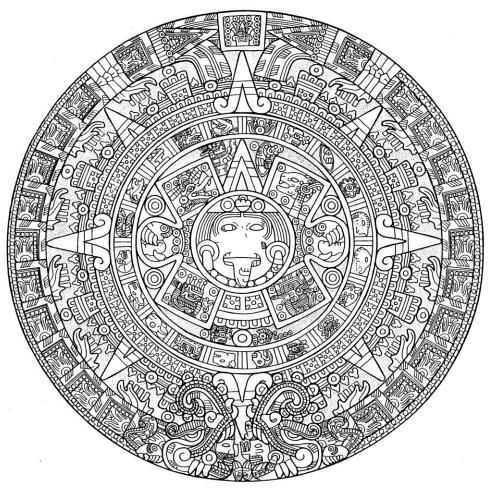
Figure 2: Map of Mesoamerica, with Sites Noted in the Text



Mesoamerican conceptions of the deeper past are best understood and accessible through Postclassic, Colonial period, and contemporary accounts. It has been observed that the Colonial and contemporary Maya believe they are living in the Fourth creation (Justeson 1988: 12; Sharer 1994: 520). This is perhaps best exemplified in the Maya area by the Popol Vuh, with its series of creations and destructions of previous, non-human inhabitants such as the "wooden people," which has been interpreted as a four-era model of time by some authors (Girard 1979: 232; Freidel et al. 1993; Newsome 2001: 100). In

Central Mexico, cultures exhibit a five-creations model known as the Legend of the Five Suns, famously portrayed on the Aztec calendar stone, or sun stone (Fig. 3) (León-Portilla 1980: 40; Gardner 1986). Others prefer to refer to Mesoamerican time models using a neutral "Fourth (or Fifth)" characterization (Rice 2007: 67).

Figure 3: Aztec Sun Stone, Emphasizing a Five-Era Model of Time



The Popol Vuh has been seen, by some scholars, as an important representation of Maya beliefs about the past and considered something of a "Maya Bible" (Tedlock 1985; Christenson 2007). This document was "discovered" and translated from the K'iche'-Mayan language by a Spanish priest in Chichicastenango, Guatemala, at the beginning of the 18th century (Tedlock 1985). The main plot includes the descent of two ballplayer brothers, One and Seven Hunahpu, to the underworld. Here, they are tricked and sacrificed by the Lords of Death whose principal actors, similarly, are named One and Seven Death. An adventure ensues in which the sons of One Hunahpu, named Hunahpu and Xbalanque, themselves ballplayers, are summoned to the underworld. Rather than being tricked, these Hero Twins are able to defeat the Lords of Death through their own trickery and "magic," culminating in the rebirth or resurrection of their father, One Hunahpu (Tedlock 1985).

The central Mexican Five Suns tradition is quite similar to the K'iche'-Mayan Popol Vuh (Miller and Taube 1993: 70; Boone 2000: 18). Its main plot includes multiple creations and destructions followed by an underworld journey of the cultural hero Quetzalcoatl, also known as the plumed serpent, who descends to retrieve the bones of humanity killed in the flood and emerges to create modern humans at the start of the Fifth era (Miller and Taube 1993: 70). These "suns," according to the Central Mexican ideology, serve a metaphorical role, each representing a separate era or age. According to Gardner (1986), the Five Suns is found in eight primary ethnographic sources which vary greatly; the exact order of the suns "had little or no meaning" and may never have had an "original" sequence. This complex, despite often being attributed to the Aztecs, is

part of a larger Central Mexican tradition which may have been adapted by the Aztecs after their arrival in that region (Gardner 1986: 20-27). Other origin myths known from Central Mexico such as the "seven caves of emergence" (Miller and Taube 1993: 60), which are most familiar from Postclassic sources, also may be of more ancient origin, as explored in this investigation.

There is much confusion as to whether the Popol Vuh or the Five Suns traditions are useful in reconstructing a more ancient Mesoamerican time ideology. Interpretations by Lounsbury (1985), Tedlock (1985), and Robicsek and Hales (1988) which made direct comparisons between Popol Vuh characters and deities of the Classic Maya have not stood up to critique based on iconographic (Coe 1989) and epigraphic (Tokovinine 2002) evidence. Nevertheless, "water-entering" underworld scenes such as K1302 (Fig. 4a) and "resurrection" scenes such as K1892 (Fig. 4b), which seem to depict the Classic period equivalents of the Hero Twins in the act of aiding Hun Hunahpu (a.k.a. Hun Ixim) as the Maize Lord (Coe 1973; Robicsek and Hales 1981: 153), suggest continuity between aspects of Classic Maya belief and the Popol Vuh. Additionally, the defeat of Seven Macaw by the Hero Twins is an episode that has been traced to iconography at the Preclassic site of Izapa (Fig. 4c) as well as Classic period Copan (Cortéz 1986; Freidel et al. 1993; Guernsey 2006). Underworld and resurrection scenes from the Maya area such as K731 (Fig. 4d) have been compared to mythology of the plumed serpent, Quetzalcoatl, emerging from Sustenance Mountain, and the origins of corn in Central Mexico (Taube 1985).

Figure 4: Ancient Expressions of Postclassic and Colonial Period Beliefs

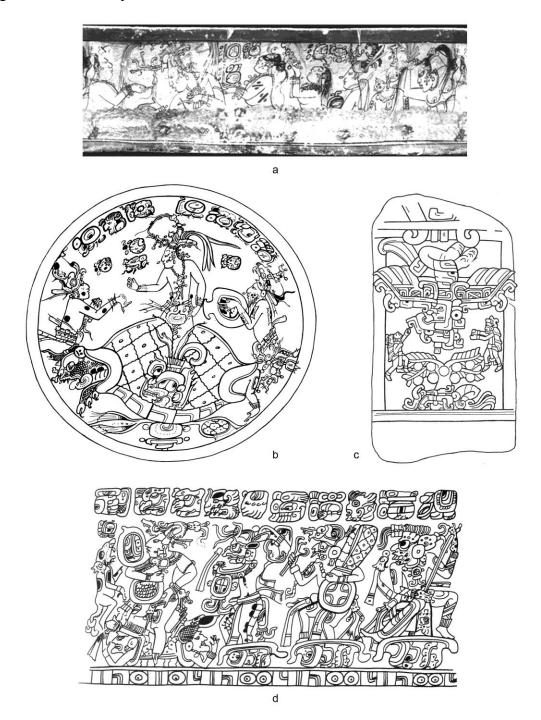


Fig. 4: (a) Maize Lord Underworld scene K1302, (b) Maize Lord Resurrection scene K1892, (c) Izapa Stela 2, (d) Maize Lord Underworld and Resurrection Scene K731.

There are valid limitations to accessing beliefs about the past from either the Popol Vuh or the Five Suns tradition. One problem is the possibility that hybridized, or synchretic, ideologies about time resulted through inter-cultural contact, as demonstrated to exist elsewhere in the Colonial period (Spitler 2005: 274). Additionally, none of these traditions provides an "anchor" for the sequencing of the separate eras of time. As described by Tedlock (1983: 142), the Popol Vuh "does not necessarily unfold anything in chronological order." The Five Suns tradition also has no standardized chronology to the suns. Huge discrepancies exist in the length of the ages of these suns in its eight primary versions, differing by many thousands of years; some traditions give no length to the suns at all, while others provide only a partial chronology (Gardner 1986: 20-27). Most importantly, neither the Popol Vuh nor Five Suns is connected to the chronology of the Long Count calendar, so important to the ordering of time during the Late Preclassic and Classic periods.

The Long Count calendar once provided a chronological structure for time in ancient Mesoamerica, accounting for every single day, according to Classic Maya texts, since a "start date" on the day 13.0.0.0.0 4 Ajaw 8 Kumk'u in the year 3114 B.C.E. (Freidel et al. 1993). Often identified with the Classic Maya, the earliest known Long Count inscriptions, such as Tres Zapotes Stela C (32 B.C.E.), Tak'alik Abaj Stela 5 (126 C.E.), and the Tuxtla Statuette (162 C.E.) indicate that this calendar was actually in use over a wide region of Mesoamerica centuries before its earliest establishment in the Maya lowlands, as evidenced by Tikal Stela 29 (292 C.E.). Additionally, the discovery of La Mojarra Stela 1 (156 C.E.) demonstrates that an advanced Epi-Olmec script (Kaufman

and Justeson 2001) accompanied earlier Long Count inscriptions from the Gulf Coast region.

The Popol Vuh's four-creations model of time has been compared to the start of the Long Count calendar by scholars (Freidel et al. 1993: 111; Looper 2003: 13). However, this comparison is based on the projection of a Popol Vuh conception on to Classic period cosmology. Any understanding of what the Long Count chronology represents, and what era (if any) it begins, should be made through evidence from the Classic period and more ancient sources, not by analogy to later, more familiar materials for the reasons noted.

4 AJAW 8 KUMK'U TEXTS AND THE START OF THE LONG COUNT CALENDAR

While the majority of Maya inscriptions pertain to historical events in real time inscribed in a notational system which indicates that the Bak'tun count had already reached "Nine," rare "creation" texts actually describe 4 Ajaw 8 Kumk'u and the start of the Long Count calendar in 3114 B.C.E. Stone and stucco monuments of this variety include Copan Stela 23 (Fig. 5a), Coba Stela 1 (Fig. 5b) and Stela 5, La Corona Altar 4, Piedras Negras Altar 1 (Fig. 5c), Palenque Temple of the Cross (Fig. 5e) and Temple of the Sun panels (Fig. 5f), Quirigua Stela C (Fig. 1b), and Dos Pilas Panel 18 (Fig. 5f). Details of 4 Ahau 8 Kumk'u are also found on ceramic vessels, the most famous of which are from the site of Naranjo, Peten: the Vase of the Seven Gods (Fig. 5g) (K2796), and the Vase of the Eleven Gods (K7750).

Figure 5: Texts which Describe the Start of the Long Count Calendar

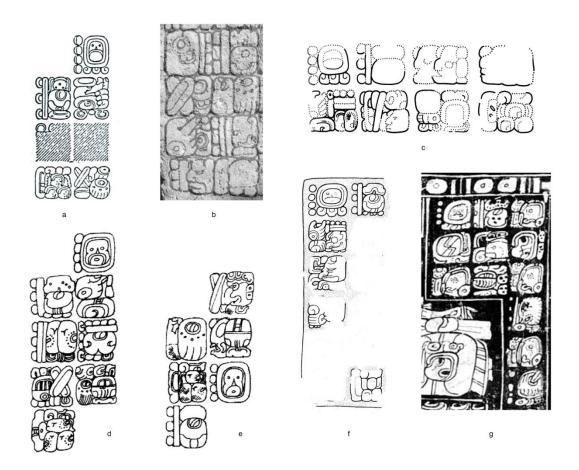


Fig. 5: (a) Detail of Copan Stela 23, (b) Detail of Coba Stela 1, (c) Detail of Piedras Negras Altar 1, (d) Detail of Palenque Tablet of the Cross, (e) Detail of Palenque Tablet of the Sun, (f) Detail of Dos Pilas Panel 18, (g) Detail of Vase of the Seven Gods, K2796

These 4 Ajaw 8 Kumk'u narratives contain examples of identical, formulaic language in addition to some elements of local variation. As is the convention with Maya texts, the verb follows the 4 Ajaw 8 Kumk'u date, a logograph known as the "crossed-

batons," resembling crossed-bands ("X") (Freidel et al. 1993; Looper 2003). The reading of this phrase has been particularly difficult (Freidel and MacLeod 2000). Also common is the *ti' Chan Yax Ux Tuun*(?) *Nal*, or "Edge of Sky, First (also, "Blue-Green" or "New") Three Stones/Hearth Place" description. A *Tzutziij 13 Pik*, or "13 Bak'tuns are completed," phrase might be considered part of the standard 4 Ajaw 8 Kumk'u narrative (Freidel et al. 1993; Freidel and MacLeod 2000; Looper 2003).

One 4 Ajaw 8 Kumk'u text, Quirigua Stela C (Fig 1b), has been interpreted as providing significantly greater detail than the rest of these texts and has been given elevated status as a result (Looper 2003: 158). This monument has been interpreted to give specific details about the "Yax Three Stones/Hearth" established at 4 Ajaw 8 Kumk'u, mentioning the planting of the first stone of creation by the Paddler Gods at Na Ho Chan, or "First 5-Sky," and of the second stone of creation by a deity unknown from any other context of Maya writing (Stuart 2011: 219). Finally, a third stone of creation is set (or "bound") by the deity Itzamnaah (Stuart 2011: 219). The phrase *U kabiij Wak Chan Ajaw*, or "It was the doing of the '6-Sky' Lord" completes Quirigua Stela C. These details are not spelled out in any of the other 4 Ajaw 8 Kumk'u texts.

THEORIES TO EXPLAIN THE THREE STONES OF CREATION

An astronomy-centric model expounded in the book *Maya Cosmos* has become a popular explanation of the three stones of creation narrative. This model proposes, essentially, that "every major image from Maya cosmic symbolism is a map of the sky"

(Aveni 1996: 197). The three stones are thought to be based on a Three Hearthstones constellation in the stars of Orion known as Alnitak, Saiph, and Rigel (Freidel et al. 1993: 80). The "6-Sky Lord" is identified as the Maize Lord who was born out of an adjacent turtle constellation consisting of the three belt stars of Orion, as supported by a turtle constellation identified by Landa (Tozzer 1941: 132-133). Additionally, "6-Sky" was believed to have a celestial counterpart as the Milky Way, representing the World Tree that was "raised-up" at "Creation" (Freidel et al. 1993: 82). *Na Ho Chan* (First-Five Sky) was identified as an "area of the sky" (Grube and Schele 1993) while the Paddler Gods were seen as "sky artist(s)" who painted the sky with stars (Freidel et al. 1993: 94-95).

Another interpretive model of the three stones of creation is based on Mesoamerican cosmological models of space. One proposal is that the three creation stones refer to a vertical structure of the cosmos established at "creation" based on the earth, sky, and underworld (MacLeod 1991; Christie 2003: 310). Another proposal sees the three creation stones or hearth stones as representing the centrality of space as well as the *axis mundi* established at the time of "creation" (Taube 1998: 427-478).

A third interpretive model for explaining the origins of the three stones is based on features of the natural environment, namely, mountains or volcanoes. For example, the identification of the three stones of creation as the volcanoes San Pedro, Atitlán, and Tolimán by the Tzutuhil-Maya of Santiago Atitlán (Christenson 2001: 76) has been compared to representations of the three stones in the triadic Cross Group at Palenque (Bassie-Sweet 2008: 243-246). Similarly, three stones have been seen in mountains in

Central Mexico and likened to architectural programs at Teotihuacan (Headrick 2007: 113).

None of these proposals for the meaning of the three stones of creation—the astronomical model, the cosmological space model, or the geographical model—explores the possible metaphorical quality of stones to represent separate units of time.

WESTERN AND CLASSIC MAYA CONCEPTIONS OF "CREATION"

The term which has been used most often to describe 4 Ajaw 8 Kumk'u and the start of the Long Count in 3114 B.C.E. is "creation" (or "Creation"), though this term may carry a sense of vagueness that the original inventors of the Long Count may not have intended. This term leaves ambiguity as to *which* creation is specified and does not necessarily account for the existence of time *before* 4 Ajaw 8 Kumk'u. According to Staller, a predominant feature of Mesoamerican traditions is that "origins or creations are from previous conditions or states, and not out of nothing" (Staller 2008: 7). Tedlock notes that the terminology used by his K'iche' informant to describe the opening of the Popol Vuh "does not imply creation from nothing" (Tedlock 1983: 140).

Early interpretations (Freidel et al. 1993) of the "crossed-batons" verb which marks 4 Ajaw 8 Kumk'u at the start of the Long Count calendar—read as *jal*, "to manifest"—supported the notion of "creation" out of nothing. However, this reading has since been reconsidered by the same authors who made this original claim, providing a newer reading of *hel* (or *jel*) meaning "to change," "to switch," or "to change over"

(Freidel and MacLeod 2000; Stuart 2011: 216). What exactly "changed" at the start of the Long Count—there is debate between a three-stone hearth, a hearthstone, an altar, a mask, or an image (Freidel and MacLeod 2000; Barb MacLeod personal communication 2011; David Stuart personal communication 2010, 2011)—seems to be metaphorical. In any case, "change" implies the existence of a previous state (Stuart 2011: 221). For the purposes of this study, other descriptions which refer to 4 Ajaw 8 Kumk'u, such as the "crossed-batons" verb (Fig. 6a), and the *ti' Chan*, or "Edge of Sky," and "*Yax* Three Stones/Hearth" phrases (Fig. 6b) are of primary interest.

Figure 6: Descriptions which Characterize 4 Ajaw 8 Kumk'u

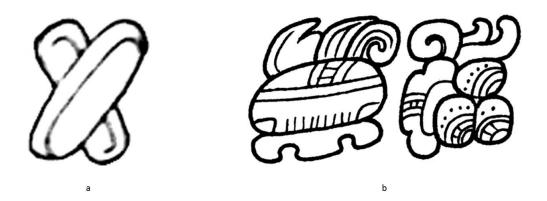


Fig. 6: (a) "crossed-batons" verb which follows 4 Ajaw 8 Kumk'u, (b) "ti' Chan Yax Three Stones/Hearth Place" description for 4 Ajaw 8 Kumk'u, from unprovenanced, early greenstone mask.

The most important reference to "creation" from the Classic period, in a literal sense, may be the myth of *Ux Ahal*, meaning "Three Creations, Awakenings, or Conquests" (Freidel and Schele 1991: 302; Freidel et al. 1993: 354). This term, related to the symbolic meaning of the ballgame (Grube and Martin 2008: 130), is probably based on the root word *ah*, meaning "to dawn" or "to wake up" (Schele and Freidel 1991; Gutierrez 1996: 11). Stuart considers *Ux Ahal* to "probably refer in some way to distinct phases of world creation, or separate creations in their own right," which were ritually reenacted through the symbolism of the ballgame and captive sacrifice (Stuart 2005: 177). Determining the proper chronology of the *Ux Ahal*, known only from an inscription at Yaxchilan, as discussed in Chapter 3, therefore is critical to an understanding of the Classic Maya notion of "creation" rather than Western conceptions of "creation" which have been traditionally projected on to 4 Ajaw 8 Kumk'u.

WHERE WRITTEN AND ORAL TRADITIONS SEEM TO MEET

While Classic period ideology was transmitted through diverse and evolving iconographic features and written records, the Popol Vuh as well as the Legend of the Five Suns of Central Mexico have mostly been transmitted orally (Gardner 1986: 19), raising the issue of reliability. The question of whether oral traditions and "myth" can be considered "history" is a reservation of many anthropologists, despite "an increasingly powerful compulsion to represent 'the native point of view'" (Darnell 2011: 214).

Bricker argues that the term "myth" carries a derogatory connotation which, according to

modern usage, is assumed to represent the "antithesis of history" and something that is fictitious and untrue (Bricker 1981: 3). Though Western society is trained to differentiate between the two, "the opposition between mythology and history...is not at all a clear-cut one" (Lévi-Strauss 1978: 40). Boone (2000: 15) writes that in the ancient Americas, the fabulous and legendary must be included in our understanding of history because early Mesoamericans saw no division between myth and history.

Some scholars are becoming increasingly aware of the limitations of the term "myth," instead substituting terms such as "sacred history" as "part of the ongoing decolonization of perception and research practice" (Jansen and Pérez Jiménez 2007: *preface*). Tedlock uses the term "mythistory" in an attempt to bridge the gap between the concepts (Tedlock 1985: 64). Bricker uses the term "theories of history" to describe mythic traditions, stating: "If myths are theories of history, then they should be analyzed as such... (I)n order to analyze myths properly, one must know something about the historical events to which they refer" (Bricker 1981: 4).

To apply Bricker's commentary to the study of Mesoamerican perceptions of the deeper past, it is therefore important to "know something about" the dates which are referred to in the ancient texts, such as the start of the Long Count calendar in 3114 B.C.E. Thompson's description, that the Long Count calendar "probably represents the last creation of the world and was a projection far into the past without any historical basis" (Thompson 1963: 147), characterizes an a priori approach that has been rarely questioned by Western scholars (Girard 1979: 232). In theoretical terms, it is the perceived lack of a "cultural context favorable to advanced numeration systems" before

the Middle Formative period (Justeson 1988: 10) which divides historically-plausible records from "mythological" ones.

Yet a wealth of interdisciplinary materials is now accessible from which to study potentially-significant dates mentioned in Classic Maya texts. These dates may have formed chronological "anchors" from which ancient day counts emerged, giving time a "structure" that was not based purely on mathematics. For example, the start of the Long Count in 3114 B.C.E. has been noted to mirror a major change in era-based time ideology according to the time reckoning of ancient India, which refers to 3102 B.C.E. as the start of the Kali Yuga (Aveni 1992: 150). Even more evidence suggests that a second date—the 2360 B.C.E. date prominent at Palenque referring to the birth of the Triad Gods, recorded in huge monumental inscriptions and in some of the finest art anywhere in the Maya world—is important to shared understandings of the past.

This same year, 2360 B.C.E., is the date of The Deluge, or Biblical flood, according to 2nd and 3rd century C.E. Roman historians Censorinus and Varro; similar flood dates have been proposed by modern scholars (Mandelkehr 2006). Distinguished geo-archaeologist Karl Butzer notes that during his career, he has come across anomalies in the archaeological record at about 2300 B.C.E. "all the time" (Karl Butzer personal communication 2010), as investigated by Mandelkehr (2006). Such evidence brings up the likelihood that deeply-held beliefs about the past—considered "myth" according to Western prejudices and preferences—may more appropriately be considered legitimate "theories of history" and seen as important expressions of indigenous knowledge about the past. Interdisciplinary evidence magnifies, considerably, the relevance of an original,

era-based understanding of time in ancient Mesoamerica and the importance of reconstructing the terminology which was once used to describe and organize it. It also suggests that a day count did, indeed, once extend deep into the Archaic past as theorized by Rice (2007: 174-178, 203), who also cites Coe (1981: 161-162), Grove (1993: 91); Lathrap (1974), Marcus, Flannery, and Spores (1983: 38-39), and Schele (1992:2).

Because the 2360 B.C.E. date is not found throughout the Classic Maya world, it has long been assumed to be a locally-contrived Palenque oddity, perhaps an invention by the elite based on a need to legitimize rule (Sharer and Golden 2004: 35). This thesis, however, proposes that the year 2360 B.C.E. corresponds to the language of an ancient, stone-setting narrative which marks a change of era known as *Na Ho Chan*, or "First 5-Sky," when the first stone of creation following 4 Ajaw 8 Kumk'u was set (i.e., "terminated"). This important change of era is argued to correspond, among other mythic traditions, to the death and watery underworld journey of the Maize Lord, a legendary event that is pivotal to Maya religion which culminates in his emergence or rebirth, and (in some versions of the ancient narrative) with the accession of the Maize Lord to power at the start of the Fifth age. As demonstrated in Chapter 3, this important era event is important to the symbolism of the ballgame and the chronology of *Ux Ahal*, surviving through oral tradition over thousands of years, with notable changes, into the Popol Vuh.

If site mythologies are to be considered "theories of history," it is logical that certain "theories" may be more accurate reflections of "history," from an objective point of view, than others. In this respect, two sites, Palenque and Yaxchilan, are suggested in this thesis to show interest in providing a chronological "anchor" for the setting of the

first stone of creation followed by the rebirth of the Maize Lord into the Fifth era, placing these events in the 24th century B.C.E. The majority of Classic period Maya sites does not provide these dates, but they seem to refer to them by way of common terminology and conventions explored in this thesis. Whether these sites did not have access to this deep-time chronology, simply chose not to provide these dates, or expressed them through means that have not been recovered archaeologically, is difficult to determine.

Some Classic Maya sites seem to have made calculations using impressive Distance Numbers and calendric synchronicities to pre-4 Ajaw 8 Kumk'u time in order to specify temporality of ancient mythic events. Copan and Quirigua, far in the southeastern periphery, are especially noted for referring to the deepest past, to places and events witnessed by holy lords millions, if not billions, of years ago (Newsome 2001; Looper 2003: 138, 152; Stuart 2011: 250). Even at Palenque, as noted by Lounsbury, "contrived numbers" were also used to create dates for its deep-time narrative, whereby the birth of the Maize Lord on 12.19.13.4.0 8 Ajaw 18 Tzek in pre-4 Ajaw 8 Kumk'u time was back-calculated using multiples of smaller cycles from the birth date of the holy lord *K'inich Janaab Pakal* (Lounsbury 1976: 218). To speculate as to the relevance of pre-4 Ajaw 8 Kumk'u dates is beyond this study, though it is important to consider the fact that many sites acknowledged, and were clearly interested in "theorizing" about, events in the deeper past.

The goal of this study is not to "impose" a structure of time on to ancient Mesoamerican peoples, for interdisciplinary evidence suggests that era-based time ideology is a response to natural forces that have *been* imposed on to ancient peoples,

forming the basis of an era chronology and belief in all-powerful creator deities and points of origin. The goal is instead to identify the "fundamental entities" which were once used to organize the deeper past and to define the "elementary relations between them" (Kluckhohn 1973: 47). This requires freedom from "a priori limiting presuppositions" (Trigger 1996: 27) as to the nature and likelihood of rare anomalies which may have impacted the ideology of time expressed by earlier humans.

These "fundamental entities" of Mesoamerican time seem to be metaphors, an "essential means" of describing the world in ancient times (Miller and Taube 1993: 31). Sherzer (2002) describes metaphors as "enabl(ing) us to talk about one kind of thing in terms of another kind of thing"; "Metaphors... become narratives and narratives, metaphors" (Sherzer 2002: 113, 114). In Central Mexico, the basic age-related metaphor for time, quite clearly, is the suns tradition, which has been understood for centuries. In the Classic Maya area, era-related time concepts have been more difficult to identify. This thesis proposes that a basic relationship between bar-and-dot numbers, the metaphors "stone" and "sky," and important deities, is essential to identifying the chronological structure of time beyond sheer mathematics, and to the meaning of the three stones of creation, as it was originally intended.

ON THE ISSUE OF DISJUNCTION

No theoretical perspective is more important to the study of Mesoamerica's beliefs about the deeper past than the recognition that original meanings, particularly

when communicated through metaphors, tend to be lost, transformed, and reinvented with the passage of time. The theory of disjunction attempts to take into account the fact that that the results of change as well as some continuity of beliefs may be observed across different places and times in Mesoamerican history. One-to-one correspondence between Olmec and Postclassic Maya ideology is unlikely, even if the latter had been a descendant of the former. At the same time, very ancient concepts may have lost their original meanings by the time they were inscribed into stone during the Classic period. This theory, based on Panofsky's (1955) principle of disjunction and applied to the understanding of ancient Mesoamerica by Kubler (e.g., 1967, 1969), is particularly important to problematizing and conceptualizing the three stones of creation, a concept which seems to pre-date the Classic Maya by well over 1,000 years, as best evidenced by the Humboldt Celt.

According to the theory of disjunction, the fact that the *Na Ho Chan*, or "First 5-Sky," and "6-Sky" essentially disappeared at the end of the Classic period may indicate that these concepts were part of a more ancient ideology which simply does not have a clear Postclassic, colonial, and contemporary counterpart. Previous attempts to understand these glyphs have tended to assume continuity of meaning, and therefore, have drawn on analogy and linguistic comparison from colonial and contemporary sources. This has produced, for example, a "celestial layers" meaning for *Na Ho Chan* and "6-Sky" based on limited contexts of the glyphs (Stone 1993: 408). More famously, *wak*, the number "six," was attempted to be read as the adjective *wa* in Yucatec-Mayan,

meaning "upright" or "raised up" (Barrera Vasquez 1980: 906; Freidel and Schele 1990: 472), yielding a "Raised-up Sky" translation for "6-Sky" popular in the 1990's.

Rather than attempting to understand Classic period concepts such as *Na Ho Chan* and "6-Sky" through more recent, better-understood ethnographic sources and language, the theory of disjunction makes it necessary to attempt to reconstruct meanings through *earlier* expressions of the ideology, such as through the symbolism of Olmec-era iconography. Such a "long view" of these concepts may be more capable of approaching original, intended meanings which have been subjected to lesser degrees of change. The difficulty, of course, is that Olmec monuments such as those found at La Venta have no writing with which to connect to later written or oral traditions. However, as explored in Chapter 4, the Olmec seem to have used the same *metaphors* by which the deeper past was organized as the Classic Maya—namely, "stone" and "sky"—and may well have been the inventors of the era-based chronological system inherited by the Classic Maya.

Although it may be preferable to start from the earliest Mesoamerican expressions of the deeper past, such as the Humboldt Celt, and work forward in time to avoid problems of disjunction, the Classic Maya provide more data through a combination of both iconography and writing from which patterns can be drawn. The following chapter presents data on the numbered sky glyphs such as *Na Ho Chan* and "6-Sky," a phenomenon of written mythology (i.e., "mythistory,") for well over 500 years from the late Preclassic to the Terminal Classic periods.

CHAPTER 2: The Numbered Sky Glyphs

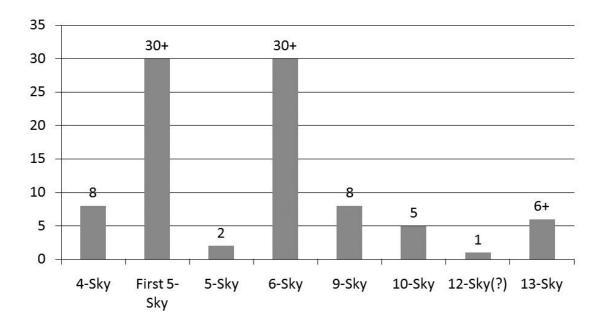
This chapter presents a summary of data gathered on hieroglyphs referred to as the numbered skies. They include *Na Ho Chan*, or "First 5-Sky," and "6-Sky" from the Quirigua Stela C stone-setting narrative, as well as additional numbered sky glyphs found in mythic contexts. After a brief introduction, they are presented in numerical order starting with *Chan te' Chan* ("4-Sky") and ending with *Uxlahun-Chan* ("13-Sky").

The numbered sky glyphs have been studied through several theoretical approaches, with interpretations tending to be made based on a limited number of contexts. For example, a relationship between God L and the "13-Sky" glyph led to the early conclusion that a thirteen-levels-of-the-sky cosmology must have existed during the Classic period (Thompson 1950: 129). A more recent interpretation has focused on a perceived Maya fondness for using number-prefixed hieroglyphs to refer to divisions, directions, and locations, whereby numbered sky glyphs are understood to be "mythological place names" referring to supernatural geography (Houston and Stuart 1994).

An understanding of the numbered sky glyphs need not take a limited number into account but rather, as many contexts as possible—not just glyphs from better-known monuments or those which fit a certain preconceived theory. In the following section, data pertaining to all known numbered sky glyphs collected in the course of this study is presented in sequential order. A brief summary of observations will be given for each glyph when deemed appropriate. The relative abundance as well as absence of certain

numbered sky glyphs is considered vital evidence in reconstructing the meaning of these glyphs. For example, "1-Sky," "2-Sky," and "3-Sky" have not been noted in the hieroglyphic record—the first numbered sky is *Chan te' Chan* ("4-Sky"). After the prominent "6-Sky" glyph, "7-Sky," "8-Sky," and "11-Sky" are also *not* noted in the archaeological record. Although additional examples may exist which are not identified (or have not yet been found), the data presented represents the majority of known numbered sky glyphs from Maya writing, from which general conclusions can be drawn. A comparison of the occurrences of these glyphs is depicted in graph form in Figure 7.

Figure 7: Occurrences of the Numbered Sky Glyphs in Maya Writing



CHAN TE' CHAN ("4-SKY")

Chan te' Chan ("4-Sky") occurs in at least eight different contexts, all in the Classic period. The te' portion of the glyph only appears in relation to "4-Sky"; no other numbered sky glyph receives the te' element. As a logograph, te' (or che') means "tree" or "wood" in Mayan languages (Kaufman 2003: 1081-82). The Chan te' Chan glyph is especially prominent at Copan, where it seems to be important to site identity, appearing on Stelae A, B, and 4, and Altar A'. Newsome suggests that the "4-Sky" glyph is used in reference to an original foundation and "bundling" event in A.D. 159 according to Stela 4 (Newsome 2003: 17). She also comments that a famous sequence of four "4-Sky" variants on Stela A (Fig. 8a) may pertain to the reenactment of the directional partitioning event at "creation" (Newsome 2001: 141; 198). Evidence suggests that a deity (or deities) known as the Chan te' Ajaw, identified among the local patrons of Copan (Stuart, Houston, and Robertson 1999: II-59), is a fire and sun-related deity (Newsome 2003: 28) which is possibly, conceptually related to this numbered sky glyph.

An important example of *Chan te' Chan* from Yaxchilan, Panel (or Step) 6 (Fig. 8b) in a series of ballgame-related inscriptions, uses the phrase *Pitz Chan te' Chan utiiy hom*, or "Is played, '4-Sky,' it happened at the (Five) *om*," where *hom* has been interpreted as "chasm" (Freidel et al. 1993: 358). Another example of "4-Sky" is from the Altar de Sacrificios vase, in which the dancing *way* of a lord of *Chan te' Chan B'a*(?) *13 K'uh*(?) is depicted in head-to-toe jaguar costume and identified by the name *Yax Balamte'* (Freidel et al. 1993: 265; 460). A Nakbé-area vessel fragment (Fig. 8c) appears

to use "4-Sky" in association with a *k'in*-marked death lord wearing a skull headdress followed by the phrase *Chan te' Chan B'a Tuun* ("4-Sky,' First/Head-Stone"), which accompanies an underworld scene (see López and Fahsen 1993: 299, Fig. 10.6).

From these rare examples, *Chan te' Chan* ("4-Sky") may be seen to have deep mythical associations. Rather than connoting merely quadripartite directional symbolism, *Chan te' Chan* seems to be related to foundation and origin reenactment events at Copan which, as suggested by Newsome, may relate to the importance of the day 4 Ajaw and 4 Ajaw 8 Kumk'u (Newsome 2003: 27). Another important aspect of "4-Sky" is that it also relates to the mythology of the ballgame.

Figure 8: Examples of the Chan te' Chan ("4-Sky") Glyph

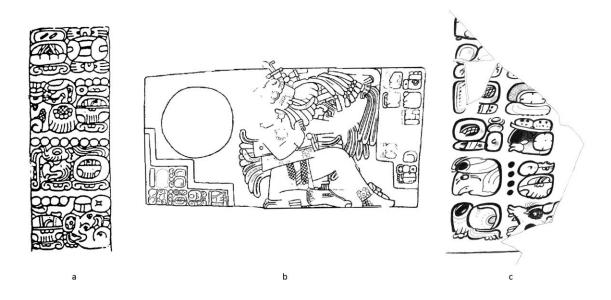


Fig. 8: (a) Detail of Copan Stela A (b) Yaxchilan Panel 6, (c) Nakbé fragment.

NA HO CHAN ("FIRST 5-SKY")

Na Ho Chan is one of the most prevalent numbered skies, occurring at least thirty-one times (in various forms) in Classic period inscriptions and ceramics over about a 572-year period. This important numbered sky glyph is the only one to take the Na-, or "First" prefix (Nikolai Grube personal communication 2010). The Na Ho Chan is discussed by Stuart (1988) in the context of the Paddler deities, where "na-5-sky" serves as an "apparent title" for the Stingray and Jaguar Paddler gods (Stuart 1988: 189). Freidel and Schele (1993) discuss Na Ho Chan in three main contexts and give a "First 5-Sky" reading for Na Ho Chan, considered a sacred location, a place where the events of creation unfolded and the "universe was made" (Freidel et al. 1993: 99). Stuart and Houston (1994), Grube (1994), and Taube (1996) have interpreted Na Ho Chan to be a supernatural place name.

The *Na Ho Chan* glyph is evident in the archaeological record as early as 305-308 A.D. from El Encanto Stela 1 (Fig. 9a), northeast of Tikal (Rice 2004: 101). Two early examples are found on incised vessels from Uaxactun (Grube and Gaida 2006: 115). Although the context is unclear, the glyph may be used in ceramic vessel K1216 as part of a phrase which includes a jaguar element followed by Turtle-foot *Na Ho Chan Ajaw*, possibly related to the "Turtle Foot Death" character seen in a stucco frieze at Tonina (David Stuart personal communication 2010). Another Uaxactun vessel (Fig. 9b) depicts an interesting variant, perhaps attributable to scribal confusion or error, which reads *Na Lahun Chan* ("First 10-Sky").

Figure 9: Examples of the Na Ho Chan ("First 5-Sky") Glyph (Part I)



Fig. 9: (a) El Encanto Stela 1 Side A, (b) Uaxactun *Na Lahun Chan* variant, (c) Detail of Caracol Stela C, (d) Fragment of Piedras Negras Stela 29, (e) Detail of Naranjo Altar 1, (f) Tonina Monument 139.

A well-preserved early example of *Na Ho Chan* from Caracol Stela 16, dated to 534, is the first clear example of the glyph's association with period endings, a trend which continues into the Terminal Classic. This stela seems to ascribe the *Na Ho Chan Ajaw* title to Caracol's Triadic deities, or at least to one of these figures (Fig. 9c). Five years later, Piedras Negras produces a variation of the *Na Ho Chan* glyph on Stela 29 which reverses the normal reading order, creating a *Ho Chan Na* glyph (Fig. 9d). This is the only known instance in which *Na*- exists as a suffix and would seem to indicate a "5-Sky House" reading. (Interestingly, "5-Sky" is attested later at Piedras Negras).

At the end of the 6th century, Naranjo Altar 1 (Fig. 9e) provides the first clear evidence that *Na Ho Chan* is associated with the Jaguar God of the Underworld (JGU). The text of Altar 1, dated to 593, places *Aj Wosal* as 35th in a line of kings counting back to a Preclassic founder (Martin and Grube 2008: 71-72). However, the text extends the foundational chronology using the verb *tz'akbul* to count back to the Jaguar God of the Underworld, a deity who is given the title *Na Ho Chan B'a Tuun*, or "First 5-Sky,' First/Head Stone" (David Stuart personal communication 2010). This interesting context of the glyph seems to define the JGU as an ancestral figure in long-ago time related to the *Na Ho Chan*.

The most *Na Ho Chan* glyphs known from any one site are from Tonina, at least six starting at the end of the 7th century. Each of the four *Na Ho Chan* references from Tonina which can be dated (682, 702, 716, and 717) overlap in some way the life of *K'elen Hix*, a prominent royal figure with the title of *Aj K'uhuun* who served under several kings including Ruler 2 (Grube and Martin 2008: 180), whose un-deciphered

name glyph includes a jaguar headdress similar to that worn by the Jaguar Paddler (see, for example, Copan Stela 7). These *Na Ho Chan* examples tend to be rather formulaic expressions on round altars at period endings referring to the Jaguar Paddler and Stingray Paddler as *Na Ho Chan* Lords (Fig 9f). The Jaguar Paddler is often represented in these examples by an *Ak'ab'* darkness/night cartouche with a *Na*- (T4 or T23) prefix or suffix, while the Stingray Paddler, by a *K'in* sun/day cartouche with a *Ti*- (T59) prefix or suffix.

At Palenque, which likely defeated Tonina and Ruler 2 in 687 (Grube and Martin 2008: 169, 181), the triadic Cross Group was dedicated in 692, where the Temple of the Foliated Cross was chosen to contain Palenque's only *Na Ho Chan* reference (Fig. 10a). Located on a doorjamb, *Na Ho Chan* forms part of a title for the newborn *Unen K'awiil*; the deity is termed a *Ch'ok Na Ho Chan Ajaw*, or "Sprout/Youth, 'First 5-Sky' Lord" (Freidel and Schele 1988: 70; Stuart 2005: 174).

Drawing 65 from the Naj Tunich cave seems to refer to *Na Ho Chan* as part of the name phrase of a cave ritual participant and may date to the year 745 (Stone 1995: 163). This is the only example in which "First 5-Sky" seems to form the name of an historical individual.

Three possible 8th century ceramics, two polychrome vases and a plate, highlight associations of the *Na Ho Chan* which are not immediately evident in the monumental inscriptions. The polychrome ceramic K688 (Fig. 10b), of unknown provenience, is one of the most well-known *Na Ho Chan* examples, the basis of many interpretations of the glyph's meaning. The vessel's text refers to the birth of a youthful, jaguar-tailed entity following a partially destroyed Calendar Round date using the phrase *Utily Na Ho Chan*

Witz Xaman, or "It happened at the 'First 5-Sky' mountain north/up." Another polychrome, K791, has been interpreted as a scene depicting a dance of way spirit companions and may date to 755 (Freidel et al. 1993: 265-267; Kerr Online Database accessed November 2010). Na Ho Chan seems to form the caption for a monstrous, knife-wielding way character (Fig. 10c) tagged by the U Way Na Ho Chan phrase (Stone and Zender 2011: 82). Yet another example of the glyph is Plate #119 in a study by Robicsek and Hales (1981), which also appears to depict a dance of wayob'. In this example, a caped JGU figure may be given the U Way Na Ho Chan title. Interestingly, some of the dancing figures have deer antlers (Robicsek and Hales 1981: 94).

Both Tikal and Copan show interest in *Na Ho Chan* glyphs in the mid-8th century, with Tikal Stela 5 in 744 describing the 27th ruler, *Yik'in Chan K'awiil*, as a *Na Ho Chan Kalomte' K'uhul* Tikal *Ajaw* (Fig. 10d). At Copan, two *Na Ho Chan* references are found on the same monument, a companion altar to Stela M dated to 756 (David Stuart personal communication 2010). This sculpture sits at the base of the hieroglyphic stairway, a focus of the city's identity, and may be identified as a "Starry Deer Crocodile" (Stuart 2005: 70-73). In at least one and possibly two glyph blocks around the edge of the monument, an *Utity Na Ho Chan*, or "It happened at the 'First 5-Sky'" phrase is discernable, with the cartouches of the Paddler deities appearing among mostly-destroyed glyphs.

Two 8th century stelae—Sacul Stela 1, 761, and Ixkun Stela 2, 779—present interesting variations on the *Na Ho Chan* theme and use the glyph as a title for the "Banded Bird," (a.k.a "*Itz'at*") (Freidel et al. 1993), a title thought to be similar to *ajaw*

(Stuart 2005: 133). Another contemporary stela from La Milpa in 780 may depict the *Na Ho Chan* with the "Banded Bird" title, although significant weathering makes identification difficult.

Perhaps the most famous depiction of *Na Ho Chan* appears on Quirigua Stela C, dated 9.17.5.0.0 6 Ahau 13 Kayab in 775 (Fig. 1b). A key detail is that the first stone of creation is planted using the language *Utity Na Ho Chan*, or "It happened at the 'First 5-Sky.'" This first stone of creation, known as the Jaguar throne-stone, is said to be planted by the Paddler deities, Stingray and Jaguar Paddler.

An example of *Na Ho Chan* from a carved lintel at Itzimte'-Bolonchen, Campeche, may represent the extreme northern limit of the glyph's known distribution (Fig. 10e). The phrase seems to involve an actor whose head glyph is shown in front of what appears to be a water jug. Its long snout may identify the figure as *Chaak*, although distinguishing features such a shell earspool are absent. An *Utily Na Ho Chan*, "It happened at the 'First 5-Sky,'" phrase can be discerned.

Figure 10: Examples of the Na Ho Chan ("First 5-Sky") Glyph (Part II)



Fig. 10: (a) *Unen K'awiil Ch'ok Na Ho Chan Ajaw* title, Palenque Temple of the Foliated Cross, (b) Detail of *Na Ho Chan* birth scene, K688, (c) Detail of K791, (d) Detail of Tikal Stela 5, (e) Lintel from Itzimte'-Bolonchen.

Another example of the *Na Ho Chan* and its relation to the Jaguar God of the Underworld is Naranjo Stela 35 from 800 (Fig. 11a). This monument was erected following the defeat and capture of a lord of Yaxha (Grube and Martin 2008: 82). An intriguing detail of this historical episode is that the "axing" it records is said to be the repeated action—u kob—of a more ancient episode that occurred Utily Na Ho Chan, "It happened at the 'First 5-Sky,'" involving the burning of the Jaguar God of the Underworld (JGU) by the *Chan te' Ajaw/Xib'/Ch'ok* figure (Helmke et al. 2006: 15; David Stuart personal communication 2010). This episode seems to form part of a much larger Maya tradition, as vessels from other polities give supporting details relating to the Jaguar God's sacrifice (Grube and Martin 2001: 29). For example, codex-style ceramic K4118 (Fig. 11b) depicts the *Chan te'* figure throwing a giant, tied stone (k'al tuun) on top of the JGU, while K1299 (Fig. 11c) shows the burning of the JGU by the *Chan te*' figure. In a similar manner, the sacrifice of a jaguar deity comparable to the JGU (Grube and Schele 1988) is depicted, quite intriguingly, on Stela F of Copan (Fig. 11d) in a stela named with the phrase Yax Tzutz Chan, or "First Completed Sky" (Fig. 11e).

The important 10.0.0.0.0 milestone at the completion of the 10th Bak'tun in 830 produces only one known example of the *Na Ho Chan* glyph from a site in the vicinity of Tonina called Tila (see Mayer 1991: Plate 206; 62). An attempted reconstructed drawing by Beyer (1927) shows a 10-Bak'tun distance number connecting the monument's dedicatory date to 4 Ajaw 8 Kumk'u, followed by the formulaic "*yatih* Paddlers *Na Ho Chan Ajaw*" phrase typical of the Tonina style.

Figure 11: Examples of the Na Ho Chan ("First 5-Sky") Glyph (Part III)

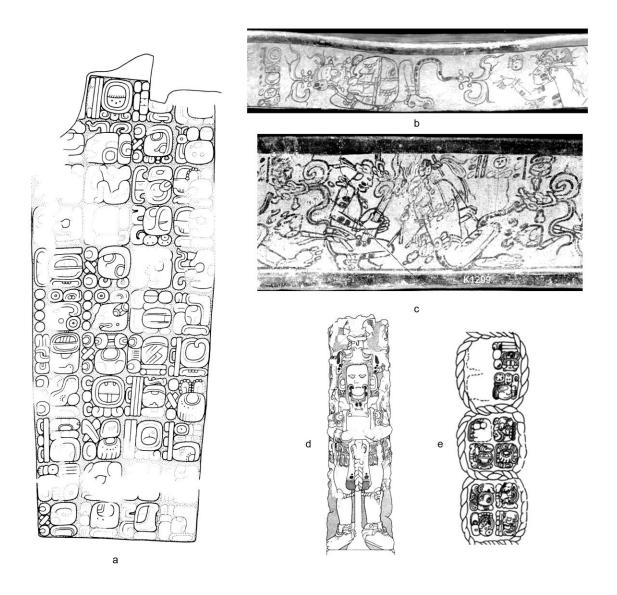


Fig. 11: (a) Naranjo Stela 35, (b) Detail of K4118, (c) Detail of K1299, (d) Copan Stela F, front, sacrifice of Jaguar God, (e) Copan Stela F, back, showing *Yax Tzutz Chan* name phrase.

The Terminal Classic yields several of the most interesting Na Ho Chan examples, suggesting that "First 5-Sky" was important to termination/renewal events even in the final days of Classic lowland tradition. Ucanal Stela 4, 849, refers to Chaak and the Na Ho Chan "Banded-Bird" title (Fig. 12a). A stela-altar pair exactly ten tuuns later from Ixlu, 859, refers to the scattering by a lord who uses the Tikal emblem glyph and evokes the names of multiple gods which include the Paddlers as well as K'an Tuun Chaak with the Na Ho Chan glyph (Fig. 12b). A full k'atun later, as numerous lowland sites had already lost their Classic traditions or had been abandoned altogether, Jimbal Stela 1, 879, may be the last *Na Ho Chan* inscription ever produced. The scene (Fig. 12c) shows the Paddlers riding smoke scrolls, each labeled with its own Na Ho Chan Chaak title. Tzolk'in positions on this monument are partly recorded in rectangular blocks, suggesting Mexican influence. The floating Paddler deities wear odd headdresses, and the Jaguar Paddler is rather clumsily depicted with large claws. Epigraphically and stylistically, this stela seems to have lost its "Classic feel." This final known Na Ho Chan inscription may perhaps be seen as a faded throw-back to a belief system that was actively being replaced by a new one at the Classic lowland collapse.

In summary, some 31 contexts of the *Na Ho Chan* glyph (or similar variants) are known, spanning a roughly 572-year period. Like the *Chan te' Chan*, these contexts are deeply mythical and apparently set in long-ago time, often using the phrase *Utiiy Na Ho Chan*, or "It happened at the 'First Five-Sky." Only a Naj Tunich cave example seems to use the glyph as the name of a historical individual. These contexts include a strong association with the Paddler gods, deities which ferry the deceased Maize Lord in

ceramics and other carved scenes. Another strong association of the glyph is with the Jaguar God of the Underworld (JGU), a deity which is iconographically identical to the Jaguar Paddler (David Stuart personal communication 2010). *Na Ho Chan* is often invoked at period endings, subdivisions of the bak'tun or k'atun. The glyph also appears in the context of *Chaak*, the "Banded Bird" title, "creation mountain," and *K'awiil*.

Figure 12: Examples of the *Na Ho Chan* ("First 5-Sky") Glyph (Part IV)

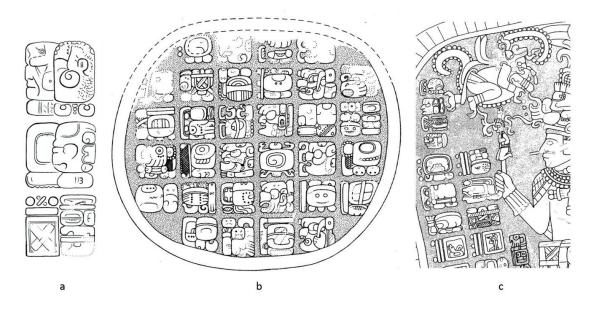


Fig. 12: (a) Detail of Ucanal Stela 4, (b) Ixlu Altar 1, (c) Detail of Jimbal Stela 1.

Ho CHAN ("5-SKY")

Ho Chan ("5-Sky") is recorded at least twice in Classic Maya inscriptions. A late Classic sculptor from Piedras Negras is named Ho Chan te' Chaak? ("5-Sky' te' Chaak(?)"). The incised ceramic vessel K7225 includes a "5-Sky" glyph prefixed by the profile head of the Maize Lord (David Stuart personal communication 2010).

WAK CHAN ("6-SKY")

Wak Chan ("6-Sky") appears in at least thirty Classic period contexts and, together with Na Ho Chan ("First 5-Sky"), is the most important numbered sky of Classic Maya inscriptions. This glyph has been the source of great confusion. As mentioned previously, the popular reading of "6-Sky" as "Raised-up Sky" (Freidel and Schele 1990: 472)—purported to relate to the Milky Way and the Maize Lord as axis mundi—is an error based on attempted readings of rare examples of the glyph at Palenque which incorporate the un-deciphered, double-T584 sign (Callaway 2006: 86; David Stuart personal communication 2010). As stated by Martin, "there are certainly other options" for the reading and meaning of the "6-Sky" glyph (Martin 2001: 8).

One of the earliest examples of the "6-Sky" glyph is the Hauberg stela (Fig. 13a) of the Late Preclassic or Early Classic period, where it sits atop the head of a serpent rising above a GI figure (Stuart 2005: 163). The inscription on the back of an early jade mask contains the "6-Sky" glyph and may name the object as a belt or mask element

representing one of the three stones of creation (David Stuart personal communication 2010; see also Fig. 6b).

Two early Tikal rulers contain "6-Sky" as part of their name phrase—*Chak Tok Ich'aak* (a.k.a. "Jaguar Paw the Great") and *Wak Chan* K 'awiil (Grube and Martin 2008: 28, 39). "6-Sky" appears at Tikal at least five times including on the ceramic K8763 as part of a PSS dedicatory text, and on K4679 in a rim text naming a sequence of early Tikal kings. Stelae 26 and 31 include the glyph as part of the name phrase of these rulers. Tikal cache vessel K8009 (Fig. 13b) includes "6-Sky" in the name of *Chak Tok Ich'aak* and seems to label the Maize Lord in the scene below as *Wak Chan Winik*, or "6-Sky' Person" (Freidel et al. 1993: 73).

Wak Chan Nal ("6-Sky' Place") appears in at least three examples. Naranjostyle vessels K3400 and K8966 depict the dancing Maize Lord wearing a backrack containing the names "6-Sky' Place" and "6-Jaguar Place." A throne of unknown provenience in the Amparo Museum in Puebla, Mexico, includes Wak Chan Nal, probably in reference to a scattering event (Daniel Law personal communication 2010).

The phrase *Wak Chan Muyal* (cloud) appears in several examples. It forms part of the entombed individual's name on Rio Azul Tomb 12 (Fig. 13c), possibly read as *Wak Chan Muyal Nal* (Graham 1986: 456). Pomona Hieroglyphic Panel 10 as well as El Zapote Stela 5 both appear to include the phrase *Wak Chan Muyal Witz* ("'6-Sky' Cloud Mountain"). A monument likely to be from the Palenque region in the Metropolitan Museum of Art includes *Wak Chan Muyal* (Mayer 1984: Cat 166, 87) in a possible death phrase.

The "6-Sky" glyph forms part of the name of several important Classic Maya queens. Lady *Wak Chan Lem*(?), or "6-Sky' Celt," of Naranjo (David Stuart personal communication 2011), Lady *Wak Jalam Chan* of Yaxchilan (Grube and Martin 2008: 131), and Lady *Wak Chan Ajaw* at La Corona figure in the inscriptions at these sites during the 7th and 8th centuries, appearing in at least a dozen stone monuments between them. The glyph "6-Sky Lord" also seems to appear on Calakmul Stela 89.

Figure 13: Examples of the Wak Chan ("6-Sky") Glyph

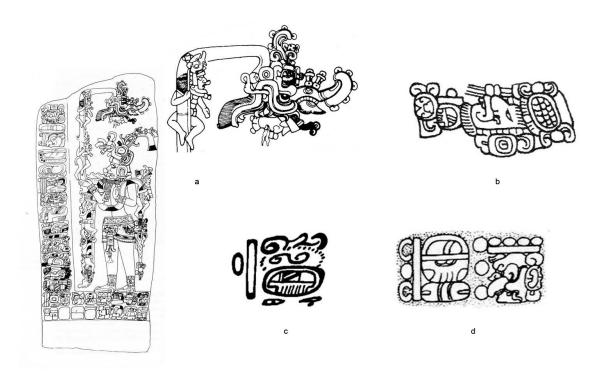


Fig. 13: (a) Detail of Hauberg Stela, (b) Maize Lord with "'6-Sky' Person" label, detail of K8009 (c) Detail of Rio Azul Tomb, (d) Detail of Temple of the Foliated Cross panel.

The "6-Sky" glyph is of great importance to mythic narratives found at Palenque, Quirigua, and possibly, Dos Pilas. At Palenque, the glyph forms part of the name of the Temple of the Cross (Stuart 2006: 109) and a title for *Ux Bolon Chaak* ("Three-Nine/'Many' *Chaak*") within the Temple of the Foliated Cross (Fig. 13d). Quirigua Stela C's stone-setting narrative ends with the phrase, "It was the doing of the '6-Sky' Lord." On Dos Pilas Panel 18, the phrase "'6-Sky' Lord Mutul Lord" may relate to a mostly-destroyed 4 Ahau 8 Kumk'u narrative once contained in the text, the only known at the site (Freidel and Guenter 2006: 71-72).

At Tonina, *Wak Chan K'ak'* ("'6-Sky' Fire") is the name of an 8th century *ch'ok* named on Monument 69 (Grube and Martin 2008: 187). Piedras Negras Stela 14 appears to include the sculptor's name *Wak* (?) *Chan Chaak*.

In summary, "6-Sky" occurs with about the same frequency as *Na Ho Chan* and encompasses about the same chronological range, at least 500 years. Despite its mythic overtones, it commonly forms part of the name phrase of Classic Maya nobility, both male and female. Noted for its association with the Maize Lord, it also appears in association with *Chaak*, *K'awiil*, clouds, and cloud mountains.

BOLON CHAN ("9-SKY")

Bolon Chan ("9-Sky") is recorded at least eight times in the Classic period and at least once among the contemporary Yucatec-Maya. Three examples of the glyph occur in the Temple of the Inscriptions at Palenque. Naranjo Stela 13 may use "9-Sky" as the name of an individual. "9-Sky" is portrayed on Stela 5 from Jonuta in the museum at Morales, Guatemala, in a partially destroyed inscription. "9-Sky" is also found on a Uaxactun vessel at the end of a PSS phrase and reads ""9-Sky' K'in." It appears on a panel from the northern site of Xcalumkin as part of the phrase Utiiy Bolon Chan, or "It happened at '9-Sky."" "9-Sky" is depicted once in the headdress worn by God L in K2796, the Vase of the Seven Gods (Fig. 5g), as a label for the owl (Grube and Schele 1994: 12-13). A deity named Ah Bolon Caan Chac, or "9-Sky' Chaak" was recorded among the contemporary Yucatec-Maya (Redfield and Villa 1939: 115 cited by Tozzer 1941: 140).

LAHUN CHAN ("10-SKY")

Lahun Chan ("10-Sky") is recorded at least four times—twice in the Classic period and once in the Postclassic and Colonial periods. It is known to be carved in stone only on Nim Li Punit Stela 1, forming the name of a lord involved in a period-ending scattering ritual in 741 (Fig. 14a). Lahun Chan is noted at Chichén Itzá, appearing on a capstone where it follows a dedication verb. In the Postclassic Dresden Codex Venus

table, "10-Sky" appears as one of the gods of the morning star which spears the feline depicted below (see Thompson 1972). *Lahun Chan*, chronologically speaking, may be the last numbered sky of significance to the Maya, figuring in the Colonial period Chilam Balam of Chumayel—for example, "10-Sky" is "raised" along with directional trees after the flood (Mediz Bolio 1952: 63-64; Milbrath 1999: 162). The "10-Sky" glyph has also been interpreted to exist in Epi-Olmec script as part of the lengthy inscription of La Mojarra Stela 1 (Kaufman and Justeson 2001: 141)—if so, this may be one of the earliest examples of a numbered sky glyph, and it occurs outside the Maya lowland area.

LAHCHAN CHAN ("12-SKY")

"Twelve-Sky" appears once in the Classic period, at Palenque in the owl headdress of God L in front of the Temple of the Cross (Fig. 14b). It is possible that this variant is the result of intentional or unintentional breakage of an original "Thirteen-Sky" glyph.

UXLAHUN CHAN ("13-SKY")

"13-Sky" appears at least three times in the Classic period and several times in the Postclassic codices. It occasionally forms a label for God L's owl headdress in Classic period ceramics. Two vessels from Naranjo, K1398 ("The Rabbit Pot") (Fig. 14c) and K7750a ("The Box of the Eleven Gods"), and a third polychrome vessel showing the

heart sacrifice of the Sun God, relate "13-Sky" to God L. Out of about 51 examples of God L in the archaeological record, only about seven depict the "Sky" glyph in the owl headdress—these glyphs are "9-Sky," "12-Sky," and "13-Sky" (Bernatz 2006: 171-172). "13-Sky" is found in several Dresden Codex contexts such as the Venus Table and as a name for the Owl deity in the Almanacs.

"1-SKY-IN-HAND"

A variant of the numbered skies known as "1-Sky-in-Hand" (Fig. 14d) is also noted, appearing at least seven times, mostly in the Classic period but also observed in the Dresden Codex. The hand component of the glyph forms the *ch'am* verb, meaning "to receive, take, grasp, or harvest" (Montgomery Online Database, accessed November 2010), resulting in what may refer to the receiving, taking, or harvesting of "a Sky." At Copan, it appears following the 9.15.0.0.0 4 Ahau 13 Yax dedication phrase of Stela B (Newsome 2001: 181). It also appears on Copan Stela F in possible relation to the sacrifice of the Jaguar God portrayed. At La Corona, it appears in a ballgame panel in which "1-Sky-in-Hand" is "played" (Mayer 1984: Pl. 14) as well as at Yaxchilan on Stela 4 in the context of warfare and capture (Newsome 2001: 118; 121). The glyph "1-Sky-in-Hand" appears in the Temple of the Inscriptions east tablet. In Postclassic Yucatan, "1-Sky-in-Hand" appears in the eclipse table of the Dresden Codex.

Figure 14: Other Numbered Sky Glyphs and Variants



Fig. 14: (a) Detail of Nim Li Punit Stela 1, (b) Detail of Palenque Temple of the Cross, (c) Detail of K1398, (d) One Sky-in-Hand glyph from La Corona Panel.

DISCUSSION OF THE NUMBERED SKY GLYPHS

The numbered sky glyphs which appear with the greatest frequency, by far, are Na Ho Chan ("First 5-Sky") and Wak Chan ("6-Sky"), the same glyphs which appear in the Quirigua Stela C three stones of creation narrative. Interesting observations can be made about these glyphs. Both "First 5-Sky" and "6-Sky" seem to relate to the Maize Lord, but in a different way than the "Raised-up Sky" and axis mundi interpretation proposed (Freidel et al. 1993). Considering that the Paddler deities are the primary Na Ho Chan lords whose central role, besides an importance to period endings and stone-settings, is to row the Maize Lord on a watery underworld journey through death, this seems to associate the Maize Lord's death and underworld journey with Na Ho Chan. Rather than being a place of resurrection, the Na Ho Chan seems to carry a strong connotation of termination, the underworld, destruction, and death according to contexts of the glyph. The glyph is associated with powerful storm deities Chaak and K'awiil, a gruesome wayob' character, as well as a fire-related deity, the Jaguar God of the Underworld, who is burned and sacrificed at the Na Ho Chan in other mythic contexts.

Important comparisons between the *Na Ho Chan* and *Chan te' Chan* ("4-Sky") are noted. Each appears in the context of jaguar *wayob'* and jaguar deities, and in association with the *B'a Tuun*, or "First/Head Stone" glyph. The *Chan te'* character appears in mythic contexts with the *Na Ho Chan*. These glyphs seem to overlap thematically in mythic content, whereas the "6-Sky" glyph is never found in association with jaguar *wayob'*, jaguar deities, the *B'a Tuun* glyph, or the *Chan te'* character.

Actions involving jaguar deities, the Paddlers, *Chaak*, and the JGU at the *Na Ho Chan* are often referred to using the phrase *Utiiy Na Ho Chan* or, "It happened at the 'First 5-Sky," whereas "6-Sky" does not receive this characterization. This *Utiiy* characterization seems to reinforce a deep temporal nature of the *Na Ho Chan*, as suggested by the language of Naranjo Altar 1 which may place the JGU *Na Ho Chan B'a Tuun* in a "count" of long-ago ancestors. In contrast, the "6-Sky" glyph commonly forms part of the names of living, historical figures, both male and female.

A dualistic quality of *Na Ho Chan* is noteworthy. For example, *Na Ho Chan* can be seen to relate to important period ending ceremonies involving the Paddler gods (as seen in various Tonina altars); at the same time, it can relate to the birth of a deity at a sacred mountain (K688), or form the title for a newborn deity (*Unen K'awiil* at Palenque). The symbols which alternate with the Stingray and Jaguar Paddlers, the *K'in* and *Ak'ab'* cartouches, have also been noted as being dualistic or oppositional (MacLeod, in Schele 1992: 257-258; Miller and Taube 1993: 128). Similarly, the role of the JGU is also dualistic—he is the warrior who kills and decapitates while at other times, he is the one burned, sacrificed, and/or crushed by a bound stone.

The most difficult numbered skies to comprehend seem to be those which appear in the context of God L—"9-Sky," "12-Sky," and "13-Sky." The cigar-smoking, jaguar-eared, traveler-merchant God L, described in a dissertation on this deity as a "progenitor of time" (Bernatz 2006: 327), plays an important and perhaps central role in era-related events such as 4 Ajaw 8 Kumk'u, as seen, for example, in the Vases of the Seven and Eleven Gods. The "9-Sky" glyph is odd in that it appears once in an *Utity Bolon Chan*

phrase, far in the north at Xcalumkin and beyond the apparent range of known *Na Ho Chan* and "6-Sky" glyphs, perhaps suggesting regional variation. The number "nine" has been interpreted as connoting "many" in other contexts of the glyph (Montgomery online database, accessed February 2011).

Based on the data presented, it is possible to discount as highly improbable the likelihood that this glyphic set refers to a layers-of-the-sky model. Arguments for this identification for the *Na Ho Chan* and "6-Sky" glyphs based on ethnographic field research (e.g., Tozzer 1907: 154) do not take into account the fact that none of the glyphs "4-Sky," "First 5-Sky," "5-Sky," or "6-Sky" are known to have survived beyond the Classic period, suggesting a fundamental ideological change between the Classic and Postclassic periods (Kubler 1969: 47).

The description of the numbered skies as mythological or supernatural places also may miss a key temporal quality of the glyphs. While, for example, the *Na Ho Chan* may be defined in rather simple terms as a "place name," what is more significant is that the "place" it refers to seems to exist in long-ago *time* where legendary events by important deities occurred, related to an ancient belief system which places the death, watery underworld journey, and rebirth of the Maize Lord as a central episode. By contrast, many of the "6-Sky" glyphs are found in the context of living people. Similarly, it has been noted that the number "six" was favored by the Maya for the naming of locations (Stone and Zender 2011: 117), possibly because it, too, evoked a strong sense of the mythic "here and now" according to Classic period ideology. In other words, glyphs such as "5-Sky" seem to reference the deeper, mythic past while "6-Sky" seems to merge

the mythic past with the present moment. The chronology which defines the temporality of these glyphs, such as when exactly in time the *Utily Na Ho Chan* phrase likely refers and why it carries the *Na*- ("First") prefix, is the subject of the next chapter. For this discussion, we first turn to the site of Palenque, where an important mythic tradition and an unassuming door jamb in the Temple of the Foliated Cross provide an important clue as to the chronology of the *Na Ho Chan* and the setting of the first stone of creation.

CHAPTER 3: The Three Stones of Creation at Palenque and Yaxchilan

This chapter connects data presented in the previous chapter with inscriptions from the sites of Palenque and Yaxchilan, arguing that the numbered sky glyphs help to provide a chronological structure which divides linear time since 4 Ajaw 8 Kumk'u into three separate periods, or the three stones of creation. Both the Palenque mythology and the origins of the ballgame described in the Yaxchilan *Ux Ahal* inscription seem to place the *Na Ho Chan* in the flow of time, revealing when the death and watery underworld journey, followed by rebirth and accession to rulership of the Maize Lord occurred, deep in the past. Further, it proposes that the number-prefixes of many Classic period mythic entities relate them to this mythic complex. The Palenque inscriptions will first be addressed because they are firmly rooted in the Long Count, followed by the ballgame mythology at Yaxchilan, whose chronology it is possible to reconstruct through common mythic themes and Distance Numbers, and with the aid of numbered sky glyphs.

INTRODUCTION TO THE PALENQUE MYTHOLOGY

The Palenque mythology places great emphasis on events set more recently in time than 4 Ajaw 8 Kumk'u which are not immediately apparent at most Classic period sites. In particular, the year 2360 B.C.E., recording the birth of three deities (Fig. 15) known as the Palenque Triad gods (GI, GII, and GIII) (Berlin 1963), is arguably the most important to the expression of the deeper past at Palenque. Massive hieroglyphic texts, as

well as some of the finest carved panels ever created by the Classic Maya, commissioned over several generations of holy lords—most importantly, *K'inich Kan Balam II* (684-702) and *K'inich Ahkal Mo' Naab III* (721-736) (Grube and Martin 2008: 172)—consistently refer to the year 2360 B.C.E. This site was known in ancient times as *Baakal*, or "Bone" (Grube and Martin 2008: 155).

Proposals for the identities of the Triad deities, said to be born over an 18-day period in late October and early November of 2360 B.C.E., have varied considerably. Attempts have been made to connect Palenque deep-time mythology with the narrative of the Popol Vuh, with the deities GI and GIII identified as Hunahpu and Xbalanque (Lounsbury 1985), or the Triad Gods as three "Heart of Sky" thunderbolt gods (Bassie-Sweet 2008: 102-124). Astronomical identities have long been suspected, with GIII as the night sun based on its central JGU image (Thompson 1950); or GIII as the sun and GI as Venus (Lounsbury 1985: 56; Kelly 1965); or, GI, GII, and GIII as Jupiter, Mars, and Saturn (Lounsbury 1989: 248) being examples of an astronomical approach.

Figure 15: Palenque Triad Gods—GI, GII, and GIII







Epigraphically, the identities GI and GIII have been difficult to identify because their names have eluded complete decipherment (Stuart 2005: 162, 170-175). GI is considered a water- and sun-associated deity with fish qualities and spondylus shell ear ornaments who played a role in the 4 Ajaw 8 Kumk'u era event. Although sharing some qualities with *Chaak*, GI may be a distinct deity who seems to disappear after the Classic period (Stuart 2005: 161, 164). A puzzling detail is that at Palenque, a deity of this same name seems to be born twice, separated by nearly eight centuries (Lounsbury 1985; Stuart 2005: 158-174). GII is considered an infant aspect of *K'awiil*, his name *Unen K'awiil* containing the word *unen*, or "baby" (Stone and Zender 2011: 31). *K'awiil* is a deity related to royal power who seems to be a manifestation of lightning (Miller and Taube 1993: 106). GIII is considered a solar deity traditionally interpreted to relate to jaguars and jaguar deities (Schele and Matthews 1998: 409).

Some of the most important attributes of these deities may be given in rare descriptions as supplementary information appearing only once in the inscriptions. For example, GII is given the titles of *Ux Ahal K'uh*, or "Three Awakenings/Creations God" (Fig. 16a) (Freidel and Schele 1991: 302) as well as a *Ch'ok Na Ho Chan Ajaw*, or "Young Lord of First 5-Sky" (Stuart 2005: 174) within the Temple of the Foliated Cross (Fig. 10a). An extended name phrase of the solar deity GIII within the Temple of the Sun relates GIII to a jaguar of sacrifice, beheaded and in profile (Fig 16b) (Stuart 2005: 176), an earlier form which is possibly observed in Tikal Stela 3. These titles seem to relate to important mythic traditions observed beyond Palenque and elsewhere in Mesoamerica, as explained in this chapter.

Figure 16: Examples of Titles Given to the Palenque Triad Gods

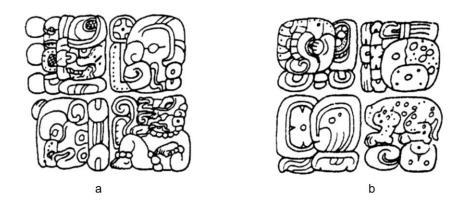


Fig. 16: (a) Ux Ahal K'uh title for Unen K'awiil, (b) Portion of GIII Title.

As observed by Lounsbury, a key question exists as to whether, and to what extent, the Palenque Triad represents purely local or pan-Mayan beliefs (Lounsbury 1985: 46). The 2360 B.C.E. date recording their birth has long been interpreted as the representation of a belief system unique to Palenque rather than as an expression of Maya belief in a more general sense. Initial interpretations have tended to apply a "family tree-like" approach to the Palenque deities stemming from a progenitor female nicknamed Lady Beastie (Freidel and Schele 1990: 244). However, this progenitor female figure has since been recognized as a representation of the Maize Lord (Stuart 2005: 180), opening a significant new lens of interpretation. At the same time, triad gods, while distinct from those at Palenque, are now known to exist at Caracol, where they are characterized by the *Na Ho Chan Ajaw* glyph (Fig. 9c), as well as at Yaxchilan, Tikal, and Dos Pilas (Stuart 2005: 160; 2011: 227). These relatively recent developments may hint that the *Baakal*

structure of time speaks to larger Mesoamerican beliefs, such as the three stones of creation.

A shared three stones of creation ideology has been suggested to exist between Palenque and Quirigua. For example, the Palenque Palace Tablet shows royal personages seated on the Jaguar, Snake/Serpent, and Shark/Water thrones (Fig. 17a) mentioned in the Quirigua Stela C narrative (Looper 2003: 161-163). Even more interestingly, several authors have identified the three stones of creation of Quirigua Stela C as being physically represented by Palenque's triadic Cross Group temples (Fig. 17b) (Freidel et al. 1993: 144; Looper 2003: 161; Bassie-Sweet 2008: 121).

This interpretation may be valid based on clues from the iconography of the temples and the deities depicted within, or associated with, the three ascending structures. For example, a jaguarian quality of the Temple of the Sun is suggested by the central image of the head of the Jaguar God of the Underworld on a shield above what may be a jaguarian altar (Fig. 17c) raised by two deities including God L, a deity important to 4 Ajaw 8 Kumk'u according to the Vases of the Seven and Eleven Gods; Snake-footed *K'awiil* would seem to represent the serpent quality of the Temple of the Foliated Cross (Looper 2003: 161), a structure dedicated to this deity; the Temple of the Cross is strongly associated with GI, a deity linked to water (Stuart 2005: 168), while the Cross temple, itself, has been identified as a "water mountain" (Freidel and MacLeod 2000: 6).

Figure 17: Altar-Thrones and Triadic Temples at Palenque

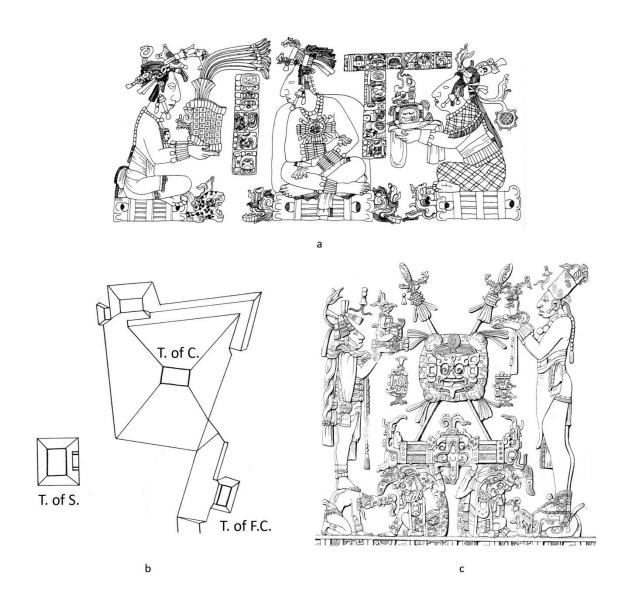
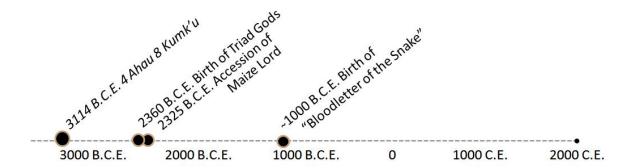


Fig. 17: (a) Jaguar, Snake, and Shark/Water Thrones, Palenque Palace Tablet, (b) Overhead view of Palenque's triadic Cross Group, (c) Detail, Temple of the Sun showing central JGU image on shield above a possible jaguarian altar.

According to the interpretation that the triadic Cross Group is a physical representation of the three stones of creation, the Temple of the Sun would be synonymous with the jaguarian first stone of creation, described as the "lowest level of cosmic ordering" and associated with the underworld (Baudez 1996; Stuart 2006: 88). The intermediate Temple of the Foliated Cross would represent the second stone of creation, while the dominant Temple of the Cross would be a representation of the third stone of creation, interpreted by Looper (2003: 160) to be the most youthful of the three stones of creation.

At Palenque, special attention is paid to the day *Bolon Ik'*, or 9-Wind, chosen to symbolize important events in the distant past as well as for scheduling events of great prestige within historical time. Two 9-Wind dates are cited in the Temple of the Cross in mythic time since 4 Ajaw 8 Kumk'u and the "*Yax* Three Stones/Hearth Place." The first 9-Wind date in 2360 B.C.E. referring to the (re-) birth of GI, followed days later by the birth of the other Triad gods is well established according to error-free Distance Numbers. Roughly 35 years later, a second 9-Wind date is recorded at about 2325 B.C.E. marking the accession to power of the Maize Lord (Stuart 2005: 180). A third mythic date, at either 1012 B.C.E. or 993 B.C.E. (depending on Distance Number reconstructions) (Grube and Martin 2000/2008: 159), is then counted forward to from the second 9-Wind date. This final deep-time date, referred to in this study as occurring at about 1000 B.C.E., completes the rendering of sacred, mythic history at Palenque and bridges the archaic past with a time period contemporary with the Olmec (Grube and Martin 2000/2008: 159). A timeline is shown in Figure 18.

Figure 18: Timeline of 9-Wind Dates and Birth of "Bloodletter of the Snake"



The Distance Numbers connecting key events in Palenque sacred history recorded in the Cross group following 4 Ajaw 8 Kumk'u, based on Stuart (2006) and Lounsbury (1985), are provided below. It should be noted that errors in the Palenque DN's have caused great confusion regarding the proper chronology (see Stuart 2005: 81-85; 2006: 118); the 2.0.0.10.2 and 5.7.11.8.4 dates reflect modern reconstructions rather than the precise numerology indicated by the original artists and scribes at Palenque:

13.0.0.0.0	4 Ajaw 8 Kumk'u (3114 B.C.E.) "Yax Three Stones/Hearth Place"	
1.9.2		
13.0.1.9.2	13 Ik' End of Mol (3112 B.C.E.) House dedication by "Elder" GI
1.18.3.12.0		
1.18.5.3.2	9 Ik' 15 Keh (2360 B.C.E.)	Birth of GI Triad Deity
0.4		
<u>1.18.5.3.6</u>	13 Cimi 19 Keh (2360 B.C.E.)	Birth of GIII Triad Deity
0.14		
1.18.5.4.0	1 Ajaw 13 Mak (2360 B.C.E.)	Birth of GII (<i>Unen K'awiil</i>) Triad Deity
1.15.6.2		
2.0.0.10.2	9 Ik' 0 Sak (2325 B.C.E.)	Accession of Progenitor/Maize Lord
3.7.10.16.2		
<u>5.7.11.8.4</u>	1 K'an 2 Kumk'u (993 B.C.E.)	Birth of "Bloodletter of the Snake"
	1.9.2 13.0.1.9.2 1.18.3.12.0 1.18.5.3.2 0.4 1.18.5.3.6 0.14 1.18.5.4.0 1.15.6.2 2.0.0.10.2 3.7.10.16.2	1.9.2 13.0.1.9.2 1.18.3.12.0 1.18.5.3.2 0.4 1.18.5.3.6 0.14 1.18.5.4.0 1.15.6.2 2.0.0.10.2 3.7.10.16.2 13 Ik' End of Mol (3112 B.C.E.) 9 Ik' 15 Keh (2360 B.C.E.) 13 Cimi 19 Keh (2360 B.C.E.) 1 Ajaw 13 Mak (2360 B.C.E.) 9 Ik' 0 Sak (2325 B.C.E.)

Evidence is explored for the duration of this chapter which suggests that the legendary births of important deities at these intervals, as detailed within the Cross Group at Palenque, represent distinct changes in time ideology which correspond to the sequence of the three stones of creation. The important 2360 B.C.E. date, the first of paired 9-Wind dates, stands out as particularly relevant to Palenque's understanding of time. Specifically, the year 2360 B.C.E. seems to have been chosen to represent a change in era known as Na Ho Chan, when the first stone of creation following 4 Ajaw 8 Kumk'u was set (i.e., "terminated") according to the deep-time narrative. The deity GI, who plays a significant role in the 4 Ajaw 8 Kumk'u era event (Stuart 2005: 164) is reborn at the first 9-Wind date in 2360 B.C.E. At the same time, the deity *Unen K'awiil*, born in 2360 B.C.E., is described as a Ch'ok Na Ho Chan Ajaw, or "Youthful First 5-Sky Lord" (Fig. 10a), within the Temple of the Foliated Cross, a structure which may be a physical representation of the second stone of creation. The two successive 9-Wind dates found in the Cross Tablet (at 2360 B.C.E. and 2325 B.C.E.) give credence to the notion of a "first" and "second" change in time ideology in the 24th century B.C.E.

The birth of "Bloodletter of the Snake" (Grube and Martin 2008: 159) at about 1000 B.C.E. also seems to play an important role in the organization of time according to the Cross Group narrative, enough so that *Kan Balam* impersonates him on the front panel of the Temple of the Cross, a structure which provides the date of his birth (Grube and Martin 2001: 35). By interpreting the Palenque 9-Wind dates and the birth of "Bloodletter of the Snake" as three era dates, linear time can be seen to be divided into three basic units since 4 Ajaw 8 Kumk'u: the first period lasting about 754 years, the

second period lasting approximately 1,360 years, and the third continuing into the historical period and modern times since about 1000 B.C.E. (Fig. 18). Adding confusion to this structure is that the second of these units begins with *two* distinct 9-Wind dates in the 24th century B.C.E. The transition from the first unit of time to the second unit would thus be based on a pairing—first and second 9-Wind dates—separated by a very brief interval lasting about 35 years.

MYTHIC NARRATIVE OF THE MAIZE LORD'S UNDERWORLD JOURNEY AND REBIRTH

The Classic period "core myth" of the underworld journey of the Maize Lord, followed by his rebirth, is best understood through ceramic vessels. According to a study by Quenon and Le Fort (1997), a basic sequence of events involves the Maize Lord's entering into water, his costuming by women, a canoe journey, and his resurrection from a turtle shell. The canoe journey is the act of the Paddler deities—statistically, the principal *Na Ho Chan* lords who set the first stone of creation according to Quirigua Stela C. Scenes which depict elements of this mythic narrative include K731 (Fig. 4d), K3033 (Fig. 19a), and a bone from Tikal Burial 116 (Fig. 19b). The Maize Lord's hand gesture in these latter scenes has been interpreted to represent mourning (Nikolai Grube personal communication 2011), and is associated with death according to Jimbal Stela 1 (see Fig. 12c).

Figure 19: Maize Lord Underworld Scenes with Paddler Deities

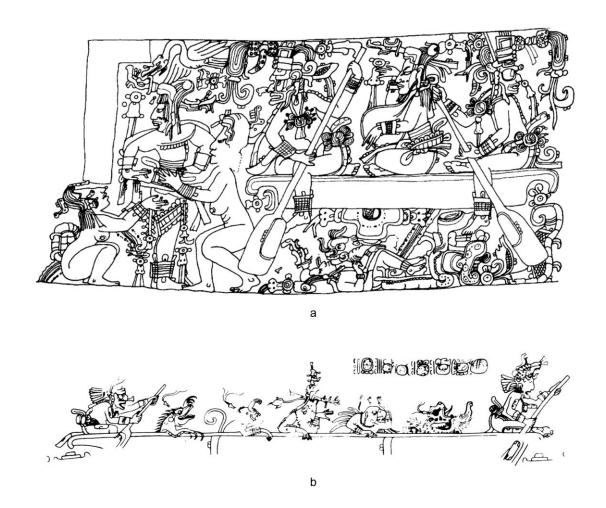


Fig. 19: (a) Maize Lord underworld journey, K3033, (b) Bone from Burial 116, Tikal.

An important aspect of the Maize Lord's underworld journey according to Classic period depictions is a relationship with symbolism of the *K'an* cross, also interpreted in some contexts as the color "Yellow." Depictions of this mythic narrative depict *K'an* as a marker for the Waterlily monster (Fig. 20a), the oars held by the Paddlers (Fig. 20b), or

the turtle (*K'an Ahk*) of resurrection (Fig. 20c). Rebirth scenes often depict the Maize Lord as if literally emerging from *K'an*. A mythic *K'an Ahq* peccary may also be based on this principle, as "turtle" and "peccary" are nearly homophonous in many Mayan languages (Kaufman 2003: 562, 634), and the Maize Lord has been interpreted to emerge from a peccary in one example (Freidel et al. 1993: 84). A connection between *Na Ho Chan* and *K'an Tuun Chaak*, named with the Paddlers, seems to be depicted in Ixlu Altar 1 (Fig. 12b).

In the Palenque Cross Group, vivid depictions of *K'an* and maize are found within the Temple of the Foliated Cross (Fig 20d). Here, a central maize tree rises from a *K'an* cross beside an image of the *Yax Hal Witznal*, or "creation mountain" (Freidel and Schele 1991: 303-304), which can also receive the *K'an* attribute in mythic contexts (Saturno et al. 2005: 15). The *K'an Juub Matwiil* shell (Fig. 20e) to the right of the maize tree, out of which a *Sak*-headed creature emerges, also seems to relate *K'an* to watery origin (David Stuart personal communication 2011). The panels which once decorated the outside of the Foliated Cross structure, now in the Palenque bodega, are rich with *K'an* symbolism. Palenque thus shows a strong interest in identifying *K'an* within a temple that is dedicated to *Unen K'awiil*, a god born in 2360 B.C.E. whose titles include *Ch'ok Na Ho Chan Ajaw* within a structure which may be a physical representation of the second stone of creation, the Snake throne-stone.

Figure 20: K'an in Underworld, Origin, and Emergence Scenes

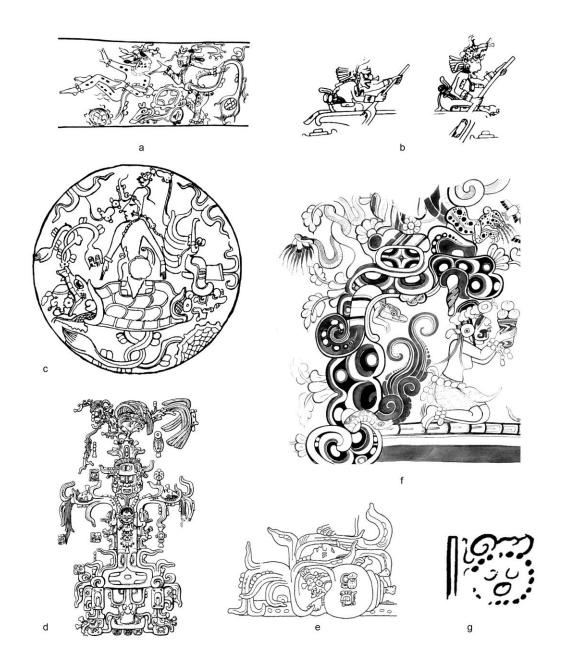


Fig. 20: (a) Waterlily Serpent marked with *K'an* cross, (b) Detail of Bone from Burial 116, (c) *K'an Ahk* turtle emergence scene, (d) *Na Te' K'an* Tree, Palenque Foliated Cross Tablet, (e) *K'an Juub Matwiil* detail from Temple of the Foliated Cross, (f) Maize Lord in cave of emergence scene showing *K'an* cross, (g) "5 Flower Place" glyph.

By defining the *Na Ho Chan* as an era-related term referring to 2360 B.C.E.—and by relating it to ceramic scenes which depict the Paddlers, a K'an-associated journey through death, and the resurrection of the Maize Lord—it is possible to speculate that the Maize Lord's accession to rulership at the second 9-Wind date in 2325 B.C.E. may represent a culminating event of this mythic narrative. The importance of the Maize Lord's accession extends beyond Palenque and has been identified in the recentlydiscovered, Late Preclassic San Bartolo murals (Saturno et al. 2010: 84). The first wall to be discovered and studied, the north wall, has been interpreted as a scene of emergence involving the Maize Lord from a K'an-marked cave on the surface of a plumed serpent (Fig. 20f). This scene, probably an early representation of "Flower Mountain," whose glyph often bears the "Five" prefix (Fig. 20g), is accompanied by a gourd birth scene (Saturno et al. 2005: 15-51) out of which the fifth of five infants seems to explode triumphantly. Scenes from the more recently-excavated west wall at San Bartolo may weave together elements of the myth including the Maize Lord's death, a Chaak-assisted turtle emergence scene, and his seating into rulership upon a raised throne (Saturno et al. 2010: 72, 84).

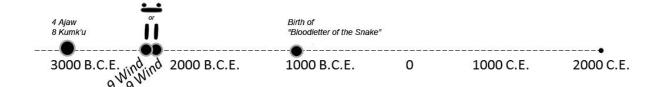
The mythic narrative of the Maize Lord's death and watery underworld journey seems to be associated with *Na Ho Chan* as well as what might be termed the *K'an Tuun*, a short, approximately 35-year period of time between Palenque's paired 9-Wind dates out of which he triumphantly emerges and accedes to power at the second 9-Wind date in 2325 B.C.E. This culminating act of rebirth of the Maize Lord (typically depicted alone, or with the aid of the Hero Twins or *Chaak*) and his accession to power, however, seem

no longer to be *Na Ho Chan* and underworld-associated events. Instead, the second 9-Wind date seems to represents a distinct change in time ideology, the equivalent of "Second 5-Sky" which is ideologically removed from *K'an* and the underworld.

THE CHALLENGE OF REPRESENTING DOUBLE 9-WIND AND "SECOND 5-SKY"

By identifying the birth of Triad deities in 2360 B.C.E. as related to *Na Ho Chan*, an intriguing question exists as to how the Maya may have referred to the second of paired 9-Wind dates in 2325 B.C.E., for no "Second 5-Sky" glyph is known from Maya writing. This complication requires creativity and may have been solved by the invention of the "double-Five" (" || ") motif, the "10-Sky" glyph, as well as the use of "two-Five" (" :| " or "Seven") for marking entities which relate to the mythic complex of the Maize Lord's underworld journey followed by his emergence and/or accession into the Fifth era. A timeline illustrating how these conventions seem to relate to the Palenque chronology is shown in Figure 21.

Figure 21: Proposed Chronological Origin of "II" and "two-Five" Entities



Examples of the use of the "two-Five" (":1" or "Seven") convention in reference to mythic entities associated with this complex may be considered common. For example, the "two-Five" (or "Seven") numeral may mark the turtle out of which the Maize Lord is reborn (Fig. 22a), or may mark the Waterlily monster (Fig. 22b) depicted in some Maize Lord underworld and rebirth scenes in the company of the Hero Twins. A "Seven Water Place" glyph (Fig. 22c), such as found in K1202, relates to the watery underworld dressing of the Maize Lord with the aid of Hero Twins (Quenon and Le Fort 1997: 893). Similarly, codex-style underworld scenes (e.g., K521, K1003, K1152, K1644, K1815, K1370, K1815, K2207, K2008, K4013) almost exclusively use the number "Seven" as the Tzolk'in and/or Haab' position, often in conjunction with the day sign Muluk, or "Water." Another interesting example is the *Itzam K'an Ahk* name glyph, such as commonly taken by Piedras Negras kings. This "two-Five" (":1" or "Seven") prefix may identify *Itzam K'an Ahk* as part of the mythic complex relating to the origins of maize (Fig. 22d).

The "two-Five" glyph most commonly used to refer to *K'an* as a time-related concept may be the *Wuk Ik' K'an Nal*, or "Seven Black-Yellow Place" glyph (Fig. 22e). Often appearing fused to the top of a snake-like head, this glyph appears together with or separate from another "Nine-" prefixed head of unknown meaning. Given considerable treatment by Kubler (1977), "Seven Black-Yellow Place" glyphs are common in the portrayals of kings on stelae and can be held in the hand, rest on ceremonial bars, or float in space (Miller and Taube 1993: 151).

Figure 22: Use of "two-Five" (": I" or "Seven") with Mythic Entities



Fig. 22: (a) Detail of Turtle from Maize Lord Resurrection Scene K1892, (b) Seven-prefixed Waterlily Monster, (c) "Seven Water Place" glyph, (d) *Itzam K'an Ahk* name glyph, Lintel 3, Piedras Negras, (e) "Seven Black-Yellow Place" in Palenque Temple of the Sun, (f) "Seven Yellow Place" Variant, (g) "Seven-*K'an*" variant.

While the *Wuk Ik' K'an Nal* glyph is believed to relate to maize (Stone and Zender 2011: 127), *K'an* in this context again appears to relate not to color or directional symbolism but to *K'an'*'s importance to the ordering of mythic time embodying the watery underworld journey of the Maize Lord, the turtle of rebirth, "creation mountain," and the *tuun* out of which maize or the Maize Lord emerges. Variants of the "Seven Black-Yellow Place" glyph demonstrate that the *Ik'*, or "black," element does not need to be present, as seen in the Onyx marble bowl discussed by Kubler (Fig. 22f) and observed on an early Classic censer which depicts a "Seven-*K'an*" glyph with corn emerging (Fig. 22g) (Taube 2004: 144).

As a possible era-related term related to the underworld and the origins of maize, the *Wuk Ik' K'an Nal* would seem to have a dualistic or complementary quality similar to the *Na Ho Chan*. But unlike the *Na Ho Chan*, the "Seven Black-Yellow Place" glyph seems to refer to, include, or take into account, both the "First 5-Sky" *and* the "Second 5-Sky" (i.e., the paired 9-Wind dates) which begin with death but end with the triumphant rebirth and accession to power of the Maize Lord.

While the 2360 B.C.E. and 2325 B.C.E. dates emphasized at Palenque may be interpreted as locally-contrived inventions, these dates rather seem to provide the chronology to explain the origin of many Mesoamerican traditions and mythic entities. The "core" narrative of the Maize Lord's death, underworld journey, and rebirth in all aspects seems to be chronologically separate from 4 Ajaw 8 Kumk'u and the "*Yax* Three Stones/Hearth Place." Instead, the mythic narrative seems to relate to the setting, or metaphorical completion, of the first stone of creation, a 754-year period of time

following 4 Ajaw 8 Kumk'u according to Palenque inscriptions. Whereas 4 Ajaw 8 Kumk'u and the "Yax Three Stones/Hearth Place" appears to represent the completion of the Third and the beginning of a Fourth age of time, the complex myth of the Maize Lord's death and underworld journey, followed by rebirth and accession, seems to represent the termination of the Fourth and beginning of a new, Fifth era which originates from Na Ho Chan and K'an. The deep-time narrative therefore requires an additional stone to be set at Na Ho Chan, the fourth stone in a sequence of linear time and the first stone of creation when counting from 4 Ajaw 8 Kumk'u. Symbolism of Yax and K'an, on a mythic level, seem to connote period ending as well as rebirth and renewal.

These proposed era dates are so deep in time and so close to 3114 B.C.E. that they might be considered part of a more esoteric tradition which was the privilege of sites or specific lineages which, for reasons which remain unexplained, were connected to a day count which extended much deeper into the archaic past, as theorized by Rice (2007: 174-178, 203) and other scholars. Regardless of Palenque's archaeological history, the great antiquity of the day count that *Baakal* kept may only be hinted at by surviving, carved stone monuments. Other sites seem to have known of important mythic entities such as *Na Ho Chan* by name and association, and represented them artistically, but not through a chronology that was tied to the Long Count calendar, nor emphasized in such prominence and beauty as at Palenque.

Although it is difficult to cite direct evidence that the "two-Five" (:1" or "Seven") motif specifically was chosen, long ago, to refer to a "double" change of era in the 24th century B.C.E. which began a Fifth and modern age of corn, these and further

examples cited later in this chapter may form a "set" of entities whose origin is best explained by these Palenque dates. As a possible physical representation of the three stones of creation containing inscriptions which organize time into three basic units, the Palenque Cross Group may provide a legitimate "theory of history" whose importance for explaining wider patterns of belief has not been fully recognized.

"6-SKY" AND THE ORDERING OF TIME

By applying two interpretations—one, that the Triadic Cross group temples physically represent the three stones of creation, and second, that the three stones of creation are divisions of time since 4 Ajaw 8 Kumk'u—the three Palenque Cross Group structures, like stelae, may be seen to literally embody the units of time to which their inscriptions refer. This might explain why Palenque never adopted the stela-erecting tradition common elsewhere in the Classic Maya world (although other explanations, such as a lack of easily accessible, quality stone, are also plausible).

The Temple of the Sun has been discussed as the "lowest level" of time and contains within it a 4 Ajaw 8 Kumk'u text, the 2360 B.C.E. date, an image of the sacrificial JGU on a war shield, and a possible representation of a jaguar altar. The Temple of the Foliated Cross has been discussed as an intermediate level containing the 2360 B.C.E. date, *Unen K'awiil's Na Ho Chan* title, and *K'an* symbolism related to the origins of maize. If the Temple of the Cross were a representation of the third stone of creation and the "highest" order of time, we might expect some reference to "6-Sky" in

this temple—in fact, the Temple of the Cross structure/platform is named "6-?-Sky" (Stuart 2006: 114).

The use of the "6-Sky" glyph within this temple, in the Cross Tablet, presents a puzzle, for the deity GI is said to dedicate a "house in the north" 1.9.2 days after 4 Ajaw 8 Kumk'u, calling it the "6-?-Sky' House" (Fig. 23a). While this house dedication has been interpreted as part of a larger "creation" myth (Freidel et al. 1993), it may simply refer to the establishment of the Temple of the Cross structure, itself, as the northernmost of the Cross Group, perhaps designed to house the vastness of pre-4 Ajaw 8 Kumk'u time represented by the "*Yax* Three Stones/Hearth." A description of the house which follows, the "8-GI's House" glyph, has been seen to be represented by architectural features in the original stucco façades (Stuart 2006: 111). Either way, the dedication of a temple named "6-?-Sky" shortly after 4 Ajaw 8 Kumk'u is an anachronism according to the proposal that 4 Ajaw 8 Kumk'u established the first stone of creation known as *Chan te' Chan*, or "4-Sky," represented in the Cross Group by the lowermost Temple of the Sun.

The rationale for applying the "6-?-Sky" name to the Temple of the Cross shortly after 4 Ajaw 8 Kumk'u may be comparable to another anachronism observed in the inscriptions, when important individuals, retrospectively, are named "holy lords" at their births, even though accession to the throne did not actually occur until much later in life. Similarly, in this context, the "6-?-Sky" title seems to insert a "modern" name into a more ancient setting. When exactly the Temple of the Cross actually earned this "6-Sky" title seems to relate to the termination of the second stone of creation, the Snake throne/stone. In the Palenque mythology, it is the birth of "Bloodletter of the Snake" in

about 1000 B.C.E. (Grube and Martin 2000/2008), also highlighted in the Cross tablet, which seems to metaphorically represent this final important change in time ideology. Kan Balam impersonates this figure on the front panel of the Temple of the Cross (Stuart 2006: 112) beneath the prominent "6-?-Sky" title in a cosmically-infused image which may re-enact this final act of "creation" from the time of the Olmec (Fig. 23b).

Figure 23: "6-Sky" and the Temple of the Cross

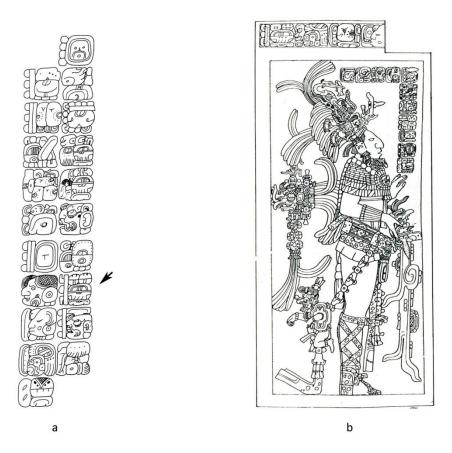


Fig. 23: (a) Dedication of "6-?-Sky" house 542 days after 4 Ajaw 8 Kumk'u, Cross Tablet (b) Kan Balam impersonates "Bloodletter of the Snake," Temple of the Cross.

Another curious use of the "6-Sky" glyph in the Cross Group is as an apparent title for *Ux Bolon Chaak*, or "Three Nine/'Many' *Chaak*" within the Temple of the Foliated Cross (Fig. 13d), dedicated to *Unen K'awiil*. The location of this "6-Sky-*Chak*" reference is interesting, for "6-Sky" is primarily associated with the Temple of the Cross, not the Temple of the Foliated Cross. If there is a complementary relationship between these deities, it may be *Unen K'awiil*'s title of *Ux Ahal K'uh* (Fig. 16a) that provides an important clue. Like the *Ch'ok Na Ho Chan Ajaw* title (Fig. 10a), the *Ux Ahal K'uh* description seems to provide an important link between the Palenque mythology and wider Mesoamerican traditions to which the birth of this god in 2360 B.C.E. relates.

UX AHAL, THE MYTH OF THE BALLGAME

The origins of the ballgame lie deep in the Mesoamerican past. The first ball court to be identified archaeologically may be from Paso de la Amada, Chiapas, dating to at least as early as 1350 B.C.E. (Clark 2004: 57). Among the Gulf Coast Olmec, full-figure ballplayers have been identified at San Lorenzo and La Venta (Carlson 1981: 143; Taube 2004: 13), while rubber balls have been found in the nearby spring at El Manatí dating to circa 1600 B.C.E. (Ortiz and Del Carmen Rodriguez 2006: 79). This makes the ballgame one of Mesoamerica's earliest identifiable, widespread cultural traits (Kirchhoff 1943).

The symbolism of the ball game has been the subject of various theories which reveal the potential for multiple levels of meaning. Astronomical interpretations,

associating the movements of the sun and planets (Cohodas 1991; Miller and Taube 1993: 43), as well as the symbolism of agricultural fertility (Schele and Freidel 1990) have been suggested. Ritual warfare seems to have been expressed through the ball game, with high ranking captives meeting their death within the chasm (Miller and Houston 1987: 57). Koontz considers the rebirth of a hero likened to the growth of maize to be of fundamental importance (Koontz 2008: 12). Similarly, Gutierrez likens the ballcourt chasm to the cleft in the mountain of creation from which maize or the Maize Lord emerges (Gutierrez 1996). Schele also sees the ballcourt as a sacred space which "reestablished the time and space of a past Creation" (Freidel et al. 1993: 350).

The Popol Vuh has long been used as a model for interpreting the ancient Maya ballgame, in which two ballplayer heroes descend to the underworld to play and eventually triumph against the Lords of Death, aiding in the resurrection or rebirth of their deceased father (Tedlock 1985). Yet some researchers have, more recently, questioned the Popol Vuh's applicability as a model for understanding the Classic period ballgame based on new hieroglyphic readings. Analysis of ballgame-related inscriptions at Classic period sites leads Tokovinine to state, "It is no longer possible to assume that there is a direct correspondence between the Classic ball game tradition and the Popol Vuh story" (Tokovinine n.d.). Previous interpretations of ballplayers which were assumed to represent the Hero Twins (e.g., ballcourt markers at Copan), through advancements in the reading of hieroglyphic texts, are now known to depict both historical kings as well as mythic figures which do not have clear Popol Vuh equivalents (Tokovinine 2002: 3).

Figure 24: *Ux Ahal* Glyphs and Monument

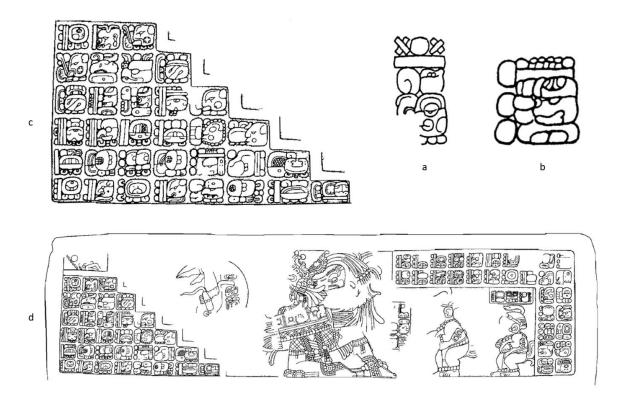


Fig. 24: (a) *Wak Ehb Nal* glyph, (b) *Ux Ahal* glyph, (c) Yaxchilan Panel 7 left side, close-up, (d) Yaxchilan Panel 7, complete.

The question of continuity versus change in symbolic meaning of the ballgame from the Classic period to the Popol Vuh hinges on interpretations of mythology found at Classic period sites. Classic period ball courts are referred to by two names in the inscriptions: *Wak Ehb Nal*, or "6 Stair-Place" (Fig. 24a) and *Ux Ahal Ehb*, or "Three Creations, Awakenings, or Conquests Stairway" (Fig. 24b) (Freidel and Schele 1991:

302; Stuart 2005: 177). There are four known *Ux Ahal Ehb* ballcourts identified by inscriptional records from the Classic period, found at Yaxchilan, Copan, Naranjo, and Tonina (Freidel et al. 1993: 354).

Yaxchilan's Panel (or Step) 7 (Fig. 24c, d) is considered to be the most complete version of the *Ux Ahal* myth of the ballgame (Grube and Martin 2008: 130). This panel is divided into two parts: a deep-time, mythic section on the left and a historical section on the right, with the image of a Yaxchilan holy lord in ballplayer garb in the middle. This left-right division between deep, mythic time and historical time is similar to the Palenque Cross group tablets (David Stuart personal communication 2011). The *Ux Ahal* myth contains a sequence of three *chak-b'aah*, "axing" or beheading events (Stuart 2005: 177) over thousands of years which seem to "float" in undefined time. Close inspection of the Distance Numbers between the three *Ahal* events on the original monument yields the chronology below. Unfortunately, as seen at Palenque, the Yaxchilan Distance Numbers also contain errors, further obscuring the chronology they represent. No attempted reconstruction of these Distance Numbers is provided:

	(<u>Undefined</u>) 5.19.0.17	13 Manik 5 Pax	"Axing" of Maize Lord
+		9 Kan 12 Xul	"Axing" of Unidentified Deity
1		1 Ajaw 13 Xul	"Axing" of Unidentified Deity at the "6 Shell-in-Hand Place" (Freidel et
			al. 1993), or Wakmihnal (Tokovinine 2002)

The "6 Shell-in-Hand Place" glyph, read phonetically as *Wakmihnal*, is important to the meaning of the ball game during the Classic period. In Panel 7, it is prefixed by the *Ik'waynal*, or "Black Hole Place" glyph, related to the underworld (Freidel et al. 1993: 351; Barrois and Tokovinine 2005). An example of this glyph is the central ballcourt marker of Copan, which portrays a quadripartite portal in which the 13th holy lord of the site, known as "18 Rabbit," faces an underworld deity with the name *Jun Ajaw Wakmi*, translated as, "One Lord (from) *Wakmihnal*" (Tokovinine 2002: 2).

Two primary methods have been used to attempt to define these "floating" *Ux Ahal* dates in the proper flow of time, the first of which relies on Yaxchilan Panel 7, alone. On the monument's right-hand side, a Long Count date which refers to the dedication of the stairs is given in rare extended notation as

13.13.13.13.13.13.13.13.13.13.13.13.6.9 3 Muluk 17 Mak (October 19, 744). With the lack of a clear chronological anchor for the three "axing" events, the *U-tz'ak-aj* glyph which ends the text on the left has been seen as a clue to the chronology. Since the *U-tz'ak-aj* glyph, meaning "was counted" or "was put in order," is also known to introduce Distance Numbers, the *Ux Ahal* chronology on the left has been interpreted to connect to the date of the monument's dedication on the right side by way of a huge,

13.13.13.13.13.13.13.13.13.13.6.9 Distance Number. Because there is no *I-ut* phrase to confirm that the Long Count numerology is a Distance Number, this method of placing the *Wakmihnal* billions of years in the past seems illogical.

A second method used to reconstruct the *Ux Ahal* chronology uses inscriptions at other sites which refer to the *Wakmihnal*, or "6 Shell-in-Hand Place," in the flow of deep-

time, namely, Copan and La Corona. Copan Stela J refers to the *Wakmihnal* using a Distance Number which likely counts back 14.0.0.0.0 (5,600 *tuuns*, or 360-day years) from a historical date given as 9.0.18.0.0 (Grube and Schele 1990: 3-4), yielding a date thousands of years before 4 Ajaw 8 Kumk'u around 5066 B.C.E. Similarly, in La Corona Panel 1, a Distance Number of 10.6.9.17.4 counts back from the historical date 9.12.5.7.4 (David Stuart personal communication 2010), approximately to the year 3805 B.C.E. Both Copan and La Corona, therefore, show a strong interest in placing *Wakmihnal*-related events before 4 Ajaw 8 Kumk'u, though each site differs in its representation by thousands of years.

There is another method to establish the chronology of the Yaxchilan *Ux Ahal* inscription and the mythic origins of the ballgame that has not been explored, which focuses on the fact that Yaxchilan Panel 7 is part of a sequence of ballgame-related scenes, not an isolated text. The previous panel, Panel 6, depicts a similar ballgame scene that also contains a text in its lower, left-hand corner (Fig. 8b). It starts with an unreadable (perhaps un-carved) Calendar Round date followed by the phrase *Pitz Chan te' Chan Utily ohm*, or "4-Sky' is played, it happened at the (Five) Chasm(?)" (David Stuart personal communication 2010; Freidel et al. 1993: 351).

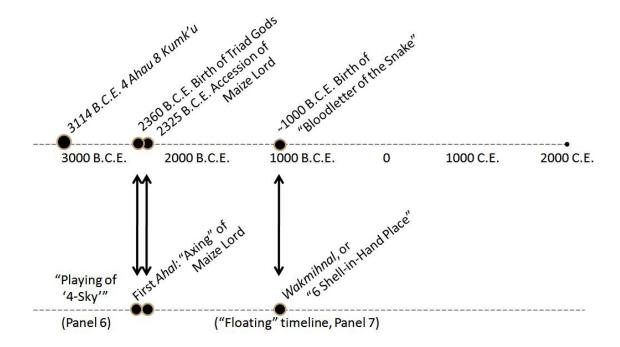
Given the proposal that *Chan te' Chan*, or "4-Sky," is analogous to the first stone of creation which terminates at the *Na Ho Chan*, this is an important clue that Yaxchilan Panels 6 and 7 are a related pair. Using "4-Sky" as an implied Distance Number between 4 Ajaw 8 Kumk'u and the "axing" of the Maize Lord which begins Panel 7, the *Ux Ahal* Distance Numbers can be interpreted to no longer be "floating," but rather, to be arranged

in the same way that 9-Wind dates are reckoned at Palenque—by counting forward from 4 Ajaw 8 Kumk'u, not backward from an historical date. In order to confirm this hypothesis, the Yaxchilan Distance Numbers between the three *Ux Ahal* dates need to be compared both chronologically and thematically to the Distance Numbers between 9-Wind dates and the birth of "Bloodletter of the Snake" in the Palenque mythology.

COMPARING THE PALENQUE AND YAXCHILAN MYTHOLOGIES

Upon comparing the Palenque and Yaxchilan mythologies (Fig. 25), it is evident that both have chronological and thematic similarities. For example, the Distance Numbers between the second and third *Ahal* at Yaxchilan (3.7.10.14.11) are remarkably similar to the reconstructed Distance Numbers between the second 9-Wind date and the birth of "Bloodletter of the Snake" at Palenque (3.7.10.16.2), differing by just 31 days. Similarly, the first two *Ahal* dates may be analogous to the paired 9-Wind dates suggested previously to represent *Na Ho Chan* and "Second Five-Sky." That is, the first *Ahal* in the Yaxchilan mythology—the "axing" of the Maize Lord—may be comparable to *Na Ho Chan*, already noted for its strong association with the death and underworld journey of the Maize Lord. It is tempting to suggest that the discrepancy between the first and second *Ahal* (117 years) and first and second 9-Wind dates (35 years), is the result of Yaxchilan's use of an approximation for *Chan te' Chan* ("4-Sky") based on the multiplication of sacred numbers (13 X 13 X 4 = 676), although this observation may be speculative.

Figure 25: Comparison of Palenque and Yaxchilan Mythologies



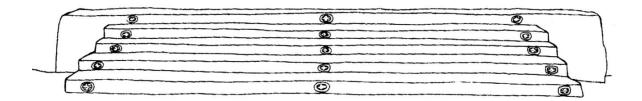
This comparison of the mythologies at Yaxchilan and Palenque would make the *Wakmihnal* or "6 Shell-in-Hand Place," also the third *Ahal*, synonymous with the birth of "Bloodletter of the Snake" in the Palenque mythology, argued to mark the origins of "6-Sky." Each mythology therefore seems to refer to the same ideological change based on a "sixness" of time, at about 1000 B.C.E. An observation of Tokovinine and Fialco (2007: 3), that the "6-Sky Place" glyph is likely to be part of a "set" of ballgame-related, "Six-" prefixed entities that include *Wakmihnal* as well as *Wak Ehb Nal*, or "6 Stair Place," supports this identification. This notion of number-prefixed "sets" also brings up the interesting question of whether other mythic "sets" exist which are ideologically

related to "4-Sky" and "5-Sky," an important topic which deserves greater attention than provided here.

Given these clues, it seems likely that the *Ux Ahal K'uh* title given to the Triad deity *Unen K'awiil* at Palenque, born in 2360 B.C.E. and described as the "Youthful 'First 5-Sky' Lord," relates this deity to the chronology of *Ux Ahal* found at Yaxchilan. Similarly, the deity name *Wak Chan Chak Ux Bolon Chaak*, or "6-Sky' *Chak*, Three Nine/'Many' *Chaak*" found in the Temple of the Foliated Cross seems to refer to *Chaak*'s role in the three *Ahal*, or "creation" events—this is quite logical considering that *Chaak* is found in contexts of *Na Ho Chan*, the splitting of the turtle shell of the Maize Lord's resurrection, and "6-Sky."

A strong possibility also exists that ballgame stairs, which have been noted as a major focus of Classic period ballgame inscriptions (Miller and Houston 1987: 53) carry a temporal aspect, whereby *Wak Ehb Nal*, or "6 Stair Place," refers to the "sixness" of mythic time established at the Wakmihnal, the "6 Shell-in-Hand Place." Each new step, in this scenario, would correspond to an ideological change in era and the setting of a new creation stone. This interpretation seems to be supported by a variation of stairs known as *K'an Ehb* (Fig. 26), marked by *K'an* symbols and which contain only five stairs (Saturno et al. 2010: 64).

Figure 26: K'an Ehb Stairs at Coba



CONTINUITY AND CHANGE IN THE MEANING OF THE BALLGAME

With evidence that the Yaxchilan *Ux Ahal* ballgame mythology reflects the Palenque deep-time structure—dividing linear time since 4 Ajaw 8 Kumk'u into time periods known as the three stones of creation—it is possible to revisit the question of continuity between Classic period and Popol Vuh ballgame symbolism. A narrative which begins with the "axing" of the Maize Lord at the first *Ahal* at Yaxchilan is followed many years later by the "accession" of the Maize Lord at the second 9-Wind date at Palenque. While each site presents these events within strongly localized styles, contexts, and eccentricities (perhaps to be expected considering the great antiquity involved), they seem to form part of a common, mythic narrative. These paired events, the Maize Lord's sacrificial death followed many years later by his "accession," would serve much like "book ends" between which a relatively brief time period became the setting for a wealth of mythic traditions involving the Maize Lord's journey to the watery underworld and eventual resurrection or re-emergence.

Elements of Classic period ballgame mythology suggest a connection between era-based time concepts and deities important to the stone-setting sequence. For example, deities related to the Classic period ballgame include *Chaak* and the Jaguar God of the Underworld (Tokovinine 2002; Barrois and Tokovinine 2005). The central ballcourt marker at Copan (Fig. 27a) depicts "18-Rabbit" and an underworld lord on either side of a large ball marked with the glyphs K'an Tuun, suggested previously to relate chronologically with Na Ho Chan and the underworld journey of the Maize Lord. A fascinating way character (Fig. 27b) known as sitz' winik, or glutton, carries the Yax Chan, or "First Sky," title in K927, perhaps indicating that the Classic Maya considered humans in the antediluvian creation to have erred through excessive behavior, leading to their own demise (a similar theme might be sensed in the Popol Vuh narrative). A number of death gods and way characters carry the B'a Tuun, or "First/Head Stone," title in codex-style ceramics. As also indicated by U Way Na Ho Chan titles and the Yax Chan title of the sitz' winik, these characters seem to refer to story-telling traditions of long-ago time and hint at a fascination for ancestral beings who lived in previous creation eras, which the Maya associated with death.

The use of "two-Five" (":I" or "Seven") as a numerical prefix also plays an important role in ballgame-related entities of the Classic period. For example, the "Seven Black-Yellow Place" glyph is clearly related to the ballgame, as seen at Tonina (Fig. 27c) where the ballcourt there is named as a *Wuk Ik' K'an Nal Ux Ahal*, or "Seven Black-Yellow Place, Three Creations/Awakenings/Conquests," ballcourt (Freidel et al. 1993: 372). The deity *Wuk-Tz'ikin-Chapaat-K'inich Ajaw*, or "Seven Eagle Centipede Sun

Lord" is also found in the context of the ballgame (Tokovinine 2002; Barrois and Tokovinine 2005) and is represented in the Temple of the Sun at Palenque as two spears framing the image of the Jaguar God of the Underworld beside a "Seven Black-Yellow Place" glyph (Fig. 17c) (Barb MacLeod personal communication 2011).

Figure 27: Connecting Time Concepts Between Mythologies

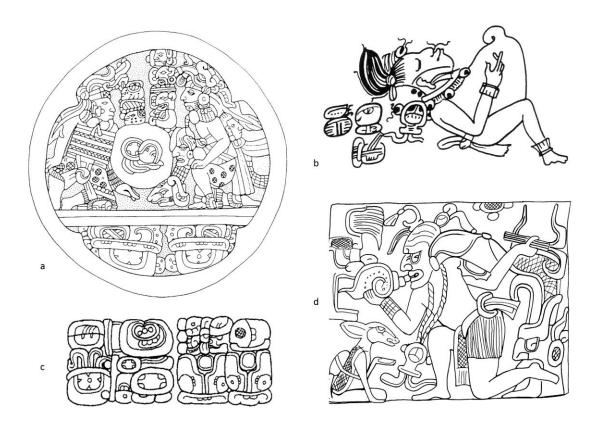


Fig. 27: (a) *K'an Tuun* in Central Ballcourt Marker, Copan, (b) *Sitz' Winic Yax Chan*, a glutton "First Sky" *way* character, (c) Tonina ballcourt name incorporating "Seven Black-Yellow Place" glyph, (d) Depiction of Seven-Sip.

According to Barrois and Tokovinine (2005), the divine patron of the ballgame is a deer- and hunting-related god known as *Wukte' Ajaw*, also known as Seven-Sip in the Postclassic period (Hellmuth 1991). This legendary, forest-burning hunter (Fig. 27d) (Stone and Zender 2011: 66), who was perhaps believed to have lived and died "a long, long time ago" plays an important but largely unknown chapter of ancient Maya mythology and seems to be part of this ancient, "Seven-set" of mythic entities.

These ballgame-related, "Seven"-prefixed names of the Classic period may be precursors to important deities such as Seven Hunahpu, Seven Death, and Seven Macaw which form part of the adventure and underworld narrative in the Popol Vuh. Although the characters may have changed, a convention which employs the "two-Five" (":I" or "Seven") numeral—keyed to the legendary acts of ancient gods and the underworld journey and rebirth of the Maize Lord—seems to have survived across thousand years of history, passed along through oral and written traditions. The origins of this organization of time, as well as the metaphors "stone" and "sky" for its representation, seem to come from Mesoamerica's more ancient past, as explored at the Olmec site of La Venta in the following chapter.

CHAPTER 4: Preclassic Precursors to the Ordering of Time

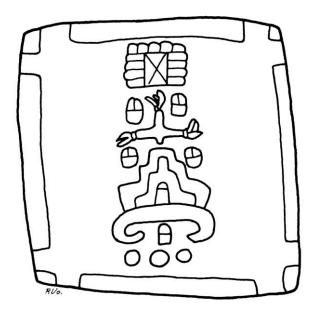
The division of linear time into separate periods, stretching far into the archaic past, seen in its purest form at Palenque and Yaxchilan yet reflected in ideology through much of the Classic Maya world, has potential implications for the study of Formative period art and archaeology. Key elements of the Classic period belief system appear to have been established much earlier in time than is generally assumed, though not necessarily any earlier than the Judeo-Christian tradition or the belief systems of other ancient world civilizations. In the following chapter, this same organization of the deeper past, important to beliefs of origin in later periods, is suggested to have expression over 1,500 years earlier among the Olmec.

The Mesoamerican interest in dividing time into great units according to the actions of important deities has rarely been approached as being relevant to interpretations of Olmec art due to a lack of writing and the familiar Long Count. Yet the absence of written records in the Preclassic period may, in some respects, be advantageous for the study of beliefs about the organization of time, and of origin. If the Classic Maya inherited their understanding of the deeper past from Preclassic sources, earlier expressions of this cosmology might be found in symbolic forms which do not require knowledge of spoken language in order to reconstruct meaning, a major hindrance to the understanding of Classic period mythology, such as 4 Ajaw 8 Kumk'u texts, which seem to contain examples of opaque language and ambiguous metaphors. It is possible to hypothesize that Preclassic cultures such as the Olmec—who were

chronologically closer in time to the important era dates, may have been aware of this ordering of time and contributed to the formalization of this belief system which became the basis of later Classic period understandings of the deeper past.

Significant elements of the Classic Maya belief system have been identified by scholars to already exist in the Preclassic period, in some cases over a thousand years prior to the Classic period. For example, the portrayal of ballplayers has been described as playing "a prominent role in Olmec iconography" (Rice 2007: 19). The site of La Venta is thought to contain the earliest depiction in monumental architecture of the plumed serpent (Drucker 1959: 198; Plate 49), a being which is important to the origins of the Fifth age in Central Mexico (López Portillo 1982: 53). Chaak, one of the earliest continually-worshipped deities in Mesoamerica, exists at Preclassic Izapa (Coe 1962:99; Norman 1976:87-92), while *K'awiil* has been identified at Preclassic Tak'alik Abaj (Miller and Taube 1993: 59; 131). Elements of the mythic narrative of the Maize Lord's death and resurrection have been proposed to exist very early, such as a possible canoe journey in Late Preclassic Izapan art (Taube 1996: 62) and portrayal atop a turtle in Olmec art (Taube 1996: 69; Saturno et al. 2010: 80). As mentioned, "three stones" motifs have been identified in the Humboldt Celt, as well as in a carved object known as the "Dallas Plaque" from Ahuelican, Guerrero (Fig. 28) (Reilly 1994; Freidel in Coe et al. 1995: 7; Schele in Coe et al. 1995: 108; Headrick 2007: 111).

Figure 28: "The Dallas Plaque" from Ahuelican, Guerrero



A clear distinction between the Olmec and Maya can be difficult to make due to the appearance of "Olmec" influence in traditionally "Maya" settings. For example, the Relief of Tenosique, found in the vicinity of the Classic Maya sites Palenque and Yaxchilan, has been interpreted as evidence of earlier, permanent settlement by the Olmec in that region (Garcia Moll 1979). Excavation of the Classic Maya site of Ceibal reveal a cruciform cache dating to ca. 830-780 B.C.E. resembling those found at the Olmec site of La Venta (Rice 2007: 68). Precious pieces created in earlier Preclassic times are also known to have become "heirloom" objects and reused by later groups, such as a plaque from the Dumbarton Oaks collection which contains "Olmec" iconography as well as early Maya writing (see Taube 2004: 179). Stross (1982, 1985) and Justeson et

al. (1985) propose the interchange of ideology between Classic Maya and Mixe-Zoquean-speaking groups in the Gulf Coast, an area considered to be the Olmec heartland (Campbell and Kaufman 1976). Interestingly, elements of the Palenque calendar have been seen as an "intrusive foreign idea" from the Gulf Coast or Oaxaca region (Rice 2004: 74).

To attempt to reconstruct a time ideology among the Olmec and more so, to pinpoint 1000 B.C.E. as an important change in cosmology reflected in monumental construction projects at La Venta, is admittedly problematic due to the fact that many Olmec pieces cannot be securely dated and often lack provenience. Even at a well-excavated site like La Venta, no reliable chronology exists for the monuments constructed during its over eight-hundred year existence (Gonzalez Lauck 1996: 73). Traditionally, Olmec pieces have been categorized stylistically into broad chronological periods such as the Early Formative and Middle Formative, with the year 900 B.C.E. as a dividing line marking a perceived separation between San Lorenzo and La Venta phases.

Nevertheless, some evidence suggests that an important change in time ideology may have been sparked by a natural event which occurred at about 1000 B.C.E., reflected over 1500 years later as the birth of "Bloodletter of the Snake" in the Palenque mythology, and as the *Wakmihnal* in the Yaxchilan mythology of the ballgame. For example, it has been more recently suggested that 1000 B.C.E. correlates with a demographic collapse at San Lorenzo which left it a large village while decimating the local population (Symonds et al. 2002). A possible change in cosmology has been observed through the analysis of Soconusco ceramic designs:

"In the earlier period, subjects were drawn from the animals with which the villagers came into contact in their daily lives. After 1000 B.C., subjects were supernatural entities imagined as fantastic creatures....there was a shift in focus from the ordinary to the extraordinary....Something important happened during the late Early Formative to draw (cosmological ideas) to the foreground" (Lesure 2006: 208, 212).

Material evidence such as this hints at the possibility that political and economic forces, for the moment at least, were secondary in importance to the manifestations of deities which ushered in a change in era-based time ideology at about 1000 B.C.E. What exactly occurred at this juncture, which awed earlier humans and reaffirmed a connection with beliefs of the past, might be suggested by associations of the "6-Sky" glyph among the Classic Maya, as summarized in Chapter 2. These include contexts of *Chaak*, *K'awiil*, clouds, and cloud mountains. According to interpretations presented as to the chronology of *Ux Ahal*, this "creation" event was also associated with the underworld. The importance of 1000 B.C.E. to a possible change in time ideology, coupled with the decline of San Lorenzo and the increased prominence of La Venta at this time, raises the possibility that important clues relating to a change in time ideology may be found at this latter Olmec site.

LA VENTA AND THE ORGANIZATION OF THE DEEPER PAST

While material evidence from the Early and Middle Preclassic periods is voluminous and widespread, this chapter focuses on La Venta and its immediate surrounds in order to minimize problems such as regional variation and the insecure dating of monuments. Estimates for Olmec occupation at La Venta vary, but it is thought to have been established by 1200 B.C.E. or 1100 B.C.E. according to radiocarbon dating, while occupation of the surrounding area begins by 1750 B.C.E. (Heizer 1971: 52; Raab, Boxt, and Bradford 1995; Gonzalez Lauck 1996: 73). The following features at La Venta are highlighted: (1) abstract serpentine mosaic pavements discovered beneath Complex A, (2) a celt and figurine arrangement known as Offering 4, (3) the earliest known image of the plumed serpent known as Monument 19, and (4) a pair of thrones possibly depicting caves of emergence known as Altars 4 and 5. These interpretations have potential implications for the symbolism contained within other monuments at La Venta, such as the representation of Maize Lords.

MASSIVE OFFERINGS: MOSAIC PAVEMENTS 1-3

Beneath La Venta Complex A, three abstract mosaics (out of a total of six massive offerings) were discovered during excavations in the 1950's which consist of huge quantities of serpentine blocks set with clay (Fig. 29a) (Gonzalez Lauck 1996: 78). Two of these offerings, known as Mosaic Pavements 2 and 3, are paired and identical in

form and located in the north court. A third abstract design known as Mosaic Pavement 1 is located in the center of the south court. These three mosaics are similar in that the square shape contains four signs at their corners known as the double-merlon motif. As identified by Reilly, the double-merlon may represent a sunken plaza, a ballcourt, and/or a cleft motif (Reilly 1991: 157). Each mosaic is also "capped" on its north side by what Taube identifies as a "sky" sign (Taube 2004: 112), although the meaning of this sign is not generally agreed upon.

Figure 29: La Venta Complex A Mosaic Pavements

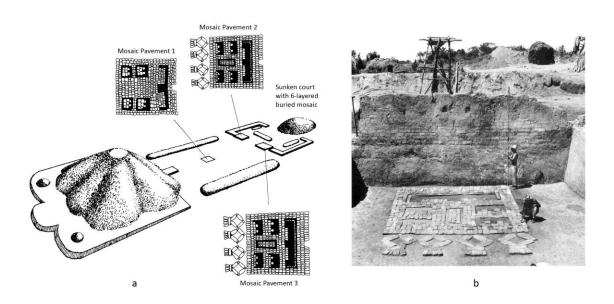


Fig. 29: (a) Diagram of La Venta buried mosaics, (b) Photo of La Venta buried mosaic showing relative size and central "bar" shape.

Important differences are observable between Mosaic Pavements 2 and 3 on the north side and Mosaic Pavement 1 on the south side. The north side mosaics have decorative tassels interpreted to relate to water imagery (Reilly 1989), whereas the south side mosaic does not. The north pair also contains a central rectangular bar in the middle of its four double-merlon signs, whereas the south mosaic does not contain the central bar. It has also been noted that the south mosaic has experienced significant wear and erosion, whereas the north pair evidently was constructed and then buried without experiencing wear (Reilly 1989; Freidel et al. 1993: 431), one of the great mysteries of La Venta.

The double-merlon and central "bar," topped by a possible "sky" symbol, found in the pair of north mosaics (Fig. 29b) is common in Olmec art (Taube 2004: 112). This design has been likened to the familiar four-dots-and-bar motif interpreted to be a representation of the four quarters of the cosmos and the central *axis mundi* (Benson 1971: 28-29; Marcus 1989: 172-173; Reilly 1989; Taube 1996). Many variations of the motif exist, with the "four quarters" sometimes represented as cleft celts, crescent-shapes, or dots (Fig. 30a, 30b, 30c). At the same time, the inner "bar" may substitute as the Maize Lord (Fig. 30d) (Reilly 1989; Fields 1991; Stross 1992; Taube 1996).

Figure 30: Olmec Variants Depicting Possible Fusion of Time and Space

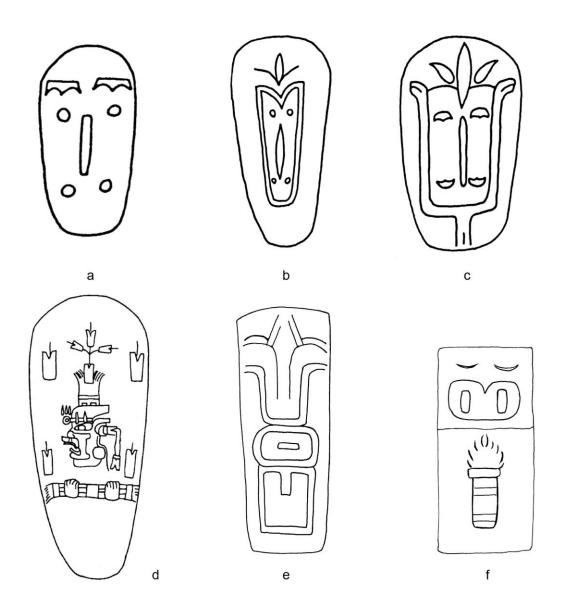


Fig. 30: (a) Variant of four-dots-and-bar motif, (b) Variant of four-dots-and-bar motif, (c) Variant of four-dots-and-bar with Maize Lord substituting for "bar," Río Pesquero celt, (d) Variant of four-dots-and-bar, (e) bar on corn element, (f) "II" motif and possible corn symbol.

In addition to representing directional and spatial symbolism, a Mesoamerican propensity for fusing both time and space may be represented through the design of these mosaics. The northern pair incorporates the four-double-merlons-and-bar motif while the southern, well-weathered mosaic lacks the central bar (Fig. 29a). While it is unclear whether the "bar" shapes found within the paired north mosaics represent the number "Five," the absence of a central bar in the southern mosaic might suggest that its four double-merlons represent the number "Four." This fusion of time and space may perhaps be comparable to the notion of four directional trees at "creation" in later Maya mythology, suggested in this thesis to represent the start of the Fourth era known as *Chan te' Chan*, or "4-Sky."

The possibility exists that if a change in time cosmology occurred at about 1000 B.C.E.—as reflected in the later Palenque and Yaxchilan mythologies—it might be evidenced by these massive mosaic construction and burial projects. The well-worn southern mosaic, lacking a central "bar" shape, may suggest use prior to the circa 1000 B.C.E. era date. After the 1000 B.C.E. era date, in response to a natural phenomenon witnessed by the Olmec—an event associated with *Chaak* and other deities according to later contexts of the "6-Sky" glyph—a change in time ideology may have inspired the symbolic termination of the "two-Five" or "double-Five," time period which had existed, according to rare Classic Maya inscriptions, since the 24th century B.C.E. Construction and burial of Complex A's north mosaic pair, which each contains a rectangular "bar" shape in the center—suggestive of the numeral "Five"—may signify the symbolic termination of this age of time. A separate, massive deposit discovered just to the north

of these mosaics consisting of six horizontal layers of serpentine blocks (Gonzalez Lauck 1996: 78) may represent the new "sixness" of time entered into at about 1000 B.C.E., later associated with the *Wakmihnal* among the Maya, to which the chronology of the ballgame became oriented. Taken together, these four massive deposits at La Venta would seem to embody the three stones of creation, consisting of "4-Sky," the two "5-Skies," and "6-Sky" according to stone-setting ideology of the Classic Maya.

According to this interpretation of the symbolism of these buried mosaics and similar Olmec iconography, early Mesoamericans show an interest in fusing time and space through artistic motifs such as the four-dots-and-bar motif. For example, the ability of the Maize Lord to substitute for the central "bar" in the four-dots-and-bar design may emphasize not only the spatial centrality of this deity, but also the temporal order which the Maize Lord—as the "ruler" of the Fifth era, an age of maize—represents. Perhaps representations of four-dots-and-bar motif variants on corn elements (Fig. 30c), lone "bars" depicted on corn motifs (Fig. 30d), and the double-bar motif occasionally observed in cleft elements associated with corn (Fig. 30e), represent similar fusions of time and space that early Mesoamerican peoples were fond of.

THE CELTS AND FIGURINES OF OFFERING 4

An important discovery at La Venta known as Offering 4 may represent an early expression of time ideology based on the metaphor of "stone." This ritual deposit, discovered near Complex A, consists of sixteen figurines and six celts (Fig. 31a, 31b).

Drucker (1959) interprets this scene to have both primary and secondary actors, slightly different from his original interpretation which stated that the unique, reddish figurine (#7) made of granite and leaning against one of the central celts was the primary focus of the scene (Drucker 1959: 155). After "(m)ore leisurely and careful study," he identifies the importance of a file of four figurines facing a fifth figurine (#22), who is the "most spectactular....and also the most haughty and commanding....who appears to be the real center of the action" (Drucker: 1959: 155-156). This makes a total of six figurines of primary importance in the scene, with the other figures looking on (Drucker 1959: 153).

The description, drawings, and photographs by the original excavators of Offering 4 show a slight but important difference in the arrangement of these sixteen figurines and six celts compared to the reconstruction of this archaeological find in the Anthropology Museum of Mexico City which appears in later color photographs. According to Drucker, Celt #1 was originally, directly to the side of the imposing figurine (#22), whereas the Mexico City reconstruction places one of two undecorated celts beside this figurine (apparently done for aesthetic purposes, such as color balance). Additionally, the Mexico City scene puts Celt #1 back together again, whereas this celt was actually found broken in-situ (Drucker 1959: 153; Plate 32). This is a potentially important clue to determining the meaning of the scene, particularly given the fact that this broken celt (#1) appears to have what might be considered writing on it: a "two-Five," or "Seven" motif (Fig. 31c). When "doubled" through mirror imaging, this design has been proposed to make the four-dots-and-bar motif (Reilly 1994; Schele 1995: 107).

Figure 31: La Venta Offering 4



Fig. 31: (a) Offering 4 figurine and celt assemblage, (b) Photo of Offering 4 figurine and celt assemblage, (c) Four of six celts from Offering 4 with writing.

The breaking of Celt 1 may therefore be deliberate, representing a metaphorical termination of the "fiveness" of time represented by the celt and the menacing Figurine #22 who stands beside it. Perhaps it is the arrival of the reddish, granite figurine, whose quality contrasts considerably with the other figurines and who is the only one leaning against one of the six celts, which represents this change in ideology and a "new order" of time.

CROSSED-BANDS IN MONUMENTAL ARCHITECTURE AT LA VENTA

Two important examples of ritual deposits at La Venta, mosaic pavements and celt-figurine offerings, have been suggested to represent the termination of a previous age of time (the "two-Five" or "double-Five") and the entering into of a sixth stone of time based on circa 1000 B.C.E. as an era date. In the following section, a correspondence between to the numbered sky glyphs important to the ordering of time in the Classic period, such as *Na Ho Chan* and "6-Sky," and an important Preclassic symbol at La Venta—the crossed-bands ("X"), or St. Andrew's cross—is explored.

The crossed-bands motif is one of the earliest and most recurrent symbols in ancient Mesoamerican art. Numerous scholars have made a case for the celestial nature of crossed-bands in the Preclassic period. Coe suggests that in Olmec and later Classic Maya iconography, the crossed-bands simultaneously refer to "sky" and "serpent" (Coe 1968: 114), these words being homophones or near-homophones in Mayan and Mixe-Zoquean languages (Freidel and Schele 1988: 73; Taube 1995: 87). Reilly identifies the

crossed-bands as a celestial symbol "with strong sky realm associations" (Reilly 1995: 36), and Grove links crossed-bands eyes to sky serpent supernaturals in Olmec art (Grove 2006: 281). Taube considers crossed-bands to be a "well known Olmec sky sign" (Taube 2004: 114), while Rice notes that the crossed-bands motif likely reflects a propensity of Preclassic Isthmian cultures for observing the sun's movement between the solstices (Rice 2007: 163), also making it a "sky" symbol.

This final observation by Prudence Rice, that the crossed-bands motif in Formative period art may be based on the solstice positions, is particularly interesting not only because the seasonal sunrise and sunset positions define the solar year, but also because they embody the basic concept of "time" (beyond than the brief, 24-hour period). Seasonal effects of the sun on temperature, weather, migration, and plant growth must have been of paramount importance to early Mesoamerican peoples. Aveni theorizes the existence of rudimentary sighting devices (Fig. 32a) that could have been utilized to give extraordinarily accurate measurements of seasonal aspects of the sun, facilitating an early understanding of natural solar rhythms from which calendars were eventually developed (Aveni 2001: 65). This reliance on east-west horizon astronomy, and its connection to daily as well as yearly cycles, seems to have been significant to the formation of a common cosmology among Mesoamerican peoples.

A Mesoamerican cosmology based on east-west quadripartite directionality as defined by the seasons is suggested through ethnographic research, though the connection of this ideology to the crossed-bands ("X"), or St. Andrew's cross, has been made difficult due to confusion with the Maltese cross ("+") and the "cardinal points."

Girard's work among the Chorti affirms that cosmological orientation was based on seasonal movements of the sun: "Investigations made by experienced Mayanists...fully confirm that the orientation of the four directions of the cosmos is toward the solstices and not to the four cardinal points" (Girard 1995: 67). Evon Vogt concludes from his work among the Tzotzil that

Maya spatial orientation to the four corners of their universe is not based upon our cardinal directions of N, S, E, W, but either upon intercardinal points, or upon two directions in the east and two directions in the west (i.e., sunrise at winter solstice, sunrise at summer solstice, sunset at winter solstice, and sunset at summer solstice). On this point it has been more commonly assumed by Maya specialists that the four directions were in fact our cardinal directions (Vogt 1964: 390).

When Oliver La Farge visited several Mam-Mayan communities including

Jacaltenango in 1927, he discovered a similar cosmology that indicates an interest in the

"four corners" and the "Four Corner Posts of the World" (La Farge and Byers 1931: 159,

185). The importance of "four corners" have also been documented among the

contemporary Tzotzil, Lacandon, and K'iché, which are said to be intercardinal directions

associated with the solstice positions (Kohler 1980: 583-596). Paxton concludes that the

cardinal points orientation of the European tradition is an error which began the first time

Landa's "las cuatro partes del mundo" was translated into "cardinal points" in English,

and does not apply to the Yucatec Maya (Paxton 2001: 15-16). Aveni identifies the St.

Andrew's cross ("X") as signifying "the four houses of the sun in the sky, two in the east and two in the west. These are inter-cardinal points that mark the extremes to which the sun migrates along the horizon during the course of the year" (Aveni 2001: 151). See Figure 32b for a diagram of the crossed-bands as defined by the solstice positions.

The East-West orientation of space in the Maya region is supported linguistically by the absence of "north" and "south" in many Mayan dictionaries; instead, they appear to have referred to the north and south as "sides" that form the "left" and "right" hand sides of the sun's path (Nora England personal communication 2010; Milbrath 1999: 19). Watanabe's linguistic investigation of the Mam of Western Guatemala supports a directionality based on "sides," also well-represented by the crossed-bands symbol:

The 'moments' of east and west... become manifested spatially as sides of the horizon bounded by the northern and southern solstitial extremes. References to the northern and southern sides of the horizon remain semantically unelaborated in Mam because they fall outside the ecliptic. By definition they represent those arcs of the horizon where the sun never rises or sets (Watanebe 1983: 718).

Out of necessity for survival as well as intellectual curiosity, early Mesoamericans likely gained intimate knowledge of how space and time operated together as an endless cycle of solar motion that was inherently quadripartite and expressed as directions on the horizontal plane (Hunt 1977: 248). The crossed-bands symbol seems to depict the sky through east-west motion of the sun as well as embody the basic concept of time based on

observable north-south sunrise and sunset extremes at the solstices. It seems likely that a Mesoamerican interest in solstice positions did not emerge during the Classic or in later, more familiar periods, but had already existed among earlier Mesoamericans. Without the presence of widespread, standardized calendars, horizon sight-line observation may have been even more critical to survival and the ability to unite large groups of people on particular days at particular places.

This intense interest in an East-West orientation of space as defined by the sun, along with millennia of careful sight-line horizon observation, makes it possible that ancient Mesoamericans discovered the slow shift in the angle of obliquity of the ecliptic, that is, the slow narrowing of the solstice positions. Although this slow narrowing is gradual, amounting to only 40 arc-seconds per century, or ½° in the past 4,000 years, Aveni considers this a "sizable shift" (Aveni 2001: 103). If we are to entertain the possibility that humans have been living on the American continent for well over 10,000 years, and that *homo sapiens* around the globe have had the same intelligence for about the past 60,000 years (James Denbow personal communication 2009), this narrowing of the solstice positions, cumulatively amounting to multiple solar diameters on the horizon, may well have been discovered, appreciated, and utilized by observant, sky-watching peoples.

Figure 32: Crossed-Bands ("X") As an Olmec "Sky" and "Time" Symbol

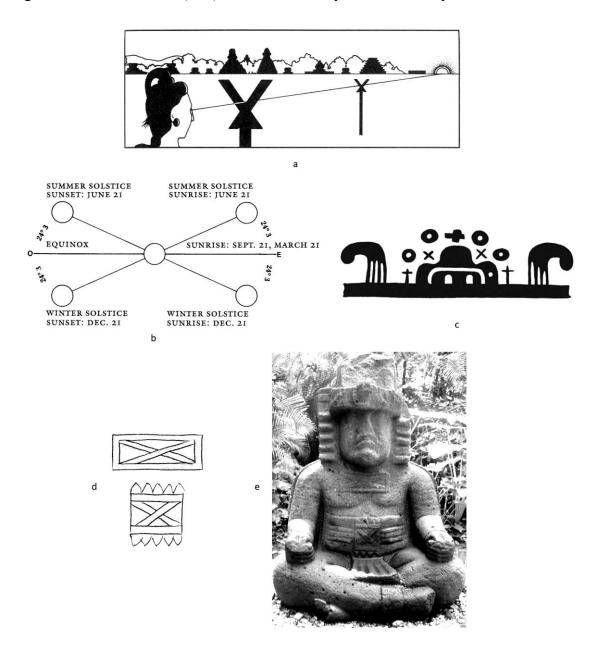


Fig. 32: (a) Horizon sight-line astronomy instruments, (b) Crossed-bands as defined by solstice positions, (c) Painted motif from a Viejón vessel, (d) Example of "stacked" crossed-bands motifs, (e) La Venta Monument 77.

The potential discovery of gradually narrowing solstice positions may have made the crossed-bands ("X") a logical choice to represent both "sky" as well as the basic notion of "time" among Preclassic peoples long before the invention of writing. The crossed-bands shape could easily be manipulated in order to conceptually represent both the present as well as the past. For example, by turning the crossed-bands more vertically, a conceptually more ancient "sky/time" is produced based on wider solstice positions; by "squeezing" the crossed-bands in the horizontal direction, a more youthful depiction of "sky/time" is formed. This convention may have been particularly useful for marking change of era and for representing separate ages of time before writing.

The effect of narrowing solstice positions on the horizon is demonstrated, conceptually, through a Preclassic ceramic from the site of Viejón (Fig. 32c), a site which is believed to date between 1000 B.C.E. and 500 B.C.E. (Bernal 1969: 150). Whether the artist designed this particular motif to represent important time concepts is unclear. Nevertheless, if the four circular motifs represent the rising or setting sun, then the paired circles above the Maltese crosses ("+") would conceptually represent the solstice positions of a more ancient age than the narrower, paired circular motifs above the crossed-bands, according to this basic astronomical principle.

Any manipulation of the crossed-bands shape for the purpose of representing time concepts is difficult to ascertain in contexts where only one crossed-bands motif occurs. However, numerous examples of stacking of crossed-bands exist in Preclassic art which may depict more "youthful" crossed-bands on top of more "ancient" ones (Fig. 32d), of

which La Venta Monument 77 (Fig. 32e) is an example. These Preclassic crossed-bands "stacks" are known to exist in two's as well as three's.

In the following sections and in Chapter 5, the crossed-bands symbol is interpreted to represent important time concepts in Olmec art which are precursors to, and are the direct semantic equivalent of, the Classic Maya numbered skies used to organize the three stones of creation as separate time periods.

MONUMENT 19

La Venta Monument 19 is widely considered to be the earliest known representation of the plumed or feathered serpent in Mesoamerican art. Considered a "divinity of considerable significance in Olmec civilization...(and) the ancestor of the plumed serpent who appears through Mesoamerican history in different guises" (Joralemon 1996: 58), Monument 19 may contain unrecognized temporal symbolism through the use of paired crossed-bands ("X X") above the rattlesnake (Fig. 33a). These identical, double crossed-bands may easily be interpreted as a "primitive" sky band; however, the use of crossed-bands at La Venta seems to have served a more sophisticated purpose that relates the plumed serpent to mythic origins and "creation."

The day 9-Wind at Palenque was first suggested to refer to the plumed serpent by Kelley (1965), though comparisons between Classic Maya inscriptions and Olmec iconography are difficult. A Fourth-to-Fifth era change is attributed to the plumed serpent according to Central Mexican mythology (López Portillo 1982: 53). According

to Mixtec mythology in the Vienna Codex, the birth of the deity Nine-Wind on the day 5-Flint in the year 5-Flint, initiates "a new era of the world" (Florescano 1999: 25).

Additionally, it has been suggested herein that the setting (i.e., "termination") of the first stone of creation (*Chan te' Chan*, or "4- Sky") corresponds to the foundation of the Snake throne-stone according to the Classic Maya three stones of creation narrative. Palenque's paired 9-Wind dates in the 24th century B.C.E. precede the creation of La Venta Monument 19 by some 1,500 years, ample time for the notion of the plumed or feathered serpent to have been deeply mythologized within the Mesoamerican consciousness by Olmec times (Kubler 1967: 12), though this suggestion is, admittedly, difficult to substantiate with material evidence.

If a relationship between La Venta Monument 19's feathered serpent and Palenque 9-Wind mythology were to be argued, it is through the symbolism of these identical, paired crossed-bands ("X X") above the scene as a marker for the double erachange which brought the Fifth era and an age of corn. Specifically, the first of the paired crossed-bands may be the semantic equivalent of *Na Ho Chan* ("First 5-Sky"), also the first *Ahal*, while the second crossed-bands may represent the "Second 5-Sky," or the second *Ahal*. The second crossed-bands of this pair, according to 24th century Palenque mythology, would correspond to the accession to rulership of the Maize Lord at the start of the Fifth era, a possible culmination of the myth of emergence. Similar use of paired, double crossed-bands to mark the origins of the Fifth era may be found in another important context at La Venta.

Figure 33: Crossed-Bands Symbolism in La Venta Monuments



Fig. 33: (a) La Venta Monument 19, (b) La Venta Altar 5, frontal view, (c) La Venta Altar 4, frontal view.

ALTARS 4 AND 5

The use of crossed-bands to mark origin and "creation," as well as for the organization of time at La Venta may be important to the meaning of a pair of monuments known as Altars 4 and 5. First brought to attention by Blom (1926/27: 85), these possible thrones were discovered as a pair, with Altar 5 (Fig 33b) to the immediate left (west) of Altar 4 (Fig. 33c). Each contains a central cave or niche from which a human seems to emerge, interpreted as the depiction of an origin myth (de la Fuente 1981: 90-91). Altar 5, also known as the Altar of the Quintuplets, depicts four adult figures, two on each side, each holding a smaller, non-human infant (Figs. 34a, 34b), while a fifth figure emerges from the central niche with what appears to be a human baby in its arms (Fig. 34c) (González Lauck 2010: 143).

The headdress of the figure emerging from the cave (Fig. 34d, 34e) contains paired crossed-bands on either side of a central mask—these are the same double crossed-bands which are depicted in association with Monument 19's portrayal of the feathered serpent. Using the logic of Olmec crossed-bands presented here, Altar 5 may therefore depict an important Mesoamerican myth related to the origin of modern humans from a cave, specifically the "two-Five" (or "Seven") cave of emergence into the Fifth and modern era, an age of maize. According to this interpretation, the four creatures on the sides of Altar 5 might represent failed inhabitants of previous ages, as communicated in the significantly later, mostly oral traditions of Central Mexico and the Maya area.

Figure 34: La Venta Altar 5



Fig. 34: (a) La Venta Altar 5, west side, (b) La Venta Altar 5, east side, (c) Altar 5, detail of baby, (d) Altar 5 headdress, west side, (e) Altar 5 headdress, east side.

Altar 4, to the right (east) of Altar 5, has been interpreted as a scene of origin, but this throne seems to bring us out of the more remote past and into the post-1000 B.C.E., present order of time. Emerging from this cave is a figure which dons the headdress of double crossed-bands, apparently related to Altar 5's earlier scene of emergence. But the most prominent crossed-bands in this scene is found above the cave's entrance (Fig. 35a) in the mouth of the supernatural being—these crossed-bands clearly are more horizontal in shape and, conceptually, a more youthful representation of "sky" and "time." On the west side of Altar 4, an individual (Fig. 35b) is depicted as though connected to the cave entrance by a rope. This rope may not indicate that the individual (Fig. 35c) is a captive, but rather, that he is connected symbolically, as through origin (Julia Guernsey personal communication 2011).

When seen as a pair, Altar 5 and Altar 4 might be interpreted as an Olmec representation of ancient Mesoamerica's "core," era-based time chronology, incorporating not only beliefs about the deepest past in Altar 5, but also the here-and-now in Altar 4, representing a new "sixness" of time and a more youthful "sky" that seems to have been important to La Venta site identity, conservatively maintained and eventually expressed in its purest form at the site of Palenque some 1,500 years later.

Figure 35: La Venta Altar 4

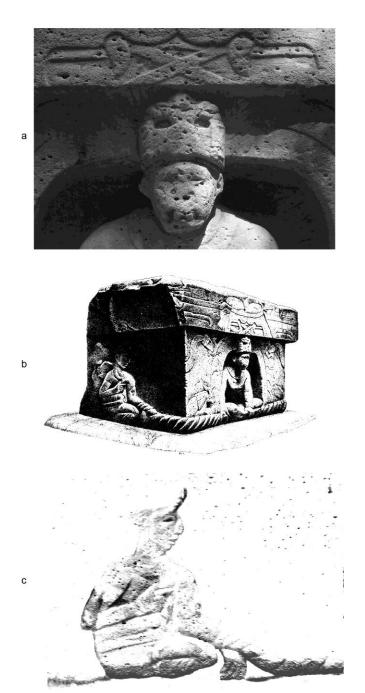


Fig. 35: (a) Altar 4 crossed-bands, close-up, (b) Altar 4, side-angle, (c) Altar 4, west side, view of individual and rope.

This chapter has theorized that era-related time concepts were very important in Mesoamerica during the Formative period and were expressed through basic conventions at the Olmec site of La Venta such as bar-and-dot numerology, the metaphors "stone" and "sky," and symbolic caves of emergence. Three crossed-bands have been suggested to mark change of era—paired, double crossed-bands referring to the legendary "two-Five" start of the Fifth era, and a more youthful crossed-bands representing a "sixness" of time resulting from a change in time ideology at about 1000 B.C.E. These three crossed-bands would be direct correlates to the "three axings" in Classic Maya *Ux Ahal* mythology to which the ballgame was conceptually related. The importance of time-related symbolism of crossed-bands in the representation of deities in Preclassic art, such as the Maize Lord as the possible bearer of era-based time symbolism, is a potentially rich subject which has been touched upon only very briefly.

No mention has yet been made of another important crossed-bands symbol, that which marks the start of the Fourth era—the equivalent of *Chan te' Chan*, or "4-Sky," of Classic Maya mythology—of which the Humboldt Celt may provide a prime example. A discussion of this particular crossed-bands and a proposed relation to the three stones of creation is provided in the final, concluding chapter which follows.

CHAPTER 5: Revisiting the Humboldt Celt and Quirigua Stela C

THE HUMBOLDT CELT, A RECONSIDERATION

When the Humboldt Celt (Fig. 1a) was first brought to the European continent around 1803 by Alexander von Humboldt, this may have signaled the beginning of serious interest in Olmec art (Benson 1996: 133). Dating to circa 900 B.C.E., this celt of unknown origin has long been interpreted to contain some of the earliest forms of writing in Mesoamerica (Coe 1965). Thought to depict a scattering ritual (Justeson 1986: Fig. 3e; Graham 1992: 192), the potential greater significance of the Humboldt Celt came to light in the early 1990's when it was interpreted as a depiction of the three stones of creation important to Classic Maya 4 Ajaw 8 Kumk'u texts (Reilly 1994; Freidel in Coe et al. 1995: 7; Schele in Coe et al. 1995: 108; Headrick 2007: 11). A host of intriguing details about this celt, described in the following pages, may provide support for the claim that the Humboldt Celt's triadic, circular motifs (Fig. 36a) indeed, represent the same three stones of creation referred to in Classic Maya mythology.

A Preclassic artist who wished to portray, through basic symbols, the three stones of creation—proposed to be the equivalent of "4-Sky," the two "5-Skies," and "6-Sky" in later Classic period mythology—would seemingly need to overcome several challenges. For example, the "doubled" nature of the second stone of creation would need to somehow be represented. The greater antiquity of the first stone of creation as well as the "sixness" of the more youthful, third stone of creation would also need to be

communicated. If the artist wished to create a celt which represented the three periods of time before the Fourth era (known as the "Yax Three Stones/Hearth" according to Classic Maya inscriptions), (s)he would need to invent a way to express these first three units of time

The artist of the Humboldt Celt seems to have overcome each of these challenges through creative means which foreshadow patterns observed elsewhere in Mesoamerica, as described in this text. By repeating an identical "three stones" motif *twice*, and by incising symbols (the meanings of which the reader might ponder) which touch the uppermost "stone," it seems likely that this uppermost "stone" communicates the "doubled" nature of the second stone of creation. Therefore, according to this interpretation, the lower-left and lower-right circular motifs would be expected to correspond to the first and third stones of creation.

The identity of the lower-right circle as the third stone of creation is revealed through a clever detail that may easily be interpreted as an error by the artist—the six-fingered hand which reaches out and touches this "stone" (Fig. 36b). Illustrations of the Humboldt Celt tend to correct for this "error" by depicting the hand with five fingers, overlooking the importance of the sixth finger to the "sixness" of time represented by the third stone of creation, which at one time, was so important to Mesoamerican time ideology. The Humboldt Celt's lower-left "stone," by this reasoning, must represent the first stone of creation, the Fourth era of mytho-historical time.

Figure 36: The Humboldt Celt and the Organization of Time

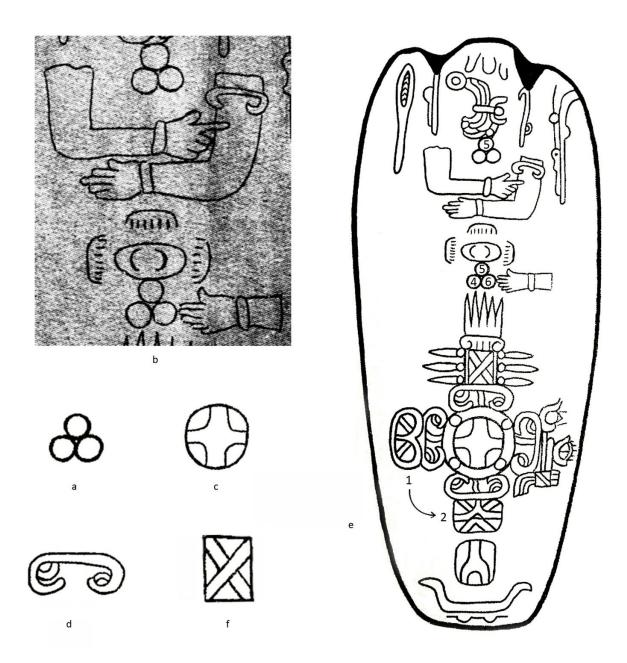


Fig. 36: (a) "Three Stones" motif, (b) Six-fingered hand, from original photograph, (c) Central *K'an* cross, (d) Basal "earth" band, (e) Proposed reading order for Humboldt Celt, (f) Vertically-oriented crossed-bands.

Below the three stones of creation motifs, a four-sided figure around a central *K'an* cross (Fig. 36c) also may have temporal significance. Specifically, the symbols above four basal "earth" signs (Fig. 36d) (Quirarte 1974; Norman 1976; Reilly 1994) might be interpreted to have a sequential reading order which begins left of the *K'an* cross and continues in a counter-clockwise manner (Fig. 36e) to the prominent crossed-bands in the fourth position (Fig. 36f). The counter-clockwise directional flow of time is typical of later Mesoamerican depictions, such as 260-day calendars in the Postclassic codices, the Aztec calendar stone, and the yearbearer cycle expressed through directional symbolism observed by Landa (Tozzer 1941: 138-149). Importantly, this crossed-bands motif is vertically-oriented and, ideologically, represents a more ancient "sky"—it is, therefore, the ideal crossed-bands shape for marking the start of the Fourth era (i.e., the "first sky" of Classic Maya mythology), which seems to correspond to the first stone of creation in the triadic arrangement above.

Intriguingly, the Humboldt Celt's central *K'an* cross (Fig. 36c) may reflect a sense of continuity in time symbolism from the Olmec to the Classic Maya. As first suggested by Coggins (1980: 727), the *K'an* cross may have once carried the meaning of quadripartite "completion." It has been previously suggested in Chapter 3 that many Classic Maya depictions of the death and underworld journey, as well as scenes of emergence and resurrection of the Maize Lord, are associated with *K'an*. The use of *K'an* in these Classic period contexts possibly relates to early use of the *K'an* cross as a quadripartite "completion" symbol representing the termination of the first four eras of mytho-historical time, which according to Mesoamerica's era-based time count, led to the

underworld. Quadripartite symbols, such as the *K'an* cross and similar quatrefoil motifs, have been noted as carrying a strong underworld association, which eventually came to symbolize what may be considered a "passage between realms" (Guernsey 2010: 80) connecting the living and the dead.

Other important observations may be made about the clever Humboldt Celt. Its mere existence suggests that early Mesoamerican peoples likely used symbols and ideograms (as perhaps seen in the Viejón ceramic, Fig. 32d) before the invention of writing to help preserve and communicate concepts about the organization of the deeper past over great expanses of time and many generations. Potential limitations of the design of this cosmogram are recognizable, however, such as the decision to repeat the three stones of creation motif *twice* in order to represent the "doubled" second stone of creation, which is confusing. Another important observation regarding the Humboldt Celt is that *only* the first stone of creation, the Fourth era of mytho-historical time, seems to be marked with a crossed-bands symbol. Classic Maya 4 Ajaw 8 Kumk'u texts which employ the use of a glyph known as the "crossed-batons" (T153) as the "change" verb at the start the Long Count calendar (Figs. 1b, 5a, 5b, 5d, 5e, 6a) possibly may trace their origin to this early, vertically-oriented Olmec crossed-bands symbol, as depicted prominently on the Humboldt Celt.

QUIRIGUA STELA C, A RECONSIDERATION

Over 1,500 years following the crafting of the Humboldt Celt, a Maya lord named *K'ak' Tiliw Chan Yopaat* of the site known today as Quirigua, in the far corner of the Classic Maya world, famously betrayed his overlord, *Waxaklahun U'baah K'awiil* (a.k.a. "18-Rabbit") of Copan, and in doing so, briefly elevated the status of his modest kingdom (Grube and Martin 2008: 215-219). *K'ak' Tiliw*'s most famous monument, Stela C (Fig. 1b), has been interpreted as the most complete rendering of the "*Yax* Three Stones/Hearth," the three stones that were set (and "bound") on 4 Ajaw 8 Kumk'u, anywhere in the Classic Maya world.

This thesis sheds new light on the significance of Quirigua Stela C. It has attempted to demonstrate that an understanding of the deeper Mesoamerican past was not accessible to just any Maya lord or his vassal. As described by Stuart (2011: 84), Quirigua's longtime superior, Copan, was a relative "latecomer on the scene" in the Classic Maya world. The site of Copan seems to emphasize mythology of 4 Ajaw 8 Kumk'u, repeatedly making reference to *Chan te' Chan*, or "4-Sky," in its texts, while the *Chan te' Ajaw* was one of several patron deities (Stuart, Houston, and Robertson 1999: II-59). It even seems to have applied a four-times-four cosmological understanding to the ordering of its over-350-year dynasty, with the sixteenth ruler representing totality and full-circle completion, after whom the dynasty failed to continue (Stuart 2011: 277). Copan therefore seems to be a prime example of a Classic Maya polity that was 4 Ajaw 8 Kumk'u-"dependent" in its chronological understanding of the

deeper past, even though the scribes of "18 Rabbit" are known to have made impressively "deep" calculations on some of his monuments (interestingly, which involve the setting of stones on days 4 Ajaw, 5 Ajaw, and 6 Ajaw on Copan Stela C) (Newsome 2001: 208).

To expect the site of Quirigua to possess a superior understanding of the mythic past than Copan may be too much to ask from this Motagua Valley site. While Quirigua Stela C is extremely valuable in that it presents the three stones of creation in sequential order, mentioning the setting of the first stone of creation by the Paddlers at Na Ho Chan, its depiction of these stones is entirely in terms of 4 Ajaw 8 Kumk'u—no distinction is made by Quirigua artists between the Jaguar, Snake, and Shark/Water stones and the "Yax Three Stones/Hearth." By restating information which pertains to 4 Ajaw 8 Kumk'u—"Edge of Sky," "Yax Three Stones/Hearth Place," and "13 Bak'tuns are completed"—at the end of its text, the chronological sequence of the three stones of creation after 4 Ajaw 8 Kumk'u (whether intentional or not) is lost. In doing so, Quirigua Stela C may demonstrate a tendency of ancient cultures to display mythic events together in the same space when in reality, they existed separately in time (Reese-Taylor and Koontz 2001: 11-12). As such, it is possible that this stela represents an intermediate stage of transition between a representation of important mythic events that is well defined in time (as found at Classic period Palenque) and one that lacks, or very loosely provides, chronological definition (as seen in the Colonial period Popol Vuh).

Like Copan and so many other Classic Maya sites, Quirigua appears to be part of a Classic period tradition that relied on 4 Ajaw 8 Kumk'u, the "start date" of the Long Count, as the only defined "anchor" in the depths of time. It may be for this reason that

three stones of creation narratives like Quirigua Stela C are not widespread in the Classic Maya world. Perhaps the oral traditions at these sites spoke of *Na Ho Chan* and the "6-Sky Lord," but they may never have truly "grasped" the chronology of the setting of the first stone of creation representing the death and underworld journey of the Maize Lord prior to his rebirth, or the origins of *Ux Ahal* to which the legend of the ballgame was traced. Evidence, so far, suggests that this esoteric knowledge was emphasized at, and perhaps guarded by, two sites on the western fringes of the Classic Maya world, Palenque and Yaxchilan, which seem to have had access to the specific details of a time ideology which was already evident at the Olmec site of La Venta over 1,500 years deeper in the Mesoamerican past.

CONCLUSION

This thesis has proposed that Postclassic, colonial, and contemporary

Mesoamerican traditions which understand time to exist as a sequence of multiple eras,
ages, or creations before the present may be traced back to original, more ancient sources
which were defined chronologically by the Long Count calendar. An important
identification has been the interplay of "stone" and "sky" as metaphors within this
system, which has probable Olmec precedents. The meaning of these important
metaphors, and their use in language, appears to have been lost by the end of the Classic
period, making their reconstruction through ethnographic sources deceptively difficult.

Important interpretations have been made regarding the start of the Long Count calendar. The description of 4 Ajaw 8 Kumk'u as the "Yax Three Stones/Hearth Place" (Fig. 6b) according to numerous Classic period texts seems to mark the termination of the "first three stones," or the first three eras of mytho-historical time, rather than the centering of physical or supernatural space. The notion of quadripartite directionality at "creation" is accomplished, rather, through the establishment of Chan te' Chan, or "4-Sky," which corresponds to the first stone of creation and the beginning of the Fourth era. Evidence suggests that time before 4 Ajaw 8 Kumk'u was not incorporated into the chronology of the numbered skies—it is probably for this reason that the phrase ti' Chan, or "Edge of Sky" (Fig. 6b), is part of the standard descriptive language of 4 Ajaw 8 Kumk'u.

The identification of the three stones of creation as being symbolic of time does not necessarily discount manifestations of the three stones in astronomy (e.g., a three stones/hearth constellation), as three-stone hearths in the center of Maya houses, and as triadic features in the physical environment (e.g., volcanoes). These associations seem to be the result of reinterpretations and evolved meanings which have occurred over thousands of years of largely oral traditions. The projection of mythic concepts into the stars and planets surely is not unique to the Maya; importantly, though, these mythic concepts do not *originate* in the stars, but are merely recognized to exist there. The realization that many astronomical associations—including "10-Sky" and the plumed serpent complex with the planet Venus—likely reflect disjunctions rather than a

conservation of original meaning is critical to appreciating the time-depth of Mesoamerican belief systems and their ability to change and evolve through time.

Perhaps the most important argument presented in this thesis is that the first stone, (also the "first sky") of creation was set (i.e., "terminated"), which occurred in the year 2360 B.C.E. according to inscriptions at the site of Palenque. This event seems to relate to the origins of *Na Ho Chan*, or "First 5-Sky," and mythology associated with the Maize Lord's death and watery underworld journey, as well as the completion of a "jaguarian" age of time often symbolized by the Jaguar God of the Underworld. Chronological and thematic comparisons between the Palenque Cross Group inscriptions and the *Ux Ahal* panels at Yaxchilan, containing the mythic origins of the ballgame, provide support for this identification. Quite intriguingly, interdisciplinary evidence points to the 24th century B.C.E. as an historical period defined by at least one anomalous natural event. The year 2360 B.C.E., in particular, was reconstructed, nearly two millennia ago, as the date of the legendary Deluge event which forms the basis of era-based time ideology of the Judeo-Christian tradition.

One of the bizarre circumstances of this important Fourth-to-Fifth era change, according to Mesoamerican tradition, is that it is based on a *double* occurrence—first and second 9-Wind dates at Palenque, first and second *Ahal* in the myth of the ballgame, and "First (and Second) 5-Sky." I have suggested that the challenge of expressing the doubled nature of the origins of the Fifth era was solved through creative conventions which aid in the identification of this mythic complex, among them the "double-Five" ("II") and the "two-Five" (":I" or "Seven") motifs, and the use of identical, paired

crossed-bands ("X X"). A wealth of Mesoamerican mythology seems to relate to the underworld journey of the Maize Lord, fantastic death gods associated with *Na Ho Chan* and the termination of the "first stone," and legendary, "Seven"-prefixed creatures which form part of a body of mythology related to the emergence of the Maize Lord and the origins of the modern world, an age of maize—the Fifth in a common, ancient Mesoamerican count.

With the loss of traditions such as the Classic Maya lowland stela-erecting tradition, the abandonment of a ballplaying tradition which drew on the symbolism of *Ux Ahal*, and the disappearance of language of the stone-setting narrative (including *Na Ho Chan* and "6-Sky"), era-based time concepts in the Maya area came to be understood from the start of the Fourth era, the start of the Long Count. The significance of the underworld journey of the Maize Lord, followed by his "accession" to power in the 24th century B.C.E. according to Palenque tradition, seems to have lost its association with an era-based time count, of which *Na Ho Chan* was an important concept. On the other hand, Central Mexican cultures, which were never connected to the Long Count calendar, seem to preserve the notion of the Fifth era and the origins of an age of maize through their mostly oral traditions. The era-related time symbolism of the journey of its cultural hero, the plumed serpent, to the underworld, followed by his emergence with maize at the start of the Fifth era, was somehow "registered" in Central Mexican ideology.

While the organization of the deeper past into separate units has long been attributed to the Aztecs, with the ancient Maya interpreted to believe in their own, separate "creation" when three stones were planted at the start of the Long Count,

evidence suggests that a five-creations model represented by the Five Suns is no more an "Aztec" phenomenon than the Long Count is a "Maya" one. These traditions appear to be much more ancient than the respective cultural/linguistic groups which have made them famous. It is important to note that a relationship which has long been recognized to exist between the Fifth Sun and ritual warfare and sacrifice among the Aztecs is likely based on the same Fourth-to-Fifth era change recorded as the first and second *Ahal* at Yaxchilan, used to justify ritual warfare and sacrifice among the Classic Maya. Each of these seemingly-unrelated traditions actually draws on the same, fundamentally-related, ancient Mesoamerican time model.

The importance of a stone-setting ideology which organized the mythic past to the ideological roots of the stela-erecting tradition, made famous by the Classic Maya, also cannot be underestimated. Through the setting of stones in historical time, rulers portrayed themselves in the guise or company of deities such as *Chaak*, *K'awiil*, the Jaguar God of the Underworld (JGU), and the Maize Lord—in other words, the principle actors at stone-setting events in the mythic past. By re-enacting the legendary actions of these ancient deities at period-endings in historical time, rulers seem to have evoked powers and manipulated a belief system which legitimized their supremacy and right to rule.

Survival of some aspects of these ancient time concepts is notable in colonial and contemporary Maya accounts. For example, according to a Tzotzil myth from Zinacantan, "Na Hoh" is the name of the mountain where corn originated after the flood (Bassie-Sweet 2008: 80). In a fascinating variation, a seven-stone model of time known

as the Ritual of the Angels from Yucatan is recorded in the Chilam Balam of Chumayel (Newsome 2001: 205-208). Instead of grouping the two "5-Skies" together as the same "stone," this Yucatecan tradition seems to have counted them as two separate stones (i.e., by counting the *Na Ho Chan K'an Tuun* as its own separate age). This seven-stone model of time appears to be based on original, Mesoamerican time cosmology, not the influence of Christianity during the Colonial period, and possibly may relate to a "seven-layer" model of the sky collected in Yucatan by Tozzer (1907: 154).

While Eliade (1971) refers to "archaic" societies as lacking the sense of linear history displayed by the Judeo-Christian tradition, this thesis suggests that era-based time concepts of ancient Mesoamerica actually carried a strong sense of linear history which, in the Maya area, was represented as a progressive sequence of stones. Some of the most important Mesoamerican beliefs—regarding death, sacrifice, resurrection, emergence, "creation," and origin—seem to be based on occurrences *within* the so-called 13 Bak'tun "cycle," not as if they had occurred spontaneously at 4 Ajaw 8 Kumk'u.

While these beliefs may make little sense, at first glance, to the western-trained mind, there seems to be a basic logic in the patterns of ancient Mesoamerican "mythistory" which reflect a structure of time, as defined by stone-settings, that is tangibly real, and which mathematics and numbers come up short of defining. I have attempted to piece together these patterns and their chronological meanings which, when taken together, might be seen to unite, rather than divide, much of the Mesoamerican region and its people. The great legacy of daykeeping and timekeeping traditions—which surely extend much further into the past than surviving stone monuments are able

to verify, and which still continue in many communities to this day—perhaps may be fully realized if the three stones of creation are studied for their significance to the sequential ordering of time and of the ages which preceded our current one, which were clearly of such central importance to ancient Mesoamerican culture and to the way in which "history" was constructed and understood.

FIGURE CREDITS

- Fig. 1a: Humboldt celt, drawing by the author after Peñafiel (1890: pl. 119) in Benson (1996: 134)
- Fig. 1b: Quirigua Stela C, drawing by Matthew Looper (2003: 159)
- Fig. 2: Map of Mesoamerica, adapted from Taube (2004: xvi)
- Fig. 3: Aztec Calendar Stone, drawing by Emily Umburger in Stuart (2011: 204)
- Fig. 4a: Maize Lord Underworld scene with Hero Twins K1302, photograph by Justin Kerr
- Fig. 4b: Maize Lord Resurrection scene with Hero Twins K1892, drawing by Nicholas Hellmuth (1987: 209, Fig. 439)
- Fig. 4c: Izapa Stela 2, drawing by Ayax Moreno in Guernsey (2006: 55)
- Fig. 4d: Maize Lord Underworld and Resurrection Scene K731, drawing by Matthew Looper (2003: 5)
- Fig. 5a: Detail of Copan Stela 23 based on a drawing by Morley (1920, Fig. 26)
- Fig. 5b: Detail of Coba Stela 1, photo by the author with overlay drawing by Linda Schele in Freidel et al. (1993: 62)
- Fig. 5c: Detail of Piedras Negras Altar 1, drawing by Matthew Looper (2003: 71)
- Fig. 5d: Detail of Palenque Tablet of the Cross, drawing by Merle Greene Robertson in Bassie-Sweet (2008: 112)
- Fig. 5e: Detail of Palenque Tablet of the Sun, based on a drawing by Merle Greene Robertson in Bassie-Sweet (2008: 118)
- Fig. 5f: Detail of Dos Pilas Panel 18, drawing by David Stuart in Freidel and Guenter (2006: 72)
- Fig. 5g: Detail of Vase of the Seven Gods, K2796, photograph by Justin Kerr
- Fig. 6a: Crossed-batons verb from Palenque Tablet of the Cross, drawing by Merle Greene Robertson in Bassie-Sweet (2008: 112)
- Fig. 6b: "ti' Chan ("Edge of Sky") Yax Three Stones/Hearth Place" glyphs from unprovenanced early greenstone mask, drawing by David Stuart (2005: 165)

- Fig. 7: Graphic showing the occurrences of numbered sky glyphs in Maya writing
- Fig. 8a: Detail of Copan Stela A south side, drawing by Linda Schele in Newsome (2001: 178)
- Fig. 8b: Yaxchilan Panel 6, modified from a drawing by Ian Graham (1982: 159)
- Fig. 8c: Fragment from a Nakbé vessel, drawing by the author after F. Lopez in Hansen et al. (1993: 299, Fig. 10.6)
- Fig. 9a: El Encanto Stela 1 Side A drawing by William Coe in Jones and Satterthwaite (1982: Fig. 77)
- Fig. 9b: Uaxactun *Na Lahun Chan* variant, photograph by Claudia Obrocki in Grube and Gaida (2006: 113, Abb. 11.1)
- Fig. 9c: Detail of Caracol Stela C, drawing by Linda Schele in Stuart (2005:160)
- Fig. 9d: Fragment of Piedras Negras Stela 29, photo by Nicholas M. Hellmuth in Mayer (1995: Pl.39)
- Fig. 9e: Naranjo Altar 1, photo and drawing by the author
- Fig. 9f: Tonina Monument 139, drawing by Ian Graham based on a drawing by Peter Matthews (1999: 169)
- Fig. 10a: *Unen K'awiil Ch'ok Na Ho Chan Ajaw* title, Palenque Temple of the Foliated Cross, drawing by Linda Schele in Houston y Stuart (1994:72)
- Fig. 10b: Detail of Na Ho Chan birth scene in K688, photograph by Justin Kerr
- Fig. 10c: Detail of K791, drawing by Alex Tokovinine in Stone y Zender (2011:82)
- Fig. 10d: Detail of Tikal Stela 5, drawing by William Coe in Jones and Satterthwaite (1982: Fig. 8)
- Fig. 10e: Lintel from Itzimte'-Bolonchen, drawing by Eric von Euw (1977:31)
- Fig. 11a: Naranjo Stela 35, drawing by Ian Graham (1978:92)
- Fig. 11b: Detail of K4118, photograph by Justin Kerr
- Fig. 11c: Detail of K1299, photograph by Justin Kerr
- Fig. 11d: Copan Stela F Front, sacrifice of the Jaguar God, drawing by Anne Dowd in Newsome (2001: 118)

- Fig. 11e: Copan Stela F, back, drawing by Linda Schele after original by Barbara Fash in Newsome (2001: 161)
- Fig. 12a: Detail of Ucanal Stela 4, drawing by the author
- Fig. 12b: Ixlu Altar 1, drawing by William Coe in Jones and Satterthwaite (1982: Fig. 81)
- Fig. 12c: Detail of Jimbal Stela 1, drawing by William Coe in Jones and Satterthwaite (1982: Fig. 78)
- Fig. 13a: Detail of Hauberg Stela, drawing by Linda Schele in Stuart (1988: 220)
- Fig. 13b: Detail of K8009, Maize Lord with "'6-Sky' Person" label, drawing by Linda Schele in Freidel et al. 1993: 73)
- Fig. 13c: Detail of Rio Azul Tomb, drawing by Andrea Stone after drawing by David Stuart in Graham (1986: 456)
- Fig. 13d: Detail of Temple of the Foliated Cross Panel, drawing by Merle Greene Robertson in Bassie-Sweet (2008: 116)
- Fig. 14a: Detail of Nim Li Punit Stela 1, drawing by Nikolai Grube in Grube et al. (1999: 31)
- Fig. 14b: Detail of Palenque Temple of the Cross, drawing by Karen Bassie-Sweet after Merle Greene Robertson in Bassie-Sweet (2008: 231)
- Fig. 14c: Detail of K1398, drawing by Karl Taube in Miller and Taube (1993: 143)
- Fig. 14d: One Sky-in-Hand glyph from La Corona Panel, drawing by Linda Schele in Newsome (2001: 119)
- Fig. 15: Palenque Triad Gods, GI, GII (*Unen K'awiil*) and GIII, drawing by David Stuart in Stuart and Stuart (2008: 189)
- Fig. 16a: *Ux Ahal K'uh* title for *Unen K'awiil*, drawing by Linda Schele in Stuart (2005: 173)
- Fig. 16b: GIII Title, drawing by Linda Schele in Stuart (2005: 175)
- Fig. 17a: Jaguar, Snake, and Water Thrones, Palenque Palace Table, drawing by Linda Schele in Looper (2003: 162)
- Fig. 17b: Overhead view of triadic Cross Group, adapted from a drawing by Matthew Looper (2003: 163)

- Fig. 17c: Detail, Temple of the Sun, adapted from a drawing after Maudslay (IV, Pl. 88) in Kubler (1969: n.p.)
- Fig. 18: Palenque Timeline of 9-Wind dates and birth of "Bloodletter of the Snake"
- Fig. 19a: Maize Lord underworld journey, K3033, drawing by Linda Schele in Looper (2009: 115)
- Fig. 19b: Bone from Burial 116, Tikal, drawing by Aubrey Trik (1963: fig. 3a) in Stuart (1988: 189)
- Fig. 20a: Waterlily Serpent marked with K'an symbol, drawing by Nicholas M. Hellmuth (1987: 206: pl. 430)
- Fig. 20b: Detail of Bone from Burial 116, drawing by Aubrey Trik (1963: fig. 3a) in Stuart (1988: 189)
- Fig. 20c: *K'an Ahk* turtle emergence scene, drawing by Linda Schele in Freidel et al. (1993: 282)
- Fig. 20d: *Na Te' K'an* Tree, Foliated Cross Tablet, Palenque, drawing by Raúl Velásquez in Florescano (1999: 134), after Schele and Miller (1986: 115)
- Fig. 20e: *K'an Juub Matwiil* detail from Temple of the Foliated Cross, drawing by Linda Schele in Freidel et al. (1993: 183)
- Fig. 20f: Maize Lord in Cave of emergence scene showing *K'an* cross, drawing by Heather Hurst in Saturno et al. (2005: 60)
- Fig. 20g: "5 Flower Mountain" glyph after Schele and Miller (1986: pl. 122) in Looper (2003: 79)
- Fig. 21: Timeline of Palenque mythology showing use of "II" and ":I" in reference to 24th century B.C.E. double era dates
- Fig. 22a: Detail of Turtle from, Maize Lord Resurrection Scene K1892, drawing by Nicholas M. Hellmuth (1987: 209, Fig. 439)
- Fig. 22b: Seven-prefixed Waterlily Monster, drawing by Nicholas Hellmuth (1987: 161, pl. 323)
- Fig. 22c: "Seven Water Place" glyph, drawing by M. Quenon after Robiczek and Hales (1991: Table 8F) in Quenon and LeFort (1997: 893)

- Fig. 22d: *Itzam K'an Ahk* name glyph, Lintel 3, Piedras Negras, drawing by Karen Bassie-Sweet (2008: 137)
- Fig. 22e: "Seven Black-Yellow Place" in Palenque Temple of the Sun, adapted from a drawing after Maudslay (IV, Pl. 88) in Kubler (1969: n.p.)
- Fig. 22f: "Seven Black-Yellow Place" Variant, drawing by Andrea Stone after *Maya Vase Book* 6: 1002 in Stone and Zender (2011: 36)
- Fig. 22g: Seven-*K'an* variant in Taube (2004: 144) after Emmerich (1984: No. 45)
- Fig. 23a: Dedication of "6-Sky" house 542 days after 4 Ajaw 8 Kumk'u, Palenque Cross Tablet, drawing by Linda Schele in Stuart (2005: 165)
- Fig. 23b: Kan Balam's impersonation of "Bloodletter of the Snake," Palenque Temple of the Cross, drawing by Merle Greene Robertson in Stuart (2006: 112)
- Fig. 24a: Wak Ehb Nal glyph, drawing by Linda Schele in Friedel et al. (1993: 353)
- Fig. 24b: *Ux Ahal* gyph, drawing by Linda Schele in Freidel et al. (1993: 354)
- Fig. 24c: Yaxchilan Ballcourt Panel 7 detail, drawing by Ian Graham (1982: 160)
- Fig. 24d: Yaxchilan Ballcourt Panel 7, drawing by Ian Graham (1982: 160)
- Fig. 25: Comparison of Palenque and Yaxchilan Distance Numbers
- Fig. 26: K'an Ehb stairs at Coba, drawing by David Stuart in Saturno et al. (2010: 64)
- Fig. 27a: *K'an Tuun* in Central Ballcourt Marker, Copan, drawing by Barbara Fash in Newsome (2001: 69)
- Fig. 27b: *Sitz' Winic Yax Chan*, a glutton "First Sky" *way* character, drawing by Karl Taube in Miller and Taube (1993: 87)
- Fig. 27c: Tonina ballcourt named using "Seven Black-Yellow Place" glyph, drawing by Linda Schele in Freidel et al. (1993: 372)
- Fig. 27d: Depiction of Seven-Sip, in Stone and Zender (2011: 160)
- Fig. 28: Ahuelican, Guerrero Plaque drawing by Raúl Velásquez based on Schele (1995: Fig. 11a) in Florescano (1999: 136)
- Fig. 29a: Map of La Venta buried mosaics adopted from Freidel et al. (1993: 134)
- Fig. 29b: Photo of La Venta buried mosaics in Drucker (1959), in Gonzalez Lauck (1996: 79)

- Fig. 30a: Variant of four-dots-and-bar motif, drawing by Peter Joralemon (1971: 33, Fig. 85)
- Fig. 30b: Variant of four-dots-and-bar motif, drawing by Peter Joralemon (1971: 64, Fig. 182)
- Fig. 30c: Variant of four-dots-and-bar motif, drawing by Peter Joralemon (1971: 64, Fig. 181)
- Fig. 30d: Variant of four-dots-and-bar with Maize Lord substituting for "bar," Río Pesquero celt, in Schele (1995: 106)
- Fig. 30e: bar on corn element, drawing by Peter Joralemon (1971: 60, Fig. 173)
- Fig. 30f: "II" motif and corn, drawing by the author based on a photograph in Benson and de la Fuente (1996: 209)
- Fig. 31a: Offering 4 figurine and celt assemblage drawing, in Drucker (1959: 153)
- Fig. 31b: Offering 4 figurine and celt assemblage photo, in Drucker (1959: Pl. 30)
- Fig. 31c: Four of six celts from Offering 4 with incised designs, in Drucker (1959: 157)
- Fig. 32a: Horizon sight-line astronomy instruments, drawing by P. Dunham in Aveni (2001: 65)
- Fig. 32b: Crossed-bands defined by solstice positions, drawing by Raúl Velásquez in Florescano (1999: 109), based on Villa Rojas (1986: 135, fig. 2)
- Fig. 32c: Painted motif from a Viejón Vessel, drawing by the author after Medellín, 1960, in Bernal (1969: 150)
- Fig. 32d: Example of "stacked" crossed-bands common on Olmec Maize Lords, drawing by the author
- Fig. 32e: La Venta Monument 77, photograph by the author
- Fig. 33a: La Venta Monument 19, drawing by E. Contreras S. in Bernal (1969: 60, Fig. 6)
- Fig. 33b: La Venta Altar 5, frontal view, photograph by the author
- Fig. 33c: La Venta Altar 4, frontal view, photograph by Mariano Monterrosa in de la Fuente (1981: 91)
- Fig. 34a: Detail, La Venta Altar 5, west side, photograph by the author
- Fig. 34b: Detail, La Venta Altar 5, east side, photograph by the author

- Fig. 34c: Detail, La Venta Altar 5, detail of baby, photograph by the author
- Fig. 34d: Detail, La Venta Altar 5, detail of headdress, photograph by the author
- Fig. 34e: Detail, La Venta Altar 5, detail of headdress, photograph by the author
- Fig. 35a: Altar 4 crossed-bands close-up, photograph by the author
- Fig. 35b: Altar 4 side-angle, drawing by Raúl Velásquez based on Campos (1988: 29) in Florescano (1999: 82)
- Fig. 35c: Altar 4 west side, view of individual and rope, based on a photograph by the author
- Fig. 36a: "Three stones" motif, drawing by the author
- Fig. 36b: Humboldt Celt close-up, photograph after Peñafiel (1890: pl. 119) in Benson (1996: 134)
- Fig. 36c: Central *K'an* cross, drawing by the author
- Fig. 36d: Basal Earth band, drawing by the author
- Fig. 36e: Proposed reading order for Humboldt Celt, drawing by the author after Peñafiel (1890: pl. 119) in Benson (1996: 134)
- Fig. 36f: Vertically-oriented crossed-bands, drawing by the author

REFERENCES

Aveni, Anthony.

- 1992. Conversing with the Planets: How Science and Myth Invented the Cosmos.

 New York: Times Books.
- 1996. Review (untitled) of Maya Cosmos: Three Thousand Years on the Shaman's Path. American Anthropologist, New Series 98 (1): 197-198.
- 2001. Skywatchers. Austin: University of Texas Press.
- Barrera Vásquez, Alfredo. 1980. *Diccionario Maya Cordemex, Maya-Español, Español-Maya*. Mérida: Ediciones Cordemex.
- Barrois, Ramzy R., and Alexandre Tokovinine. 2005. El Inframundo y el mundo celestial en el Juego de Pelota Maya. In *XVIII Simposio de Investigaciones Arqueológicas en Guatemala*, 2004, ed. J.P. Laport, B. Arroyo, and H. Mehia, pp. 27-38. Museo Nacional de Arqueologia y Etnologia: Guatemala.
- Bassie-Sweet, Karen. 2008. *Maya Sacred Geography and the Creator Deities*. Norman: University of Oklahoma Press.
- Baudez, Claude-François. 1996. The Cross Group at Palenque. In *Eighth Palenque Round Table, 1993*, ed. Merle Greene Robertson, Martha J. Macri, and Jan

 McHargue, pp. 121-128. San Francisco: Pre-Columbian Art Research Institute.

- Benson, Elizabeth P.
 - 1971. An Olmec Figure at Dumbarton Oaks. *Studies in Pre-Columbian Art and Archaeology 8*. Washington, D.C.: Dumbarton Oaks.
 - 1996. Collections of Olmec Objects Outside of Mexico. In *Olmec Art of Ancient Mexico*, ed. Elizabeth P. Benson and Beatriz de la Fuente, pp. 133-137.Washington: National Gallery of Art.
- Benson, Elizabeth P., ed. 1981. *The Olmec & Their Neighbors: Essays in Memory of Matthew Stirling*. Washington, D.C.: Dumbarton Oaks Research Library and Collections.
- Berlin, Heinrich. 1963. The Palenque Triad. *Journal de la Société des Américanistes* [n.s.] 52: 91-99.
- Bernal, Ignacio. 1969. *The Olmec World*. Berkeley and Los Angeles: University of California Press.
- Bernatz, Michelle Mae. 2006. The Concept of Divinity in Maya Art: Defining God L. Ph.D. diss., University of Texas at Austin.
- Beyer, Hermann. 1927. Las dos estelas Maya de Tila, Chis. *Memorias y Revista de la Sociedad Cientifica "Antonio Alzate."* 47 (1-4): 123-143. Mexico, D.F.
- Blom, Frans. 1926-1927. *Tribes and Temples, Vols I and II*. New Orleans: The Tulane University of Louisiana.
- Boone, Elizabeth Hill. 2000. Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs. Austin: University of Texas Press.

- Bricker, Victoria. 1981. *The Indian Christ, the Indian King: The Historical Substrate of Maya Myth and Ritual*. Austin: University of Texas Press.
- Callaway, Carl D. 2006. The Maya Cross at Palenque: A Reappraisal. Master's Thesis, University of Texas at Austin.
- Campbell, Lyle and Terrence Kaufman. 1976. "A Linguistic Look at the *Olmec*." *American Antiquity* 41 (1), 80-89.
- Campos, Julietta. 1988. *Bajo el signo de Ix Bolon*. Mexico City: Gobierno del estado de Tabasco-Fondo de Cultura Económica.
- Carlson, John. 1981. Olmec Concave Iron-Ore Mirrors: The Aesthetics of a Lithic Technology and the Lord of the Mirror. In *The Olmec & Their Neighbors: Essays in Memory of Matthew Stirling*, ed. Elizabeth P. Benson, pp. 117-147.

 Washington, D.C.: Dumbarton Oaks Research Library and Collections.
- Carlson, John, and Linda C. Landis. 1985. Bands, Bicephalic Dragons, and Other Beasts: The Sky Band in Maya Art and Iconography. In *Fourth Palenque Round Table*, 1980, ed. Merle Greene Robertson and Elizabeth P. Benson, pp. 115-140. San Francisco: Pre-Columbian Research Institute.

Christenson, Allen.

- 2001. Art and Society in a Highland Maya Community: The Altarpiece of Santiago Atitlán. Austin: University of Texas Press.
- 2007. *Popol Vuh: Sacred Book of the Quiché Maya*. Electronic version of 2003 publication. http://www.mesoweb.com/publications/Christenson/PopolVuh.pdf.

- Christie, Jessica Joyce. 2003. *Maya Palaces and Elite Residences: An Interdisciplinary Approach*. Austin: University of Texas Press.
- Clark, John E. 2004. Mesoamerica Goes Public: Early Ceremonial Centers, Leaders, and Communities. In *Mesoamerican Archaeology: Theory and Practice*, ed. Julia A. Hendon and Rosemary A. Joyce, pp. 43-72. Malden, MA: Blackwell Pub.
- Clark, John E., Julia Guernsey, and Barbara Arroyo. 2010. Stone Monuments in Preclassic Civilization. In *The Place of Stone Monuments: Context, Use, and Meaning in Mesoamerica's Preclassic Transition*, ed. Julia Guernsey, John E. Clark, and Barbara Arroyo, pp. 1-26. Washington, D.C.: Dumbarton Oaks.
- Cloud, Preston. 1988. *Oasis in Space: Earth History from the Beginning*. New York: W.W. Norton.

Coe, Michael D.

- 1962. Mexico. New York: Frederick Praeger.
- 1965. *The Jaguar's Children: Pre-Classic Central Mexico*. New York: Museum of Primitive Art.
- 1968. America's First Civilization. New York: American Heritage.
- 1973. The Maya Scribe and His World. New York: Grolier Club.
- 1981. Religion and the Rise of Mesoamerican States. In *The Transition to Statehood in the New World*, ed. Grant D. Jones and Robert R. Kautz, pp. 157–171. Cambridge: Cambridge University Press.
- 1989. The Hero Twins: Myth and Image. In *The Maya Vase Book, Volume 1*, ed. Justin Kerr, pp. 161-184. New York: Kerr Associates.
- Coe, Michael D., ed. 1995. *The Olmec World: Ritual and Rulership*. Princeton: The Art Museum, Princeton University.

- Coggins, Clemency. 1980. The Shape of Time: Some Political Implications of a Four-Part Figure. In *American Antiquity* 45 (4): 727-739.
- Cohodas, Marvin. 1991. Ballgame Imagery of the Maya Lowlands: History and Iconography. In *The Mesoamerican Ballgame*, ed. Vernon L. Scarborough and David R. Wilcox, pp. 251-288. Tucson: University of Arizona Press.
- Cortéz, Constance. 1986. *The Principle Bird Deity in Preclassic and Early Classic Maya Art*. Master's Thesis, The University of Texas at Austin.
- Darnell, Regna. 2011. What is History? An Anthropologist's Eye View. In *Ethnohistory* 58 (2): 213-227.
- De la Fuente, Beatriz. 1981. Toward a Conception of Monumental Olmec Art. In *The Olmec & Their Neighbors: Essays in Memory of Matthew Stirling*, ed. Elizabeth P. Benson, pp. 83-94. Washington, D.C.: Dumbarton Oaks Research Library and Collections.
- Drucker, Philip, Robert F. Heizer, and Robert J. Squier. 1959. Excavations at La Venta Tabasco, 1955. Washington: United States Government Printing Office.
- Eliade, Mircae. 1971. *The Myth of the Eternal Return, or Cosmos and History*. Translated by Willard R. Trask. Princeton: Princeton University Press. [Originally published in French as *Le mythe de l'éternel retour: Archetype et repetition* by Librairie Gallimard, NRF, Paris, 1949.]
- Emmerich, André. 1984. *Masterpieces of Pre-Columbian Art from the Collection of Mr. and Mrs.Peter W. Gray.* New York: André Emmerich and Perls Galleries.

- Fields, Virginia M. 1991. The Iconographic Heritage of the Maya Jester God. In *Sixth Palenque Round Table 1986*, ed. Virginia M. Fields, pp. 167-174. Norman: University of Oklahoma Press.
- Florescano, Enrique. 1999. *The Myth of Quetzalcoatl*. Baltimore: Johns Hopkins University Press.
- Freidel, David A. 1995. Preparing the Way. In *The Olmec World: Ritual and Rulership*, ed. Michael D. Coe, pp. 3-10. Princeton: The Art Museum, Princeton University.
- Freidel, David A., and Stanley P. Guenter. 2006. Soul Bundle Caches, Tombs, and Cenotaphs. In *Sacred Bundles: Ritual Acts of Wrapping and Binding in Mesoamerica*, ed. Julia Guernsey and F. Kent Reilly, pp. 59-79. Barnardsville, North Carolina: Boundary End Archaeology Research Center.
- Freidel, David A., and Barbara MacLeod. 2000. Creation Redux: New Thoughts on Maya Cosmology from Epigraphy, Iconography, and Archaeology. In *The PARI Journal* 1 (2): 1-8.
- Freidel, David A. and Linda Schele.
 - 1988. Symbol and Power: A History of the Lowland Maya Cosmogram. In *Maya Iconography*, ed. Elizabeth P. Benson and Gillett G. Griffin, pp. 44-93.Princeton: Princeton University Press.
 - 1990. A Forest of Kings: The Untold Story of the Ancient Maya. New York: Morrow.
 - 1991. The Courts of Creation: Ballcourts, Ballgames, and Portals to the Maya Otherworld. In *The Mesoamerican Ballgame*, ed. Vernon L. Scarborough and David R. Wilcox, pp. 289-315. Tucson: University of Arizona Press.

- Freidel, David A., Linda Schele, and Joy Parker. 1993. *Maya Cosmos: 3,000 Years on the Shaman's Path.* New York: Perennial.
- Garcia Moll, Roberto. 1979. Un Relieve Olmeca en Tenosique, Tabasco. *Estudios de Cultura Maya* 12: 52-59.
- Gardner, Brandt. 1986. Reconstructing the Ethnohistory of Myth: A Structural Study of the Aztec "Legend of the Five Suns." In *Symbol and Meaning Beyond the Closed Community: Essays in Mesoamerican Ideas*, ed. G.H. Gossen, pp. 19-34. Albany: Institute for Mesoamerican Studies, SUNY.

Girard, Rafael.

- 1979. *Esotericism of the Popol Vuh*. Pasadena, CA: Theosophical University Press.
- 1995. People of the Chan. Chino Valley, AZ: Continuum Foundation.

González Lauck, Rebecca.

- 1996. La Venta: An Olmec Capital. In *Olmec Art of Ancient Mexico*, ed. Elizabeth P. Benson and Beatriz de la Fuente, pp. 73-81. Washington: National Gallery of Art.
- 2010. The Architectural Setting of Olmec Sculpture Clusters at La Venta,

 Tabasco. In *The Place of Stone Monuments: Context, Use, and Meaning in Mesoamerica's Preclassic Tradition*, ed. Julia Guernsey, John E. Clark, and Barbara Arroyo, pp. 129-148. Washington, D.C.: Dumbarton Oaks.
- Gould, Stephen J. 1987. *Time's Arrow, Time's Cycle: Myth and Metaphor in the Discovery of Geological Time*. Cambridge: Harvard University Press.

Graham, Ian.

- 1986. Looters Rob Graves and History. *National Geographic* 169 (4): 453-461.
- 1978. *The Corpus of Maya Hieroglyphic Inscriptions: Naranjo, Chunhuitz, Xunantunich.* Vol. 2, pt. 2. Cambridge: Peabody Museum, Harvard University Press.
- 1982. *Corpus of Maya Hieroglyphic Inscriptions: Yaxchilan. Vol. 3, Part 3.*Cambridge: Peabody Museum, Harvard University Press.

Graham, Ian, and Peter Matthews.

- 1999. *The Corpus of Maya Hieroglyphic Inscriptions: Tonina*. Vol. 6, pt. 3. Cambridge: Peabody Museum, Harvard University Press.
- Graham, Mark Miller. 1992. Art-Tools, and the Language of Power in the Early Art of the Atlantic Watershed of Costa Rica. In *Wealth and Hierarchy in the Intermediate Area: A Symposium at Dumbarton Oaks, 1992*, ed. Frederick W. Lange, pp. 165-206. Washington, D.C.: Dumbarton Oaks.

Grove, David C.

- 1993. "Olmec" Horizons in Formative Period Mesoamerica: Diffusion or Social Evolution? In *Latin American Horizons*, ed. Don Stephen Rice, pp. 83-111. Washington, D.C.: Dumbarton Oaks.
- 2006. Faces of the Earth at Chalcatzingo, Mexico: Serpents, Caves, and Mountains in Middle Formative Period Iconography. In *Olmec Art and Archaeology in Mesoamerica*, pp. 277-295. New Haven: Yale University Press.
- Grube, Nikolai. 1994. A Preliminary Report on the Monuments and Inscriptions of La Milpa, Orange Walk, Belize. *Baessler-Archiv*, Neue Folge, Band XLII: 217-238.

Grube, Nikolai, and Maria Gaida. 2006. *Die Maya: Schrift und Kunst*. Berlin und Köln: SMB-DuMont.

Grube, Nikolai, and Simon Martin.

- 2000. *Chronicle of the Maya Kings and Queens*. New York: Thames and Hudson.
- 2001. The Coming of Kings: Writing and Dynastic Kingship in the Maya Area Between the Late Preclassic and the Early Classic. In *The Proceedings of the Maya Hieroglyphic Workshop*, March 10-11, 2001, pp. 1-92. Austin: University of Texas at Austin.
- 2008. *Chronicle of the Maya Kings and Queens*. New York: Thames and Hudson.

Grube, Nikolai, and Linda Schele.

- 1988. A Venus Title on Copan Stela F. Copan Note 41. Copan, Honduras: Copan Mosaics Project and the Instituto Hondureño de Antropología e Historia.
- 1990. A Suggested Reading Order for the West Side of Stela J. Copan Note 88.
 Copan, Honduras: Copan Mosaics Project and the Instituto Hondureño de Antropología e Historia.
- 1993. Naranjo Altar 1 and Rituals of Death and Burials. *Texas Notes on Precolumbian Art, Writing, and Culture, No. 54*. The Center for the History and Art of Ancient American Culture (CHAAC). Austin: Department of Art. The University of Texas at Austin.
- Grube, Nikolai, Barbara MacLeod, and Phil Wanyerka. 1999. A Commentary on the Hieroglyphic Inscriptions of Nim Li Punit, Belize. *Research Reports on Ancient Maya Writing*, No. 41. Washington, D.C.: Center for Maya Research.

Guernsey, Julia.

- 2006. Ritual and Power in Stone. Austin: University of Texas Press.
- 2010. A Consideration of the Quatrefoil Motif in Preclassic Mesoamerica. *RES*: 57/58: 75-96.
- Gutierrez, Mary Ellen. 1996. The Maya Ballcourt and the Mountain of Creation: Myth, Game, and Ritual. Ph.D. Diss., The University of Texas at Austin.
- Headrick, Annabeth. 2007. The Teotihuacan Trinity: The Sociopolitical Structure of an Ancient Mesoamerican City. Austin: University of Texas Press.
- Heizer, Robert F. 1971. Commentary on: The Olmec Region—Oaxaca. In *Contributions* of the University of California Archaeological Research Facility 11: 51-69.

 Berkeley.
- Helmke, Christopher, Harri Kettunen, and Stanley Guenter. 2006. Comments on the Hieroglyphic Texts of the B-Group Ballcourt Markers at Caracol, Belize. *Wayeb Notes* No. 23.

Helmuth, Nicholas M.

- 1987. Monster und Menschen in der Maya-Kunst. Graz: Akademische Druck -u. Verlagsanstalt.
- 1991. A Hunting God and the Maya Ball Game of Guatemala. An Iconography of Maya Ceremonial Head-Dresses. In *Mesoamerican Ballgame*, ed. Gerard W. van Bussel, Paul L. F. van Dongen, and Ted J. J. Leyenaar, pp. 135-159. Leiden: Rijksmuseum voor Volkenkkunde.

- Houston, Stephen, and David Stuart. 1994. Classic Maya Place Names. *Studies in Pre-Columbian Art and Archaeology*, No. 33. Washington, D.C.: Dumbarton Oaks Research Library and Collection.
- Hunt, Eva. 1977. The Transformation of the Hummingbird: The Cultural Roots of a Zinacantecan Mythic Poem. Ithaca, NY: Cornell University Press.
- Jansen, Maarten E.R.G.N., and Gabina Aurora Pérez Jiménez. 2007. *Encounter with the Plumed Serpent: Drama and Power in the Heart of Mesoamerica*. Boulder: University Press of Colorado.
- Jones, Christopher, and Linton Satterthwaite. 1982. *The Monuments and Inscriptions of Tikal*. Philadelphia: University Museum, University of Pennsylvania.

Joralemon, Peter D.

- 1971. A Study of Olmec Iconography. *Studies in Pre-Columbian Art and Archaeology*, No. 7. Washington, D.C.: Dumbarton Oaks.
- 1996. In Search of the Olmec Cosmos: Reconstructing the World View of Mexico's First Civilization. In *Olmec Art of Ancient Mexico*, ed. Elizabeth Benson and Beatriz de la Fuente, pp. 51-59. Washington: National Gallery of Art.

Justeston, John.

- 1986. The Origins of Writing: Preclassic Mesoamerica. *World Archaeology* 17: 437-458.
- 1988. The Non-Maya Calendars of Southern Veracruz-Tabasco and the Antiquity of the Civil and Agricultural Years. *JML* 6: 1-21.

- Justeson, John S., and Peter Matthews. 1983. The Seating of the Tun: Further Evidence Concerning a Late Preclassic Maya Stela Cult. In *American Antiquity* 48 (4): 586-593.
- Justeson, John S., William M. Norman, Lyle Campbell, and Terrence Kaufman. 1985. *The Foreign Impact on Lowland Mayan Language and Script*. Middle American Research Institute Publication No. 53. New Orleans: Tulane University.
- Kaufman, Terrence. 2003. A Preliminary Mayan Etymological Dictionary. Digital Resource.
- Kaufman, Terrence, and John Justeson. 2001. Epi-Olmec Hieroglyphic Writing and Texts. In *The Proceedings of the Maya Hieroglyphic Workshop*, March 10-11, 2001, pp. 93-218. Austin: The University of Texas at Austin.
- Kelley, David H. 1965. Birth of the Gods at Palenque. In *Estudios de Cultura Maya*, Tomo 5, pp. 93-134. Mexico, D.F.: UNAM.
- Kerr, Justin. Maya Vase Database. http://research.mayavase.com/kerrmaya.html.
- Kirchhoff, Paul. 1943. Mesoamerica: Its Geographical Limits, Ethnic Composition and Cultural Characteristics. Translated by Dr. Norman McQuown from *Acta Mesoamericana*, Vol. I, No. I.
- Kluckhohn, Clyde. 1973. The Conceptual Structure in Middle American Studies. In *The Maya and Their Neighbors*, pp. 41-51. New York: Cooper Square Publishers, Inc.

- Kohler, Ulrich. 1980. Cosmovision indigena e interpretacion europea en estudios mesoamericanistas. In *La Antropologia Americanista en la Actual: Homenaje a Raphael Girard* 1: 583-596.
- Koontz, Rex. 2008. Ballcourt Rites, Paradise, and the Origins of Power in Classic Veracruz. In *Pre-Columbian Landscapes of Creation and Origin*, ed. John E. Staller, pp. 11-30. New York, NY: Springer.

Kubler, George.

- 1967. The Iconography of the Art of Teotihuacan. *Studies in Pre-Columbian Art and Archaeology 4*. Washington, D.C.: Dumbarton Oaks.
- 1969. *Studies in Classic Maya Iconography*. New Haven: The Connecticut Academy of Arts and Sciences.
- 1977. Aspects of Classic Maya Rulership on Two Inscribed Vessels. Washington, D.C.: Dumbarton Oaks.
- La Farge, Oliver, and Douglas Byers. 1931. *The Year Bearer's People*. New Orleans, LA: The Department of Middle American Research, The Tulane University.
- Lathrap, Donald W. 1974. The Moist Tropics, the Arid Lands, and the Appearance of Great Art Styles in the New World. In *Art and Environment in Native America*, Special Pub. 77, ed. M. King and I. Traylor. Lubbock: Texas Tech University Museum.
- Lesure, Richard G. 2006. Animal Imagery, Cultural Unities, and Ideologies of Inequality in Early Formative Mesoamerica. In *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye, pp. 193-215. New Haven: Yale University Press.

León-Portilla, Miguel. 1980. Native Mesoamerican Spirituality: Ancient Myths,

Discourses, Stories, Doctrines, Hymns, Poems from the Aztec, Yucatec, QuicheMaya and other Sacred Traditions. New York: Paulist Press.

Lévi-Strauss, Claude. 1978. Myth and Meaning. New York: Schocken Books.

Looper, Matthew G.

2003. Lightning Warrior. Austin: University of Texas Press.

2009. *To Be Like Gods: Dance in Ancient Maya Civilization*. Austin: University of Texas Press.

López, Francisco, and Federico Fahsen. 1993. Nuevas Referencias Sobre Ceramica
Códice en Contexto Arqueológico en el Sitio de Nakbé. In *Investigaciones*Arqueológicas en Nakbé, Petén: El Resumen de la Temporada del Campo de
1993, ed. Richard D. Hansen, pp. 284-299. Proyecto PRIANPEG. Los Angeles:
The University of California.

López Portillo, José. 1982. *Quetzalcoatl in Myth, Archaeology, and Art*. New York: Continuum.

Lounsbury, Floyd G.

- 1976. A rationale for the initial date of the Temple of the Cross at Palenque, *Part III: The Proceedings of the Segunda Mesa Redonda de Palenque*. In *The Art, Iconography, and Dynastic History of Palenque*, ed. Merle Greene Robertson, pp. 211-222. Pebble Beach, CA: Robert Louis Stevenson School.
- 1985. The Identities of the Mythological Figures in the "Cross Group" of Inscriptions at Palenque. In *Fourth Palenque Round Table*, 1980, Vol. 6, ed. Elizabeth P. Benson, pp. 45-58. San Francisco: The Pre-Columbian Art Research Institute.
- 1989. A Palenque King and the Planet Jupiter. In World Archaeoastronomy: Selected Papers from the Second Oxford International Conference on Archaeoastronomy, ed. Anthony F. Aveni, pp. 246-259. Cambridge: Cambridge University Press.
- MacLeod, Barbara. 1991. Maya Genesis: The First Steps. North Austin Hieroglyphic Hunches: An Impromptu Series of Notes on Maya Epigraphy, No. 5, Tex.: Author.
- Mandelkehr, Maurice M. 2006. *The 2300 B.C. Event, Volumes 1-3*. Denver: Outskirts Press.
- Marcus, Joyce. 1989. Zapotec Chiefdoms and the Nature of Formative Religions. In *Regional Perspectives on the Olmec*, ed. R.J. Sharer and D.C. Grove, pp. 148-197. Cambridge and New York.

- Marcus, Joyce, Kent V. Flannery, and Ronald Spores. 1983. The Cultural Legacy of the Oaxacan Preceramic. In *The Cloud People: Divergent Evolution of the Zapotec and Mixtec Civilizations*, ed. Kent. V. Flannery and Joyce Marcus, pp. 36-39. New York: Cambridge University Press.
- Martin, Simon. 2001. Unmasking 'Double-Bird,' Ruler of Tikal. *The Pari Journal* 2 (1): 7-11.
- Maudslay, Alfred P. 1889-1902. *Biologia Centrali-Americana: Archaeology*, 4 Vols. London: Porter, Dulau & Co.

Mayer, Karl H.

- 1984. *Maya Monuments: Sculptures of Unknown Provenance III*. Berlin: Verlag Von Flemming.
- 1991. *Maya Monuments: Sculptures of Unknown Provenance VI, Supplement 3.*Berlin: Verlag Von Flemming.
- 1995. Maya Monuments: Sculptures of Unknown Provenance, Suppl. 4. Graz: Academic Publishers.
- Medellín Zenil, Alfonso. 1960. Motolitos Olmecas. La Palabra y el Hombre. *Revista de la Universidad Veracruzana*, XVI: 75-97.
- Mediz Bolio, Antonio. 1952. *Libro de Chilam Balam de Chumayel*. Mexico: Ediciones de la Universidad Nacional Autonoma.
- Milbrath, Susan. 1999. Star Gods of the Maya. Austin: University of Texas Press.

- Miller, Mary Ellen, and Stephen D. Houston. 1987. The Classic Maya Ballgame and its Architectural Setting: A Study of Relations between Text and Image. *RES:*Anthropology and Aesthetics 14: 46-65.
- Miller, Mary Ellen, and Karl Taube. 1993. *An Illustrated Dictionary of the Gods and Symbols of Ancient Mexico and the Maya*. London: Thames and Hudson.
- Montgomery, John. *Dictionary of Maya Hieroglyphs*. http://www.famsi.org/mayawriting/dictionary/montgomery/index.html.
- Morley, Sylvanus. 1920. *The Inscriptions at Copan*. Washington, D.C.: The Carnegie Institute.

Newsome, Elizabeth.

- 2001. *Trees of Paradise and Pillars of the World*. Austin: University of Texas Press.
- 2003. The 'Bundle' Altars of Copan: A New Perspective on Their Meaning and Archaeological Contexts. Ancient America No. 4. Barnardsville, N.C., and Washington, D.C.: Center for Ancient American Studies.
- Norman, V. Garth. 1976. *Izapa Sculpture, Part II: Text*. Papers of the New World Archaeological Foundation, No. 30. Provo: Brigham Young University.
- Ortiz, Ponciano, and Maria del Carmen Rodríguez. 2006. The Sacred Hill of El Manatí:

 A Preliminary Discussion of the Site's Ritual Paraphernalia. In *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye, pp. 75-94. New Haven: Yale University Press.

- Panofsky, Erwin. 1955. *Meaning in the Visual Arts: Papers in and on Art History*. Garden City, N.Y.: Doubleday and Co., Inc.
- Paxton, Meredith. 2001. *The Cosmos of the Yucatec Maya*. Albuquerque: University of New Mexico Press.
- Peñafiel, Antonio. 1890. Monumentos del Arte Mexicano Antiguo 1. Mexico.
- Quenon, Michel, and Geneviève Le Fort. 1997. Rebirth and Resurrection in Maize God Iconography. In *The Maya Vase Book, Volume 5*, ed. B. Kerr and J. Kerr, pp. 884-902. New York: Kerr Associates.
- Quirarte, Jacinto. 1974. Terrestial/Celestial Polymorphs as Narrative Frames in the Art of Izapa and Palenque. In *Primera Mesa Redonda de Palenque*, Part I. pp. 129-135. Pebble Beach, CA: The Robert Louis Stevenson School.
- Raab, Mark L., Matthew A. Boxt, and Katherine Bradford. 1995. Informe sobre las exploraciones arqueológicas en Bari 2 durante la temporada 1994. Manuscript on file, Archivo del Proyecto Arqueológico La Venta, Centro INAH Tabasco, Villahermosa.
- Redfield, Robert, and Alfonso R. Villa. 1939. Notes on the ethnography of Tzeltal communities of Chiapas. *Carnegie Inst.*, *Cont. Am. Anth. And Hist.* 28 (5): 105-119. Washington, D.C.
- Reese-Taylor, Kathrynn, and Rex Koontz. 2001. The Cultural Power of Poetics and Space in Mesoamerica. In *Landscape and Power in Ancient Mesoamerica*, ed. Rex Koontz, Kathrynn Reese-Taylor, and Annabeth Headrick, pp. 1-27. Boulder, CO: Westview Press.

Reilly III, F. Kent

- 1989. Enclosed Ritual Space and the Watery Underworld in Formative Period Architecture: New Observations on the Function of La Venta Complex A. In *Seventh Palenque Round Table*, 1989, Vol. 9, ed. Merle Greene Robertson and Virginia M. Fields, pp. 125-135. San Francisco: The Pre-Columbian Art Research Institute.
- 1991. Olmec Iconographic Influences on the Symbols of Maya Rulership: An Examination of Possible Sources. In *Sixth Palenque Round Table*, 1986, ed. Virginia M. Fields, pp. 151-174. Norman: University of Oklahoma Press.
- 1994. Visions to Another World: Art, Shamanism, and Political Power in Middle Formative Mesoamerica. Ph.D. diss., University of Texas at Austin.
- 1995. Art, Ritual, and Rulership in the Olmec World. In *The Olmec World:**Ritual and Rulership, ed. Michael D. Coe, pp. 27-45. Princeton: The Art Museum.

Rice, Prudence M.

- 2004. *Maya Political Science: Time, Astronomy, and the Cosmos*. Austin: University of Texas Press.
- 2007. Maya Calendar Origins. Austin: University of Texas Press.

Robicsek, Francis and Donald Hales.

- 1981. *The Maya Book of the Dead*. Norman: University of Oklahoma Press.
- 1988. A Ceramic Codex Fragment: The Sacrifice of Xbalanque. In *Maya Iconography*, ed. Elizabeth P. Benson and G.G. Griffin, pp. 260-276. Princeton, New Jersey: Princeton University Press.

- Saturno, William A., Karl A. Taube, and David Stuart, with renderings of the murals by Heather Hurst.
 - 2005. The Murals of San Bartolo, El Peten, Guatemala. Part 1: The North Wall. Ancient America No. 7. Barnardsville, N.C., and Washington, D.C.: Center for Ancient American Studies.
 - 2010. The Murals of San Bartolo, El Peten, Guatemala. Part 2: The West Wall.

 Ancient America No. 10. Barnardsville, N.C., and Washington, D.C.:

 Center for Ancient American Studies.

Schele, Linda.

- 1992. The Proceedings of the Sixteenth Maya Hieroglyphic Workshop, March 14-15, 1992, trans. and ed. Phil Wanyerka. Austin: University of Texas at Austin.
- 1995. The Olmec Mountain and Tree of Creation in Mesoamerican Cosmology. In *The Olmec World: Ritual and Rulership*, ed. Michael D. Coe, pp. 105-117. Princeton: The Art Museum, Princeton University.
- Schele, Linda, and Peter Matthews. 1998. *The Code of Kings: The Language of Seven Sacred Maya Temples and Tombs*. New York: Scribner's.
- Schele, Linda, and Mary Ellen Miller. 1986. *The Blood of Kings: Dynasty and Ritual in Maya Art*. Fort Worth: Kimbell Art Museum.
- Sharer, Robert J. 1994. *The Ancient Maya*, 5th Ed. Stanford: Stanford University Press.
- Sharer, Robert J., and Charles W. Golden. 2004. Kingship and Polity: Conceptualizing the Maya Body Politic. In *Continuities and Changes in Maya Archaeology:*Perspectives at the Millenium, ed. Charles W. Golden and Greg Borgstede, pp. 23-50. New York: Routledge.

Sherzer, Joel. 2002. Speech Play and Verbal Art. Austin: University of Texas Press.

Spitler, Susan. 2005. Colonial Mexican Calendar Wheels: Cultural Translation and the Problem of Authenticity. In *Painted Books and Indigenous Knowledge in Mesoamerica: Manuscript Studies in Honor of Mary Elizabeth Smith*, ed. Elizabeth Hill Boone, pp. 271-287. New Orleans: Middle American Research Institute.

Staller, John E. ed., 2008. *Pre-Columbian Landscapes of Creation and Origin*. New York, NY: Springer.

Stone, Andrea.

- 1993. The Cleveland Plaque: Cloudy Places of the Maya Realm. In *Eighth Palenque Round Table*, ed. Martha J. Macri and Jan McHargue, pp. 403-412. San Francisco: Pre-Columbian Art Research Institute, San Francisco.
- 1995. Images from the Underworld: Naj Tunich and the Tradition of Maya Cave
 Painting. Texas: University of Texas Press.

Stone, Andrea, and Marc Zender. 2011. *Reading Maya Art*. London: Thames and Hudson.

Stross, Brian.

- 1982. Maya Hieroglyphic Writing and Mixe-Zoquean. *Anthropological Linguistics* 24: 73-134.
- 1985. Maya Head Variant Numerals: The Olmec Case. *Anthropological Linguistics* 27: 1-45.
- 1989. Maya Bloodletting and the Number Three. *Anthropological Linguistics*, 31 (3/4): 209-226.
- 1992. Maize and Blood: Mesoamerican Symbolism on an Olmec Vase and a Maya Plate. *Res: Anthropology and Aesthetics* 22: 82-107.

Stuart, David.

- 1988. Blood Symbolism in Maya Iconography. In *Maya Iconography*, ed. Elizabeth P. Benson and G.G. Griffin, pp. 175-221. New Jersey: Princeton University Press.
- 1996. Kings of Stone: A Consideration of Stelae in Ancient Maya Ritual and Representation. *Res: Anthropology and Aesthetics* 29/30: 148–171.
- 2005. *The Inscriptions of Temple XIX at Palenque*. San Francisco: The Pre-Columbian Art Research Institute.
- 2006. Sourcebook for the 30th Maya Hieroglyphic Forum. March 14-19. Unpublished manuscript. Austin: The University of Texas.
- 2011. *The Order of Days: The Maya World and the Truth about 2012*. New York: Harmony Books.
- Stuart, David, and George Stuart. 2008. *Palenque: Eternal City of the Maya*. London: Thames and Hudson.
- Stuart, David, Stephen Houston, and John Robertson. 1999. *Recovering the Past: Classic Mayan Language and Classic Maya Gods*. Workbook for the Twenty-third Linda Schele Forum on Maya Hieroglyphic Writing. Austin: University of Texas.

Symonds, Stacey C., Ann Cyphers, and Roberto Lunagómez. 1995. *Asentamiento prehispánico en San Lorenzo Tenochtitlán*. Mexico City: Universidad Nacional Autonoma de México.

Taube, Karl A.

- 1985. The Classic Maya Maize God: A Reappraisal. In *Fifth Palenque Round Table*, 1983, Vol. 7, ed. Merle Greene Robertson and Virginia Fields, pp. 171-181. San Francisco: Pre-Columbian Art Research Institute.
- 1995. The Rainmakers: The Olmec and their Contribution to MesoamericanBelief and Ritual. In *The Olmec World: Ritual and Rulership*, ed. MichaelD. Coe, pp. 83-103. Princeton: The Art Museum.
- 1996. The Olmec Maize God: The Face of Corn in Formative Mesoamerica.

 *Res: Anthropology and Aesthetics 29/30: 39–81.
- 1998. The Jade Hearth: Centrality, Rulership, and the Classic Maya Temple. In *Function and Meaning in Classic Maya Architecture*, ed. Stephen D. Houston, pp. 427-478. Washington, D.C.: Dumbarton Oaks.
- 2004. *Olmec Art at Dumbarton Oaks*. Washington, D.C.: Trustees for Harvard University.

Tedlock, Dennis.

- 1983. *The Spoken Word and the Work of Interpretation*. Philadelphia: University of Pennsylvania Press.
- 1985. *Popol Vuh: The Mayan Book of the Dawn of Life*. New York: Simon and Schuster.

Thompson, J. Eric S.

- 1950. Maya Hieroglyphic Writing. Washington, D.C.: Carnegie Institute.
- 1963. *Maya Archaeologist*. Norman: University of Oklahoma Press.

- Tokovinine, Alexandre.
 - 2002. Divine Patrons of the Maya Ballgame. http://www.mesoweb.com/features/tokovinine/Ballgame.pdf.
 - n.d. The Royal Ball Game of the Ancient Maya: An Epigrapher's View. http://www.mayavase.com/alex/alexballgame.html.
- Tokovinine, Alexandre, and Wilma Fialko. 2007. Stela 45 of Naranjo and the Early Classic Lords of Sa'al. *The PARI Journal* 7 (4): 1-14.

Tozzer, Alfred M.

- 1907. A Comparative Study of the Mayas and Lacandones. New York: MacMillan Press.
- 1941. *Landa's Relación de Las Cosas de Yucatan: A Translation*. Cambridge: The Museum.
- Trigger, Bruce. 1996. *A History of Archaeological Thought*, Second Edition. New York: Cambridge University Press.
- Trik, Aubrey S. 1963. The Splendid Tomb of Temple I at Tikal, Guatemala. *Expedition* 6 (1): 2-18.
- Velásquez-García, Erik. 2006. The Maya Flood Myth and the Decapitation of the Cosmic Caiman. *The PARI Journal* 7 (1): 1-10.
- Villa Rojas, Alfonso. 1986. Los conceptos de espacio y tiempo entre los grupos mayas contemporaneos. In *Tiempo y Realidad en el Pensamiento Maya*, compiled by Miguel León Portilla, pp. 119-167. Mexico City: Universidad Nacional Autónoma de México.

- Vogt, Evon Z. 1964. *Desarrollo Cultural de los Mayas*. Ed. Evon Z. Vogt and Alberto Ruz L. Mexico: Universidad Nacional Autónoma de México, Facultad de Filosofía y Letras: Seminario de Cultura Maya.
- Von Euw, Eric. 1977. *The Corpus of Maya Hieroglyphic Inscriptions: Itzimte'*, *Pixoy*, *Tzum*. Vol. 4, Pt. 1. Cambridge: Peabody Museum, Harvard University Press.
- Watanabe, John. 1983. In the World of the Sun: A Cognitive Model of Mayan Cosmology. *Man* 18: 710-728.

VITA

David Matthew Schaefer grew up in San Diego, California, graduated from Valhalla High School in 1992, and completed undergraduate work at the University of California, Santa Barbara, in 1996. He earned a teaching credential from San Diego State University in 2000 and taught at the international schools L.I.F.E. and A.M.A. in the Guatemalan Highlands while doing seasonal guidework for the experiential education program, Where There Be Dragons. He entered the Graduate School at the University of Texas at Austin in the Fall of 2009. For correspondence with the author, please write: dmschaefer@hotmail.com

This Thesis was typed by the author.