University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Anthropology Department Theses and Dissertations

Anthropology, Department of

Fall 12-5-2020

When Leaders Surrender Their Divine Lineage: The Loss of Cosmic Connection Between Maya Local Lords and Their Supernatural Deities

Amy S. Peterson

University of Nebraska-Lincoln, amy.peterson@huskers.unl.edu

Follow this and additional works at: https://digitalcommons.unl.edu/anthrotheses

Part of the Cultural History Commons, Latin American History Commons, and the Social and Cultural Anthropology Commons

Peterson, Amy S., "When Leaders Surrender Their Divine Lineage: The Loss of Cosmic Connection Between Maya Local Lords and Their Supernatural Deities" (2020). *Anthropology Department Theses and Dissertations*. 64.

https://digitalcommons.unl.edu/anthrotheses/64

This Article is brought to you for free and open access by the Anthropology, Department of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Anthropology Department Theses and Dissertations by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

WHEN LEADERS SURRENDER THEIR DIVINE LINEAGE: THE LOSS OF COSMIC CONNECTION BETWEEN MAYA LOCAL LORDS AND THEIR SUPERNATURAL DEITIES

by

Amy Sue Peterson

A THESIS

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Master of Arts

Major: Anthropology

Under the Supervision of Professor Heather Richards-Rissetto

Lincoln, Nebraska

December, 2020

WHEN LEADERS SURRENDER THEIR DIVINE LINEAGE: THE LOSS OF COSMIC CONNECTION BETWEEN MAYA LOCAL LORDS AND THEIR SUPERNATURAL DEITIES

Amy Sue Peterson, M.A.
University of Nebraska, 2020

Advisor: Heather Richards-Rissetto

The Maya who lived during the Classic Period (200 CE to 900 CE) went through many changes in their daily lives. In the Late Classic Period (600 to 900 CE), social, political and economic stressors caused even more change to their routines, leading to the "collapse" around 800-900 CE. Current hypotheses for this collapse included warfare, environmental factors, human degradation of landscapes, as well as internal and external influences. I hypothesize that in the Early Classic (200 to 600 CE), rulership of local communities by Maya lords, or *ajawob*, related mainly to their connection to a pantheon of supernatural deities, which led to the *ajawob* being considered as divine beings. However, this divinity changed over time as the *ajawob* went from performing rituals and duties on behalf of the people to seeking to increase their power, not through a connection to deities but rather through connections to deeply established, powerful lineages. To examine this hypothesis, I use geospatial analysis to trace *ajaw* names through time in order to indentify changes in use of terms, titles and names based on location. Additionally, I delve into terms used during the Classic period in the hieroglyphic records, specifically how the terms k'uhul ixik and k'uhul ajaw—terms that were applied only after death—went out of vogue in exchange for k'ujul (location) ajaw, a title that was self-applied in almost every application.

ACKNOWLEDGEMENTS

I would first like to thank my thesis advisor Dr. Heather Richards-Rissetto of the School of Global Integrative Studies at the University of Nebraska. Professor Richards-Rissetto was always available—whether –in person, by email or by Zoom—whenever I ran into a trouble spot or had a question about my research or writing. She consistently allowed this paper to be my own work but steered me in the right the direction wherever necessary.

I would also like to acknowledge Professor LuAnn Wandsnider, also of the School of Global Integrative Studies and Professor Wayne Babchuk of the College of Education and Human Sciences, not only as readers of this thesis, but in their capacities as professors that I had the opportunity to learn from, and I am gratefully indebted to their very valuable comments on this thesis.

Finally, I must express my very profound gratitude to my parents and to my family and friends for providing me with unfailing support and continuous encouragement throughout my years of study and through the process of researching and writing this thesis. This accomplishment would not have been possible without them. Thank you.

In addition to earning this degree, I also earned a Certificate in Digital Humanities. As part of that, I learned how to use ArcGIS' Story Maps application. I used Story Maps for my defense presentation; here is a link to it: https://arcg.is/Payqa

Table of Contents ACKNOWLEDGEMENTS	iii
List of Figures	
List of Tables	vii
List of Maps	vii
Terms and Definitions	viii
CHAPTER 1: INTRODUCTION	10
CHAPTER 2 LITERATURE REVIEW	15
Popular Beliefs about the Maya	15
Olmec and Other Influences on the Early Maya	16
Maya Socio-Religious Beliefs	16
Maya Cosmology	19
Maya Leadership	20
Potential Causes of the Southern Maya Lowlands 'Collapse'	22
CHAPTER 3 METHODS	24
CHAPTER 4 RESULTS	26
Chaak	29
Itzamnaaj	31
K'awiil	33
K'inich	35
Other Names	39
K'uhul and K'alomte	43
K'uhul Ixik	44
K'uhul Ajawob	46
K'uhul (Location) Ajaw	47
CHAPTER 5 DISCUSSION	50

CHAPTER 6 CONCLUSION	55
REFERENCES	57

List of Figures
Figure 1-1: Yaxchilan Lintel 24
Figure 2-1: Piedras Negras Stela 3
Figure 2-2: Calakmul Lintel 51
Figure 2-3: Yaxchilan Lintel 25
Figure 4-1: Chaak, the rain deity
Figure 4-2: Hieroglyphic rendering of Chak Bolon Chaak
Figure 4-3: Architectural Representations of Chaak
Figure 4-4: Itzamnaaj from the Dresden Codex
Figure 4-5: Itzamnaaj Bahlam I, as represented by two logograms
Figure 4-6: Hieroglyphs for Itzamnaaj Bahlam III
Figure 4-7: A K'awiil Scepter
Figure 4-8: Detail of Yaxchilan Lintel 53
Figure 4-9: Hieroglyphic representation of Wak Chan K'awiil
Figure 4-10: K'inich on a Late Classic vase
Figure 4-11: Hieroglyphs for Tum Yohl K'inich and K'inich Joy K'awiil
Figure 4-12: Yax Pasaj Chan Yopaat in hieroglyphs
Figure 5-1: Timespan Comparison

List of Tables Table 4-1: Name Usage	26
Table 4-1. Name Usage	20
Table 4-2: Ukit Kan Le'k Tok's Dated Monuments and Titles	44
Table 4-3: Uses of "k'uhul ixik	45
Table 4-4: K'ujul Ajaw entries	47
Table 4-5: K'uhul (Location) Ajawob	48
List of Maps	
Map 4-1:Sites used for research	28
Map 4-2: Chaak Locations	31
Map 4-3: Itzamnaaj Locations	33
Map 4-4: K'awiil Locations	35
Map 4-5: K'inich – Prefix distribution	37
Map 4-6: K'inich – Suffix distribution	38
Map 4-7: Distribution of Other Names part 1	40
Map 4-8: Distribution of Other Names part 2	41
Map 4-9: Unknown Names	42
Map 4-10: K'uhul Ixik locations	46
Map 4-11: K'uhul (Location) Ajawob with K'uhul Ajawob inset	49

Note: Maps throughout this thesis were created using ArcGIS® software by ESRI. ArcGIS® and ArcMapTM are the intellectual property of Esri and are used herein under license. Copyright © ESRI. All rights reserved. For more information about ESRI® software, please visit www.esri.com.

Terms and Definitions

In this work, I use the standard naming practices, which use the following naming and style conventions:

'Maya' is the proper adjective when discussing culture, people, and objects. The only time 'Mayan' is used is when discussing languages; for example, 'the Yucatec Mayan language'.

When using a transliteration, or the literally meaning of a hieroglyph, I will:

- Use all lower-case letters and hyphens for syllabograms, e.g., ba-la-m(a)
- Use all upper-case letters for logograms, e.g., BAHLAM

When using a translation of the transliteration, the word(s) will be italicized, i.e., bahlam, and its use in a sentence will always have single quotes, as in: "This hieroglyph reads as 'bahlam' or 'jaguar'". Sometimes, there will be a combination of both syllabogram(s) and logogram(s). However, proper names will not be italicized, such as K'inich Bahlam.

Because there are so many sources for this work, and many have their own variation of spelling certain words, I will use the modern spelling of most words, unless it is a direct quote. This includes place names; previous spellings of locations such as Copán or Yucatán, with the Spanish inflection on the final vowel are no longer used, but instead, they will be Copan and Yucatan, since the Maya did not (and do not) use such inflections. Specific examples include the four supernatural gods at the root of this thesis, where the apostrophes in K'inich and K'awiil represent glottal stops, and I will use the first example listed for each:

- The Earth Monster can be spelled: Itzamnaaj, Itzamnaj, Itzamnaj, Itzamnah, or Itzamna
- The Rain God can be spelled: Chaak or Chak
- The Sun God can be spelled: K'inich, Kinich, or K'in
- The Lightning God can be spelled: K'awiil or K'awil

Other differences may be in the spelling of numbers or names, depending on their location and the local language. There are over forty different Mayan languages in use today, each with their own syntax. This can be seen especially in numbers, such as using 'ua' and 'wa' interchangeably. For example, it is either 'waxac' or 'uaxac', which translates to 'eight', and they both sound the same—"wah-shahk".

Pronunciations

Vowels:

- A sounds like "ah", as in "father", as in 'bahlam'
- E sounds like "ey" as in "obey", as in "te" ("mother" in Kaqchikel Mayan)
- I sounds like "ih" as in "kick" or the "e" sound in "piece", as in "Chichen Itza"
- O sounds like "oh" as in "toe", as in "bolon" (9 in Yucatec Mayan)

• U sounds like "oo" as in "goo", or "Uxmal"; but "Uaxactun" is a combo sound, u and a make a wah sound

Consonants and Glottal Stops:

- B is pronounced like "buh", like in "baby", or "Bolonchen"; but B' is the sound "buh" cut off at the "b" sound, as in 'ak'ab'al', which has to do with darkness.
- J is an "h" sound, like it is in Spanish; 'jo' is pronounced like "hoe" and translates as the number 5.
- K is pronounced like "kay", like in "kite", or in "Kukulkan"; but K' (and the same sounding Ch') is a hard, cut off 'k', pronounced in the back of the throat, and is a sound, not a letter. Examples in Maya include K'inich, the Sun god, or K'awiil, the god of lightning.
- X is a "sh" sound, so Uxmal is pronounced "oosh-mahl", but in the word Oaxaca, it is an h sound, and it is not Maya.
- There are no c, d, f, g, q, r, v or z in the hieroglyphs, but they do exist in place names.

CHAPTER 1: INTRODUCTION

The Maya of the Pre-Columbian era-those who lived from 250 BCE to 1000 CE during the Classic (250 CE to 900 CE) and Post-Classic (900 to 1520 CE) eras-led a diverse and rich lifestyle. Each community was led by an *ajaw* or "lord", who came from the noble class and led his community by conducting rituals to keep balance in the cosmos, which in turn kept out chaos. The overall concept of the office or position of ajaw has been in existence since the Late Preclassic (400 BCE to 250 CE) and Early Classic periods (250 to 600 CE), according to the hieroglyphs discovered on the walls of Las Pinturas structure at San Bartolo (Martin and Grube 2008, 8-9; Saturno, Stuart and Beltran 2006, 1282). A large number of *ajawob* (the plural of *ajaw*) took on the names of supernatural deities to show their respect and connection to those deities. As time progressed, the local *ajawob* turned away from the deities, and chose other names, using the names of animals and colors instead of deity. This was done in part because they were losing their socioreligious beliefs and changed how they conducted business as an ajaw (Martin and Grube 2008). The other part was because they were being forced—either internally or externally-to cooperate with outside forces and practices (Just 2007; Martin and Grube 2008).

In this thesis, I address the following questions: Who were the deities that the *ajawob* connected with? What roles do the deities play within the culture throughout the Classic Period? What, if any changes in the connections between deities and the *ajawob* are reflected in the hieroglyphs of the Maya, and what might these changes tell us about changing circumstances in ancient Maya society throughout the Late Classic? To do this, I collected the names and dates of almost 300 *ajawob*, as well as texts from related monuments. I also used geospatial analysis to track *ajaw* names through time, marking

changes in use of terms, titles and names. I also delved into terms used during the Classic period in the hieroglyphic records, specifically how the terms *k'uhul ixik* and *k'uhul ajaw* were in use for a brief time, as the *k'ujul* (location) *ajaw* title came into focus, one that was self-applied in almost every application

"Collapse" is not just a Maya phenomenon; it also happened to civilizations across the world, throughout time. Archaeologists seek to comprehend the contributing factors in the decline, and often the downfall, of a civilization. For the Maya, it is generally believed that the collapse began in the Late Classic period, beginning in the 9th century. Droughts, too many wars, lack of resources—including manpower and natural resources, external influences from other communities, as well as the differences in landscape across the Maya Lowlands are all thought to be causes in the failure—but not complete demise—of the Southern Lowland Maya (Aimers 2007; Brenner, Hodell, Rosenmeier, et al. 2004; Cowgill 1964; Douglas, Demerest, Brenner, et al. 2016; Sabloff and Willey 1967).

The elite class, where the *ajawob* came from, enjoyed a separate gender function. Not only were they responsible for their own gendered responsibilities, but they also possessed aspects of both genders, as their power comes from this combined self (Joyce 1996, 175-176). For the *ajawob*, their duties included the conducting of rituals, deciding the fate of prisoners, and celebrating certain anniversaries such as a *katun* (20-year period) ending. In order to perform these rituals, the local *ajaw* demonstrated their divine connection by bloodletting and other rituals. Such rituals and functions were replicated in the artwork of the noble scribes, who created propaganda as the 'official record' of the *ajaw* on stelae, lintels, panels and other works. as seen in the Classic Period (250 to 800

CE) Yaxchilan's Lintel 24 (found at the British Museum), seen in Figure 1-1, where the local *ajaw*, Shield Jaguar and his wife, Lady K'ab'al Xook are depicted in midperformance of such duties. It shows Shield Jaguar holding a lantern, lighting his wife's task of pulling a barbed rope through her tongue for the bloodletting ritual. These acts reinforced their connections to deities to convince people of their power and authority (Bassie 2002; Martin 2019). Additionally, leaders were insistent that they were appointed by the deities to rule and thus had the ability to perform divine acts. This mystery of the divine, of divinity, gives one 'worldly authority', that people could not deny (Houston and Stuart 1996, 289-312).



Figure 1-1: Yaxchilan Lintel 24 at the British Museum (Photo: Peterson 2014)

While the communities were becoming more complex and cohesive units under the *ajawob* during the Late Preclassic period—writing and the arts continued to develop, buildings constructed, governmental hierarchy installed, trade conducted—all signs of true civilization—the *ajawob* began to modify their beliefs about themselves and their required tasks (Martin and Grube 2008, 8-9). They did not create these facets of civilization on

their own. It was once believed that the Maya adapted most of their ideals from the Olmec, who lived in the Gulf Coast area from 2000 to 1000 BCE (Carrasco 2008; Martin and Grube 2008, 8). Written text, the creation of stelae that represent and celebrate the *ajaw*, bloodletting and the innate idea of rulership, are all concepts borrowed from the Olmec (Taube 2004, 46). However, recent scholarship has shown that the Maya existed in the area from around 1250 to 1050 BCE (Inomata 2020, 2). It is obvious that while the Olmec were not quite the direct influence as previously believed, the Maya took what they learned and created their own ideals of what leadership meant (Inomata, et al. 2013, 468).

I hypothesize that there was a collapse within the *ajawob*—both the people and the position—that contributed to many of the other collapses of Late Classic Maya society. My original hypothesis was that the usage of supernatural lords' names would be far greater than any other name during the Classic Period and would fade away completely by the beginning of the Post Classic Period. If your community (and the communities surround it) has a socioreligious belief system that requires obeisance to deities, use of their names would have been seen as another connection or link to those deities. This particular collapse occurred over time as the *ajawob* were influenced by internal and external forces that caused the change in how they accomplished their roles. I contend that the *ajawob* shifted from deity-worshipping, divinely inspired leaders who played a part in their community's wellbeing, into autocrats who were more concerned about titles and one-upping other leaders while projecting propaganda about their accomplishments (Marcus 1992, 11; Martin and Grube 2008, 18-19). I investigate this contention by collating hieroglyphic data from monuments and identifying changes in terms over time that detail this change from supplicant to vainglorious overseer, or at leat leaders who linked their power, less to deities and rather to other sources, such as

powerful lineages and those successful in warfare. It is the major contention of this thesis to show that the Maya *ajawob* modified their original ideals, not in pursuit of godly concerns or fear of being chastised by those with whom they had a cosmic connection, but rather that those ideals were modified by more human concerns, such as wealth, titles and power. I contend that it is in the pursuit of *those* ideals that the cosmic connections withered and perhaps eventually were lost altogether, and so it was, ultimately, the *ajawob* that greatly contributed to the overarching chaos that caused the Southern Lowland Maya to collapse, leading to alternative political strategies in the Post Classic.

In Chapter 2, I provide a literature review that sets the stage for the discussion about the Maya *ajawob* and changes made to their position over time. This includes the popular beliefs about the Maya, Maya Cosmology and Leadership, and current theories on the Maya Collapse.

In Chapter 3 I discuss the methods used to collect and analyze my data by use of research methods, Geographic Information Systems (GIS), and my hypothesis about the term *k'uhul*.

In Chapter 4, I discuss and display the results of my research, using several maps, tables and photographic evidence.

In Chapter 5, I discuss the summary and interpretations of my findings.

Finally, in Chapter 6, I conclude my research and discuss how it contributes to the field of Maya archaeology.

CHAPTER 2 LITERATURE REVIEW

Popular Beliefs about the Maya

The Maya have a mystique about them that leads to questions about their culture, rituals, and way of life, in order to have a better understanding of them and their history. Ask anyone what they know about the Maya, and the response will probably be related to archaeological sites, sacrificial victims, or a reference to the highly inaccurate movie Apocalypto. Even the movie reviewer from Mexico mistook popular belief for history, when he stated that the reason the movie is inaccurate was because the Mayans [sic] were gone when the Spanish arrived in Mexico in the 16th century (Valero 2010). If this was true, then who held off the Spaniards in the city of Tiho (Spanish and modern name: Mérida) in the Yucatan for eleven years, from 1529 to 1540? (Clendinnen 1987, 26). The Kaqchikel Maya of Guatemala have been in existence since 1250 CE. This fits with the Postclassic time period of the Maya in Mexico, which lasted from approximately 909 to 1670 CE (Martin and Grube 2008, 9; Maxwell and Hill 2006, 3). Sanchez y Leon claimed that there were at least thirty independent native states in Guatemala in the 18th century (1797, 1). The Maya have never gone completely extinct, contrary to Valero's statement in his movie review (2010). Today, there are over six million Maya in Mexico and Central America, separated by their 35 to 40 distinct Mayan languages, including Yucatec, Kaqchikel, Quiche and others, yet with similar cultural practices (Campbell 2000).

What must be known is that the Pre-Columbian Maya comprised a complex society. They had maintained a governmental and social hierarchy for almost two thousand years before the arrival of the Spanish, with a religion that infused their daily lives, had written and spoken languages, possessed a knowledge of zero within their

vigesimal (base 20) numbering system, and traded amongst themselves and with their non-Maya neighbors (Demarest and Demarest 2004, 49-52).

Olmec and Other Influences on the Early Maya

The Maya did not just create their religion, their supernatural gods, nor all of their rituals. They borrowed heavily from those who came before, such as the Olmec, and those who co-existed with them, such as the people from Teotihuacan. This can be seen in their use of the pantheon of supernatural gods, which Schellhas identified in 1904. He named each god with an alphabetical identifier, but further research proved that they have names, so that the gods are identified as Schellhas' God B is Chaak, God D is Itzamnaaj, God G is K'inich and God K is now known as K'awiil. These four have been designated for this study because they appear quite frequently in the names of the lords identified in the research. Some *ajawob* used multiple gods' names, such as Itzamnaaj K'awiil from Dos Pilas, who came to power in 698 CE (Martin and Grube 2008, 58). Not all ajawob used these supernatural names, but chose names of animals instead, such as the four lords of Yaxchilan who served at different points from 378 to 768 CE, known as Bird Jaguar, which translates to K'uk Bahlam in Yucatec Mayan (118-128). Additionally, there are a few ajawob whose service is known by their records, but their names have been obliterated by opponents, weather, or looters. These have been given different designations, such as "Ruler A", "Ruler B" and "Ruler C" of Piedras Negras from 450 to 549 CE (Sharer and Traxler 2006, 422-423).

Maya Socio-Religious Beliefs

The Maya practiced their socio-religious beliefs every day, from the women making tortillas to the men participating in battles. By completing their tasks, they were fighting the larger battle to maintain balance in their world in order to keep out chaos.

(Gillespie and Joyce, 1997, 189-191). Such 'gender complementarity' is a means of enacting the interdependence between the roles of male and females "in separate but mutually supportive spheres of activity," and their value in different contexts within the community (Stockett 2005, 568). The reason for distinct tasks was not just to separate the genders, but also others such as for example, the nobles to follow the path of the Hero Twins, Junahpu and Xbalanque. According to the *Popul Vuh*, the K'iché Maya creation myth, these twin brothers were the first to traverse the sacred path from earth to Xibalba (the underworld) and back to earth to become regenerated (Carrasco 1990, 99). This path is replicated by all *ajawob*—even the few women, or ixik *ajawob*—as they continued this path to rise above the horizon to become the Sun, passing amongst the heavens, and giving one the feeling of regeneration, not just for themselves, but for their community as well (100).

Epigraphic evidence demonstrates that over time, the *ajawob* wanted to be more than just local leaders; they projected images of themselves in stone objects such as stelae, doorway lintels and wall panels, as seen in Figure 1-1. Women were occasionally featured on the monuments, usually as either the mother or wife of the *ajaw* or the *ixik ajaw* (*ixik* = female indicator) herself. Such powerful women commissioned their own monuments, such as Figure 1-2, Piedras Negras Stela 3, which is unusual for its depiction of not only a female leader, but also a daughter. The text tells the story of how Lady

K'atun was born, married her husband, K'inich Yo'nal Ahk, and had their daughter, Ix Juun Tahn Ahk, or 'Lady Precious Turtle' (Pitts 2011, 85-89).



Figure 2-1: Piedras Negras Stela 3 (Montgomery 2000)

Rituals have been ingrained throughout the ages, so it should not be surprising that leaders tend to use them for political affluence (Leach 1966; Lucero, Aoyama, Cyphers, et al. 2003, 523). Rituals can include combinations of social, religious, political and economic systems, and can be public or private (Emery 2004, 101). However, the *ajawob* changed the meaning and context of their position from that of a divine, respected leader to one of power and position, as can be seen on the monuments of the late 7th and early 8th centuries. This gradual shift came as other societal features were collapsing, and can be seen in the stelae of the central Peten in Guatemala and the neighboring areas of Campeche in Mexico, and Belize, as seen in Figures 1-1 and 1-3, which is Calakmul

Lintel 51, which features Yuknoom Took' K'awiil (Martin, Houston and Zender 2015). Both were built between 723 and 731 CE, directly in the middle of the Late Classic period. As opposed to Figure 1-1, there are no divine acts in Figure 1-3; Yuknoom Took' K'awiil is holding the K'awiil scepter, which represents power, not the deity (this will be discussed in Chapter 3). In Figure 1-3, one can only view self-promotion and an excitable set of curls displayed on his head, as if a "sycophantic nod to royal vanity" (Houston 2017).



Figure 2-2: Calakmul Lintel 51 (Proskouriakoff 1950, 128)

Maya Cosmology

Religion was integral to the Precolumbian Maya, affecting every aspect of daily life, where they considered even natural objects like caves, trees and rivers as possessing a life force that requires respect and care (Houston 1999, 43). They believed in supernatural deities who were in charge of different natural resources, such as rain, earth,

and death, and the moon (Taube 1992). In fact, Aveni suggested that the deities may have been actors whose job it was to personify natural forces (1997, 97). These deities were honored in rituals conducted cyclically, for example, monthly, yearly, or at major period endings such as every five or ten years, including events such as conjuring rituals, ceremonies, dance events, royal births, or the erection of a monument (Knub, Thun and Helmke 2009, 187). Certain rituals required the space for their performance, and were held at specific locations, such as temples built just for worshipping, or outside in the plaza, in front of stelae or other monuments (Houston 1999, 43-44; Knub, Thun and Helmke 2009, 187-188). The Maya also believed that by following the examples of the deities—and thus, their *ajaw*—who were immersed with the same divinity in their office as the deities themselves and were divinely placed on earth to serve as intercessors to those deities—then everyone had a responsibility to follow the rule of the *ajaw* to maintain balance within their community in order to keep out chaos (O'Connor and Silverman 1995, xxv; Stockett 2005, 568).

Maya Leadership

As part of the religious and social expectations, the local *ajaw* was responsible for conducting rituals such as bloodletting, to demonstrate their deference to the deities, and could be seen by the local population as completing their responsibilities in order to maintain balance not only in the community, but the cosmos as well. Authority over others was sanctioned through the power and mystery of being divine, of being connected to deities (Houston and Stuart 1996, 289). That divinity can be seen in an *ajaw* by possessing certain objects, such as the K'awiil scepter, while the *ajaw* achieved that status by calling on and appropriating the power from the deities, and fulfilled the main

role of an *ajaw* by transmitting communications from the deities to his subjects (Houston and Stuart 1996, 290; Just 2007, 13).

An *ajaw* was not elected to office; rather, they belonged to the elite stratum within the local hierarchy of craftsmen, scribes, farmers, serfs and slaves. High societal rank was not limited to the ruling family; instead, royal lineages were formed from a collection of elite families (Hendon 1991, 913; Kan 1989: 83-101). Those who became *ajawob* may have had certain qualities about them that made them more able to do the job than others, including a stronger sense of socioreligious divination, or the ability to bless and sanctify people and objects (Houston and Stuart 1996, 295). Along with this power, the *ajawob* were able to impersonate deities by assuming their identities, seen as another part of the individual *ajaw*'s personality (297). In this instance, the *ajaw* may have been seen as that deity participating in the ritual, rather than the *ajaw* themselves (300). These deities were to be appeased with offerings made at rituals, such as bloodletting, *k'atun* (20-year period) endings, and the 'planting' of a stela; the appeasing was completed by the *ajaw*, thereby justifying and reinforcing the *ajaw*'s position of power (Sharer and Traxler 2006, 91 and 149).

Bloodletting was important because it was considered a central element in the creation of the world and humans (Haines, Willink, and Maxwell 2008, 83-84; Miller and Taube 1993; Taube 1993). Examples included communication with ancestors, agricultural ceremonies, and symbolic acts of procreation (Munson, et. al. 2014, e107982). By meeting this requirement, an *ajaw* was able to complete the compact by supplying the required offering, which allowed the conduit between the human and supernatural worlds to open (Haines, Willink, and Maxwell 2008, 83). Bloodletting by

an *ajaw*—either male or female (known as an *ix ajaw*)— is demonstrated in the carved stone panels from Yaxchilan. This is seen in Figure 1-1 and Figure 2-1, dated to 723 CE, demonstrates the results of bloodletting; in this case, Lady K'abal Xook is experiencing a vision after the bloodletting process. In her outstretched hand, a spiny tool which was the bloodletting instrument, can be seen (Corpus of Maya Hieroglyphic Inscriptions).



Figure 2-3: Yaxchilan Lintel 25 at the British Museum (photo: Peterson 2014)

Potential Causes of the Southern Maya Lowlands 'Collapse'

Since the 1950s, anthropologists and others have tried to explain why the Southern Maya Lowlands faded away, or, to use the more popular term, 'collapsed', beginning in the 9th century. 'Collapse' is in quotes because it does not mean a complete failure and loss of the Maya, but a massive loss of population in a region along with a stoppage of elite functionality (Adams 1971, 22; Andrews, Andrews and Castellanos 2003, 151). The differentiation between Southern and Northern Lowlands is noteworthy, because while the Maya in the Southern Lowlands were experiencing the collapse, those in the Northern area were in fact experiencing growth spurts and changes in elite

procedures (Andrews, Andrews and Castellanos 2003, 151-154). This fluctuation did not last long, however.

Prior to the 1960s, Mesoamerican cultures (not just Maya) were believed to have been extremely theocratic, by having been led by priests, not kings (Webster 2002, 22). Wilk discussed his assertion that various solutions to the Maya collapse had to do with current political or environmental conditions. His examples included the fact that the first attempt to "explain Maya prehistory in a systematic manner" was Cowgill's 1964 paper (Wilk 1985, 313). This was also at the same time that Adams (1971) wrote about ceramic evidence that demonstrated proof of foreign invasion (Wilk 2002, 315). Meanwhile, Webster proposed several options for the collapse, include internal and external wars, natural disasters, disease, and degradation of agriculture (223-251). Wilk did not believe that it was a coincidence that these theories arose while America was involved with the Gulf of Tonkin Resolution. He noted a rise in the number of papers that decided warfare was a major factor in Classic Maya history, including invasions by imperialist forces, which became accepted as part of Maya history by 1967, which was also when the U. S. troop strength in Viet Nam reached half a million (Sabloff and Willey 1985, 313). I believe Wilk's theory has merit, as it can be seen in the 21st century, as the ideals of climate change have filtered through to the current suppositions for the Maya collapse (Brenner, Hodell, Rosenmeier, et. al., 2001; Douglas, Demarest, Brenner, and Canuto 2016; Gunn, Matheny, and Folan 2002; Hodell, Curtis, and Brenner 1995; Kennett, Breitenbach, Aquino, et. al., 2012; and Shaw 2003).

CHAPTER 3 METHODS

My original idea for this thesis came about when I wanted to discover what locations in Mesoamerica had leaders that carried the deity names. This was for a project assigned in an ESRI GIS for Archaeology class, where we were required to use different features within ArcGIS 10.7 to map a collection of sites and to complete different analyses of those sites. How many had one or more of each name? Were there specific areas that used one name more than another? Was there a pattern in name usage over time? When and where did the deity names fade away, and the other names such as animal or color names come into play? I originally believed I could map those areas with local lords who used the four supernatural gods' names for their own names, and the decline in that use as they began to use the names of animals instead. I also believed that the use of deity names should cover a wider area, with *ajawob* using their names more often than any other names.

To accomplish this, I collected the names of sites, their list of lords and when they ruled. I accumulated 297 lords' names at 43 sites from Belize, Mexico, Guatemala, and Honduras, and all are maintained in Microsoft Access. I used ArcGIS and ArcGIS Online to create maps for the locations and associated data for visual analysis. Each *ajaw* was discovered through researching articles, books and websites. A large amount of information was discovered in the journal *Mexicon*, which has reports on different sites, mainly in Campeche and the Yucatan. Multiple printed volumes of *The Corpus of Maya Hieroglyphic Inscriptions* served as a starting point for determining which sites to look at, based solely on the condition and readability of the stelae and other artwork found in *The Corpus*. There is an online version of the *Corpus*, which sometimes has the translations for the stelae, provided by Harvard University through the Peabody Museum.

Using Microsoft Excel, I created timelines for each of those 43 sites, indicating when each lord served. Ultimately, I ended up needing to select 64 records from 605 records, so I ran an =Random() function to assign a random number to those 605 records. I then sorted them in ascending order and used the first 64 records for my sample. These were part of the 799 total *k'uhul* records that came from Matthew Looper at the California State University, Chico, who is a co-creator of and maintains the Maya Hieroglyphic Database (MHD). He provided me with a list of over 300 references for those four gods' names found on various monuments and other objects, as well as information on specific stelae for Quirigua.

CHAPTER 4 RESULTS

The names used by the 297 identified *ajawob*—whether deity-, animal- other or unknown—and their sites are seen in Table 4-1.

Table 4-1: Name Usage

Site Name*1	Number of Lords' Names Containing:						Site Total
	Chaak	Itzamnaaj	K'awiil	K'inich	Other	Unknown	
Acté, GT			1		2		3
Aguateca, GT				1		3	4
Altun Ha, BZ	1			1			2
Calakmul, MX			5		13		18
Caracol, BZ	1			7	4	2	15
Ceibal, GT					1		1
Copan, HN			4	3	7	4	18
Dos Pilas, GT		2	3	2		1	8
Edzna, MX	2		3	2	6		13
Ek' Balam, MX				1	3		4
El Peru-Waka, GT				2	9		11
Hix Witz, GT			1		4		5
Huacatel, MX				1			1
Ixkun			1		1		2
Ixtutz					1		1
Ka'kabish, BZ			1				1
K'an Hix, BZ			1	1	1		3
La Corona, GT				1	1		2
La Mar, MX	1						1
Lamanai, BZ					1		1
Machaquila, GT	6			2	6		14

¹ Country Abbreviations: BZ = Belize; GT = Guatemala; HN = Honduras; MX = Mexico

Site Name*1	Number of Lords' Names Containing:						Site Total
	Chaak	Itzamnaaj	K'awiil	K'inich	Other	Unknown	
Mayapan, MX					1		1
Motul de San Jose, GT			1	6	3		10
Naranjo, GT	5	1	3	2	3	4	18
Oxpemul, MX	2		1	3	4	1	11
Pakbitun, BZ	1						1
Palenque, MX				5	12		17
Piedras Negras, GT	1	1		4	2	4	12
Pomona, MX			1				1
Pomoy, MX			1				1
Pusilha, BZ			1	1			2
Quirigua, GT				1	4	3	8
Sabana Piletas, BZ				1	2		3
Sak Tz'i'				1	2		3
Sakul					1		1
Tamarindito, GT	1			4	6	2	13
Tikal, GT	3		7	5	10	1	26
Tonina, MX	2	1		7	7	5	22
Uaxactun, GT						1	1
Ucanal, GT	1	1			1		3
Unknown	1						1
Uxmal, MX	1						1
Uxul, MX	1				1	1	3
Xultun, GT	1			1			2
Yaxchilan, MX		5		3	11		20
Yaxha, GT	1			1			2
TOTALS	32	11	35	71	129	32	310

This is by no means a complete list of either leaders or sites; only what I discovered while researching the data. I found the locations for many sites by following directions from authors, such as "this place is located 13 kilometers southwest of this other, well known location". I measured and marked these locations as best as possible. The 47 sites used in this work span across Mexico, Guatemala, Belize, and Honduras, and are seen in Map 4-1.



Map 4-1:Sites used for research

As stated previously, my original thought was that the usage of supernatural lords' names would be much greater than any other name. Even though each location was independent, they did not exist in a vacuum; there would have been influences from other sites. Also, since the socioreligious ideals were infused in every-day life, the

connection to the deities might have played a larger role in the choice of names.

However, as seen in Table 4-1, the total for the four supernatural names equals 150, while the total for other names equals 123, so it is almost an even amount. Before going any further, a brief description of who each of these supernatural gods were and what they represented should be given.

Chaak

In a land where agriculture is an absolute necessity, rain would be an immediate second necessity. Chaak is the rain god, from the time of the Olmec (1200 BCE to 200 BCE), who lived in the Gulf of Mexico area, in locations such as La Venta, and Veracruz (Pallán Gayol 2009, 17-18). Chaak was one of the most important deities, beginning in early Maya history (Taube 1992, 17). He is represented throughout time with various visualizations, from logograms to anthropomorphized beings. His basic features include: protruding snout or upper lip; has a spondylus shell over each ear; seen with tendrils curling from each corner of his mouth; and is usually carrying a serpentine axe or a K'awiil axe, representing his control over lightning as the rain god, or the relationship he has with K'awiil, the lightning god, as seen in Figure 4-1 (Davies 2016; Taube 1992, 17-19).



Figure 4-1: Chaak, the rain deity, seen holding the K'awiil stick. (Dante Interactivo)

Figure 4-2 displays the name Chaak written as a logogram as part of the name for Chak Bolon Chaak, the *ajaw* from Tonina, who ruled somewhere between 577 and 615. Not much is known about Chak Bolon Chaak, or "red nine rain god", other than his tomb was visited by another Tonina *ajaw*, which was inscribed on a looted panel from an unknown

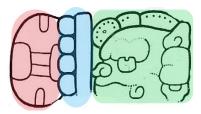


Figure 4-2: Hieroglyphic rendering of Chak (highlighted in red) Bolon (blue) Chaak (green) (graphic from Martin and Grube 2008, 178; highlighted by author).

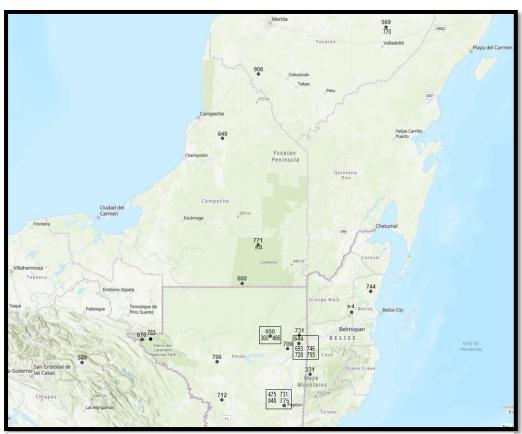
site, but is now located in the town of Emiliano Zapata in Tabasco (Martin and Grube 2008, 178-179). Chaak was also memorialized in architecture, especially in the Yucatan, where his facial features can be seen on buildings at Kabah, Uxmal, and Sayil, as seen in Figure 4-3. Kabah existed since the Preclassic but flourished in the Late Classic (700 to



Figure 4-3: Architectural Representations of Chaak: Kabah, Uxmal (author's photographs) and Sayil (www.voyagevirtuel.co.uk)

900 CE) (INAH–Kabah). Uxmal dates to the Preclassic, being built around 500 BCE, and grew to become the powerful center of political and economic life in the Yucatan in both the 9th and 12th centuries, while Sayil seems to have only come to life in 600 CE, and flourishing around 900 CE, as it was under Uxmal's control (INAH–Uxmal; Sabloff, et al. 1985, 2).

From the data collected as seen in Table 4-1, Chaak was the third most-popular god name used, with a total number equaling 32, from 360 to 906 CE. Map 4-2 shows the distribution of Chaak's use, and the time periods it was used in. It appears that Chaak was widely used across the Maya region, from the Peten to the Yucatan and Campeche, and across to Belize and Chiapas. The only place it does not appear is in Honduras.



Map 4-2: Chaak Locations

Itzamnaaj

Possibly the most important of all of the Maya gods, Itzamnaaj is visualized as being older than the other gods and often carries the Ajaw title. He is seen as a being the lord over esoteric functions, and is identified with writing, divination, and lore, rather than a god of nature, like Chaak, K'awiil or K'inich. (Taube 1992, 31-40). His physical attributes include: Large squinting eyes, as opposed to the wide-opened ones of younger

gods; a Roman-like nose, which is typical of old gods; toothless mouth; and sometimes



Figure 4-4: Itzamnaaj from the Dresden Codex (Taube 1992, 32)

he carries a logogram of his name on his head (Davies, 2016; Martin 2015, 197-208). Itzamnaaj, as seen in Figure 4-4, is seated, rather than in an action pose, to fit the more esoteric attributes. In this drawing, the hieroglyph *itz*, or "essence; that which is related to the soul," is the object dangling from the necklace (Montgomery 2002, 99). Figure 4-5 contains a logogram in the glyphs representing Itzamnaaj Bahlam I, or "Shield Jaguar", as another use of *itz* is as a shield (Taube 1992, 31). He was the second ruler at Yaxchilan and served some time before 379 CE. Figure 4-6 is the hieroglyphic representation for one of his namesakes (not necessarily a descendent), Itzamnaaj Bahlam III, who ruled from 681 to 742 CE. He was known as "the Great", as he ruled for 60 years, a remarkable achievement for any Maya *ajaw* (Martin and Grube 2008, 118-123). Notice that the *itz* syllabogram is used for the first glyph.

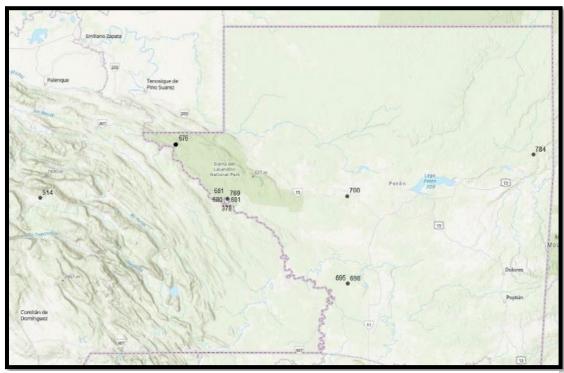


Figure 4-6: Itzamnaaj Bahlam I, as represented by two logograms (Martin and Grube 2008, 118)



Figure 4-5: Hieroglyphs for Itzamnaaj Bahlam III (Martin and Grube 2008, 122)

From the data collected in Table 4-1, for all of the importance placed on him, Itzamnaaj was only used 12 times throughout Mesoamerica, from 378 to 784 CE, as can be seen in Map 4-3. The usage of his name is more regional than any of the other names, as it is centered in the Peten of Guatemala, with the four outliers—Itzamnaaj Bahlam I, II, III and IV at Yaxchilan—to the west. Also, the use of his name does not expand into the 9th century, like the other deity names.



Map 4-3: Itzamnaaj Locations

K'awiil

K'awiil is easily identified by his unusually shaped nose, the *k'ak* or "fire" glyphs he has for hair, and the snake he usually has as a left foot. The snake represents a fire serpent, otherwise known as lightning (Taube 1992, 68-78). He is usually seen being wielded by Chaak, the rain god or by many *ajawob* portrayed on stelae. K'awiil is not only the lightning god, but one of "generations, royal lineage bloodlines" (Montgomery 2002, 149). This is probably why 35 *ajawob* chose to use his name, from 300 to 814 CE,

to indicate some relation to the royal bloodlines. Figure 4-7 demonstrates all of K'awiil's features in a hypothetical reconstruction completed by the Metropolitan Museum of Art, which actually has the snake-like leg, which was made of jade somewhere in the 7th to 9th century (Doyle 2015). The rest of the image in Figure 4-7 is based on a work by Fields and Reents-Budet (2005). A scepter like this would have been utilized by an *ajaw* who was acceding to the throne, which included "grasping the K'awiil scepter" as part of that ceremony. (Doyle 2015). This can be seen in Figure 4-8, Yaxchilan Lintel 53, where Bird Jaguar IV is wielding his K'awiil scepter (Freidel, Schele and Parker 1993, 272).



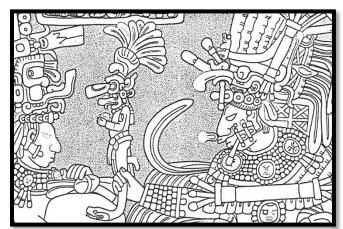


Figure 4-8: Detail of Yaxchilan Lintel 53, Itzamnaaj Bahlam IV, yielding his K'awiil scepter, with his wife.(Freidel, Schele and Parker 1993, drawing by Linda Schele)

Figure 4-7: A K'awiil Scepter (Doyle 2015)

As for K'awiil's name in hieroglyphs, it can be seen in Figure 4-9 with the 'fire as hair' theme (highlighted in green) for the twenty-first *ajaw* of Tikal, Wak Chan K'awiil, who acceded around 537 CE (Martin and Grube 2008, 38-39). As mentioned previously, thirty-five *ajawob* took on the K'awiil name.

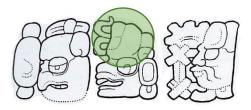
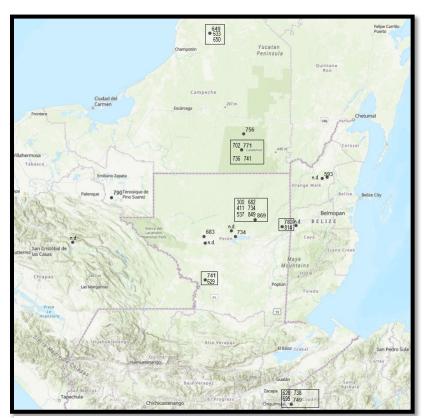


Figure 4-9: Hieroglyphic representation of Wak Chan K'awiil (Martin and Grube 2008, 38)

As seen in Map 4-4, the use of K'awiil is centered in the Peten, but spread out further than Itzamnaaj, to Belize, Honduras, and to Chiapas, Campeche and Yucatan in



Map 4-4: K'awiil Locations

Mexico.

K'inich

K'inich is the Sun god, and carries the k'in logogram on his back, legs and arms in various representations in Maya artistic works. K'in is defined as 'day' or 'sun', and is supposedly a flower, which represents the sun, and therefore, the day (Montgomery 2002,

151). Figure 4-10 has three versions of K'inich seen in various settings. Along with the *k'in* symbol, K'inich's other characteristics include the tendrils curling from the corners of his mouth, T-shaped incisors, his square squinting eyes, and his aquiline nose (Davies 2016).

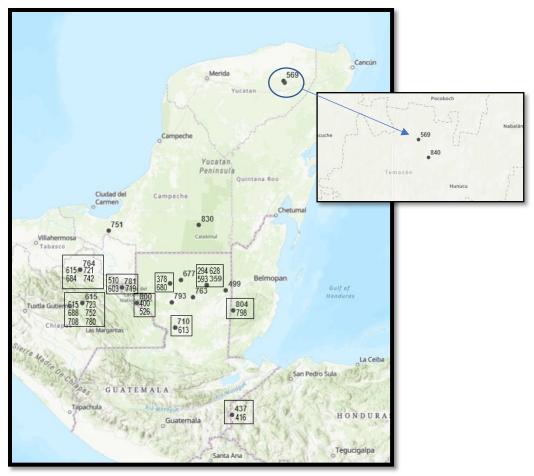


Figure 4-10: K'inich on a Late Classic vase (Kerr 1989); Two variants of the K'inich logogram for 'sun-eyed' or 'sun-faced' (Montgomery 2002, 152)

The different representations of K'inich's name can be seen in the consecutive Late Classic leaders at Caracol as seen in Figure 4-11. Tum Yohl K'inich was the eighth *ajaw* and acceded somewhere around 793. He was followed by K'inich Joy K'awiil, who ruled between 799 to approximately 803 CE (Martin and Grube, 2008, 96). According to Martin and Grube (2008), his was a period of growth, including the construction of many structures, including the B-Group Ballcourt (96-97).

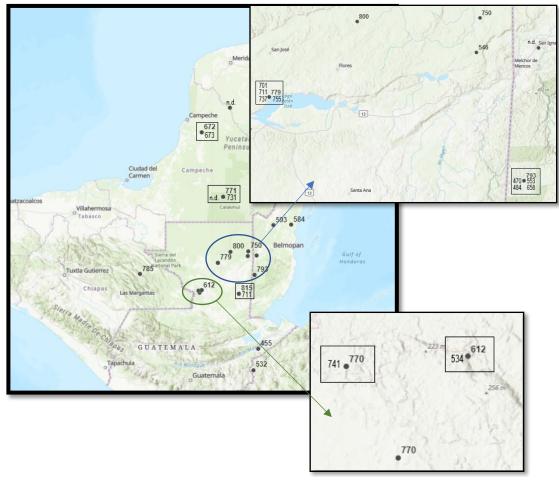


Figure 4-11: Hieroglyphs for Tum Yohl K'inich (notice the k'in 'flower' in the last glyph); and K'inich Joy K'awiil (Martin and Grube 2008, 96)



Map 4-5: K'inich – Prefix distribution

The total number of *ajawob* who used K'inich's name as part of theirs equals 75, from 294 to 840 CE, representing the widest time span of the four deities, as can be seen in Table 4-1. However, caution is suggested when reading the name K'inich. According to Colas (2004) there are two purposes an *ajaw* would take on the name of K'inich. The first use served to improve the *ajaw*'s self being, whereas the second purpose served to define their 'socially defined person' (269). Colas argued that when K'inich is used as a preface, such as in K'inich Joy K'awiil, it is a modifier to the other names, and indicates sacredness or rulership, and it is "invested with the entire power of the sun god" (271).



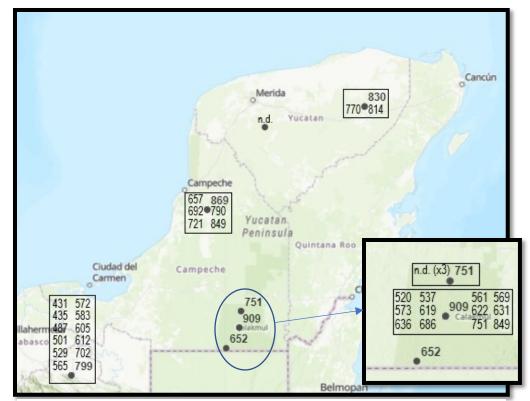
Map 4-6: K'inich – Suffix distribution

On the other hand, when it is used at the end of the name, as in Tum Yohl K'inich, it expresses a particular aspect of K'inich, the deity. This expression refers entirely to the individual, and thus the "self of a king" (271). So, the difference between these two *ajawob* would be that Tum Yohl K'inich can be translated as 'unknown his sun god', and thus represents a part of the god (whatever '*Tum*' is), while K'inich Joy K'awiil can be translated as 'sun god accedes the royal lineage' ('Joy' is the ribbon-like object tied and knotted on the K'awiil logogram), and thus he is claiming the lineage of the god (Montgomery 2002, 119 and 298). This makes the mapping of these names different, as they can be split according to this preface/suffix situation. The locations for *ajaw* names with K'inich as the first name are seen in Map 4-5; the locations with

K'inich at the end are seen in Map 4-6. It is interesting to note that while the postfixed names are spread out, the prefixed K'inich names are centered, once again, around the Peten with a few outliers.

Other Names

Not every *ajaw* took on the name of a deity. I originally hypothesized that this showed a loss or lack of belief in the gods. Martin and Grube (2008) related the history of K'an III at Caracol. K'an III acceded to the throne around 835 and served about fifteen years. Why did he choose a different name than his predecessors? One would think he would want to show a connection to the ruling class or a previous *ajaw*, to demonstrate legitimacy. He is seen on Stela 17 (which he commissioned) sharing space with other leaders or even outsiders. The *ajaw* was having to "negotiate his position" with others who held power either equal or more than his own (Martin and Grube 2008, 99). So instead of having a divine connection, being answerable to supernatural deities, and maintaining balance in his community, the *ajaw* is having to maintain relationships with other humans whose demands were to be met in order for him to remain the *ajaw*. It is this change—from divine *ajaw* to subjugated negotiator with a disconnected holy title—that I theorize represents an early stage of the 'collapse' of Maya society.



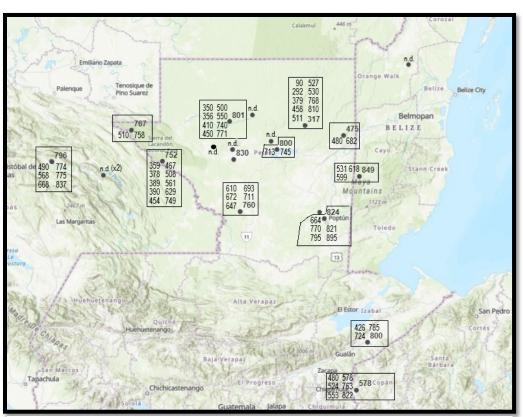
Map 4-7: Distribution of Other Names part 1

Maps 4-7 and 4-8 show the distribution of "Other" names across Mesoamerica. It was necessary to split the data into two maps to be able to view all of the data. The *ajawob* under this classification included those such as Yax Pasaj Chan Yopaat of Copan, who acceded at the age of nine in 763. While his name components may not stand out, they translate to "First Dawned Sky Lightning God" (Martin and Grube 2008, 209). But Montgomery defines the parts as "First Dawned Serpent/Snake Deity" (2002). Either way, his name still refers to a god of some kind. His hieroglyphic name is displayed in Figure 4-12:



Figure 4-12: Yax Pasaj Chan Yopaat in hieroglyphs: yax is in blue; Pasaj is in red; Chan is in green and Yopaat is in yellow (Martin and Grube 2008, 206)

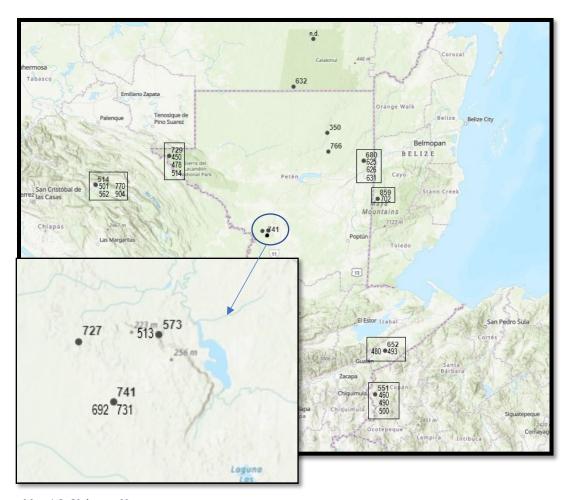
Table 4-1 shows that "Other" equaled 129 names out of the 311 names collected. This is 42% of the names discovered for this research. The 'Other' names cover Mesoamerica much like K'inich does—from the Yucatan down to Copan, from Palenque to Belize. I theorize that this demonstrates a failure in all locations, just at different times, as also claimed by Demarest, et. al. (2014), who stated that it was specific patterns of change in economics and politics, which lead to the decline but not complete dismissal, over time at each location (23).



Map 4-8: Distribution of Other Names part 2

Unknown Names

The names that are found in the Unknown category is not because there are no records of that *ajaw*, but because of one of two options: 1) their name is undecipherable, such as Ruler 4 of Tonina or Rulers A, B, and C of Piedras Negras (Martin and Grube 2008, 140-141 and 183); or 2) the name has been damaged by nature, opponents or looters, as reported by Robichaux at Oxpemul (2010, 63). There, he reported, Stela 21 held the name of a ruler, but due to looters hacking the stela in half, the reference was destroyed (63-64). One can only imagine how many of the 32 "unknowns" could have been a Chaak, Itzamnaaj, K'awiil or K'inich, or even an "Other".



Map 4-9: Unknown Names

K'uhul and K'alomte

Something several, if not all *ajawob* obtained during their years of service were titles, demonstrating their level of divinity, their rank above others. Two of these that are found in multiple hieroglyphic records are *k'uhul* and *K'alomte*. It is understood that the term *K'alomte* was not achieved by every *ajaw*; it seems to have only been given to those who oversaw other communities as well as their own, a supervisory role demonstrating loyalty to the one who provided the title, as well as demonstrating power, wealth and superiority over those under his command. It was only given to a senior *ajaw* when their offspring became an *ajaw* or at least an heir to another *ajaw* (Braswell 2004, 43). Martin and Grube describe the title as one that belonged to only the most powerful Classic dynasties (2008, 17). One *ajaw* even used it as part of his name–K'alomte Bahlam of Tikal, who reigned between 511 and 527 CE, along with the Lady of Tikal, who reigned at the same time (38-39). If anything, this rank demonstrates that there was a political hierarchy in place from almost the beginning of the Classic Period.

I found myself researching the *k'uhul* title, to discover how and if it fits into this overall thesis (Peterson n.d.). It is defined as "holy", "sacred" or "divine" (Montgomery, 2002, 154-155). Many scholars have researched this topic; they all point back to Berlin's discovery of what he called the "Emblem Glyph", a collection of three hieroglyphic elements, the *k'uh(ul)* syllabogram, the *ajaw* syllabogram, and an individualistic 'principal element', usually an hieroglyph that represents a specific location (Berlin 1958). In researching Alfonso Lacadena García-Gallo's work about Ek' Balam's long-serving *ajaw*, Ukit Kan Le'k Tok', he posed *t*he question that led me to create my own hypothesis of the meaning of *k'uhul*, that if there were twenty-one mentions of Ukit Kan Le'k Tok' on monuments, why were there only two mentions of his being a *k'uhul ajaw*?

(2004, 100). I arranged all of the monuments in order by their construction dates (where possible) and came up with the results seen in Table 4-2.

Table 4-2: Ukit Kan Le'k Tok's Dated Monuments and Titles (from Peterson, n.d.; Lacadena Garcia Gallo, 2004)

Year	Monument or Painting	Title	
770	Mural A, room 29-sub (Mural of the 96 Glyphs)	Talol ajaw	
781	Cover of Vault 14	Talol ajaw	
783	Mural in Room 22	Chan K'awiil and Talol ajaw	
792/802	Cover of Vault 19	K'awiil and Talol ajaw	
814	Mural C Room 29-sub	Chan K'uh (K'uhul?)	
830	Column 1, Text 2	Talol ajaw, kalomte'	
840	Stela 1, Text 4	K'uhul ajaw and kalomte'	

As can be seen, the monuments dated 814 (when Ukit died) and 840 (a memorial) carry the *k'uhul* title. I hypothesized that *k'uhul* was not a title to be earned, but bestowed on those who had passed on, more of reverential term than ranking. I also completed some newer research into this term for this thesis. I requested data from the Maya Hieroglyphic Database through Matthew Looper at the California State University in Chico and received 934 entries regarding the term "*k'uhul'*" on known monuments. I separated the data into two sections, one about "*k'uhul* ____ ajaw" or "holy/divine lords" and one about "*k'uhul ixik*" or "holy/divine woman". I then searched for as many possible references, including monument construction dates and the person with the title.

K'uhul Ixik

Of the 934 entries, 64 were "k'uhul ixik". Of those, I was able to verify 14 entries. These are seen in Table 4-3. I believe it demonstrates that it was once a title of possible endearment, as in "beloved mother", or a reverential title, as in "she is

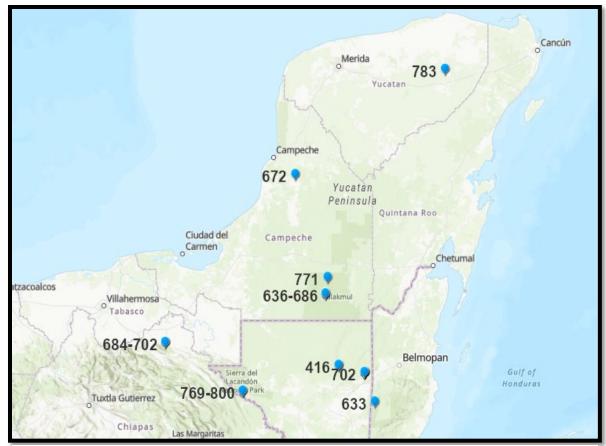
holy/divine because she is the mother of an ajaw".

Table 4-3: Uses of "k'uhul ixik

Site ²	Monument	Monument Date/ Current Ajaw	Block Text and Translation	Subject
Calakmul*	Stela 9 (2 references)	636-686 Yuknoom Che'een II	k'uhul ixik holy lady	his mother
Caracol ⁺	Stela 3	633 K'an II	ix ?? ek' k'uhul yaxa' ajaw "Lady Batz' Ek'", holy Yaxa' (Yaxha) ajaw	his mother
Edzna*	Stela 18	672 Janaahb Yook K'inich	k'uhul ixik holy lady	Lady Jut Chanek' his mother
Ek Balam [†]	Room 22 Mural	783 Ukit Kan Lek Tok'	<i>k'uhul ixik</i> holy lady	his mother
Naranjo*	Stela 24 (3 references)	702 Lady Six Sky	?? k'uhul ixik ?? holy lady	She was a co-
	Stela 29* 682-741 Stela 31* (2 references) Lady Six Sky		?? holy lady son, k	ruler with her son, K'ahk Tiliw Chan Chaak
		?? k'uhul ixik ?? holy lady	(693-728)	
Oxpemul ³	Stela 2	771 Chak Nik	<i>k'uhul ixik</i> holy lady	his mother, name unreadable
Palenque*	Temple of the Cross Alfarda/ Balustrade	615-683 K'inich Janaab Pakal I	yal k'uhul ixik child of the holy lady	Lady Sak K'uk'
	Tablet of the Cross	684-702 K'inich Kan Bahlam II	yal k'uhul ixik child of the holy lady	Lady Tz'akbu Ajaw, his mother
Tikal * and ∻	Stela 1	411-456 Sihyaj Chan K'awiil II	k'uhul? ixik holy? lady	His mother Lady K'inich
	Ballcourt marker	416 Sihyaj Chan K'awiil II	yal? k'uhul? ixik? child of the holy lady?	
Yaxchilan*	Lintel 13	769-800 Itzamnaaj Bahlam	?? k'uhul ixik ?? holy lady	his mother, Lady Great Skull
	Lintel 14	IV	?? k'uhul ixik ?? holy lady	

 $^{^2}$ Citation Key: * = Simon and Grube 2008; + = Nash 2019; ∴ = Gayol 2012; † = Lacadena Garcia Gallo 2004; † = Robichaux 2011; $^{\dot{\sim}}$ = LSCLACMA

I discovered that this term was used as long ago as 416 CE, throughout the Classic period up until 800 CE. The corresponding dates can be seen on Map 4-10.



Map 4-10: K'uhul Ixik locations

K'uhul Ajawob

Out of those original 934 records from the MHD, only seven carried the simple "k'uhul ajaw" title, of which I could verify five of them. I would consider the use of this term in the same vein as the "k'uhul ixik", that they are being called holy/divine because they are either the father of an ajaw, or have passed away, or are being referred to in a possibly endearing term. But, as can be seen in Table 4, the shift from reverent term to title of power is beginning.

Table 4-4: K'ujul Ajaw entries

Location ³	Monument	Date of Monument	Block Text and Translation	Subject
Caracol*	Altar 10	849 K'an III	k'uhul ajaw holy ajaw	"Lord Stormwater Maize"
Quirigua ⁺	Monument 26	493 Mih Toh, "4 th in succession"	<i>k'uhul ajaw</i> holy ajaw	Mih Toh
Uxmal ^f A	Altar 10	Unknown/illegible; Stela 17 (Altar 10 sits in front of it) is dated to 848	k'uhul ajaw holy ajaw	Lord Chac, son of Chac Uinal Kan
			<i>k'uhul ajaw</i> holy ajaw	Chac Uinal Kan
Yaxchilan*	Lintel 46	681-742 Itzamnaaj Bahlam III	k'uhul ajaw holy ajaw	Itzamnaaj Bahlam III

K'uhul (Location) Ajaw

From the original 934 records, 799 could be found to be a specific "k'uhul (location) ajaw" reference. I was able to winnow that down to 605 through verifying dates of the monuments. Rather than list all 605 records, though, I ran a random formula in Excel (as explained in the Methods section). The resulting list of 17 verified ajawob are found in Table 4-5.

_

³ Citation Key: * = Beetz and Satterthwaite 1981; +=Looper 2003; ∫=Kowalski 1980; and ∴=Tate 1992

Table 4-5: K'uhul (Location) Ajawob

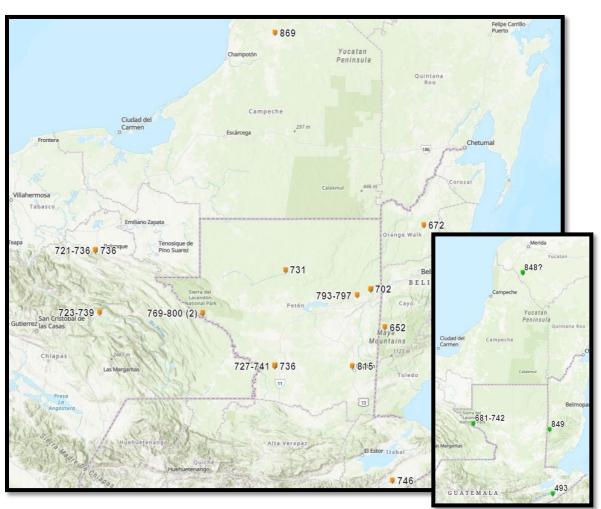
Location ⁴	Monument	Monument Date/	Block Text and	Subject
		Current Ajaw	Translation	v
Aguateca * and + (3 entries)	Stela 2	736 Ruler 3 of Dos Pilas	k'uhul ?? ajaw holy Dos Pilas ajaw	Ruler 3
	Stela 6	770-802 Than Te' K'inich of Dos Pilas	k'uhul _ ajaw holy ajaw	Than Te' K'inich
	Stela 1	727-741 K'awiil Chan K'inich of Dos Pilas	k'uhul ?? ajaw holy Dos Pilas ajaw	K'awiil Chan K'inich
Caracol ^f	Stela 3	652 K'an II (Son of Yajaw Te' K'inich II)	uk'ahk'almijiinmoo kil? xo'm k'uh yaxa' ajaw the child 'his ?? maize flower'? of Xo'm K'uh Yaxa' (Yaxha) ajaw	Yajaw Te' K'inich II
Edzna [⊙]	Hieroglyphic	869	k'uhul ?? ajaw?	Ajan? or
	Stairway 2	Ajan? (Ruler 10)	holy Edzna ajaw?	possibly ruler 7 CHAN?-na CHUWAAJ?
La Corona ⁶	'Dallas Altar'	731 unknown	k'uhul kaanu'l ajaw holy Kaanu'l (Calakmul/Dzibanc he) ajaw	unknown; name not legible
Machaquila	Stela 3	815 Siyahk K'in Chaak II	k'uhul ?? ajaw kalo'mte' holy Machaquila ajaw, kalo'mte'	Siyahk K'in Chaak II
Naranjo ∫ and + (2 entries)	Stela 24	702 Lady Six Sky	k'uhul ?? ajaw holy Dos Pilas ajaw	Her father, Bajlaj Chan K'awiil, of Dos Pilas ⁺
Palenque z and + (2 entries)	Temple 21 Bench	736 K'inich Ahkal Mo' Nahb III	k'uhul baakal ajaw holy Baakal (Palenque) ajaw	Upakal K'inich
Pusilha ^u	Stela H	672 Muyal Nah K'uhul	k'uhul uun ajaw holy Uun (Pusilha) ajaw	unknown
Quirigua ^o	Stela S; Monument 19	746 K'ak Tiliw Chan Yo'paat	k'uhul? ?? ajaw? holy Quirigua ajaw?	acting under "his" supervision,

_

⁴ Citation Key: * = Johnston 1983; + = Simon and Grube 2008; = Beetz and Satterthwaite 1981; Θ = Gayol 2012; σ = Martin 2008; Π = Fahsen 1984, Just 2006 and Garcia Gallo 2011; ∫ = Looper 1992 and Iwaniszewski 2018; χ = Marken 2007; ψ = Braswell, et al. 2004; σ = Looper 2003; $^$ = Stuart 2013; β = Gamez 2013, Grube 2000

Location ⁴	Monument	Monument Date/ Current Ajaw	Block Text and Translation	Subject
Tonina [^]	Monument 171	723-739 K'inich Yichaak(?)	k'uhul po' ajaw holy Po'/Popo'	"he" is unknown It is NOT a Tonina lord,
		Chapat	(Tonina) ajaw	but Calakmul <i>ajaw</i> Took' K'awiil
Yaxchilan ⁺	Lintel 57	769-800 Itzamnaaj Bahlam IV	k'uhul pa'chan ajaw holy Pa'chan (Yaxchilan) ajaw	Itzamnaaj Bahlam IV
	Lintel 58	769-800 Itzamnaaj Bahlam IV	k'uhul kaaj? ajaw holy Kaaj? (Yaxchilan) ajaw	Itzamnaaj Bahlam IV
Yaxha ^B	Stela 13	793-797 K'inich Lakamtunil	k'uhul yaxa' ajaw holy Yaxa' (Yaxha) ajaw	K'inich Lakamtunil

The locations and years from Tables 4-4 and 4-5 are seen in Map 4-11.



Map 4-11: K'uhul (Location) Ajawob with K'uhul Ajawob inset.

CHAPTER 5 DISCUSSION

The three main focus points are: the use and the amounts of all names; the locations where the names were used; and other cultural changes such as the use of the term k'uhul. As can be seen in the numerous maps, there is no consistent use of the deity names across the Maya Lowlands. I originally believed that there would have been many more ajawob names associated with deities than any other name; however, this was not the case for my data set. The use of Chaak is prevalent in the Yucatan at sites such as Uxmal and Kabah in the around the 9th century because the smaller sites such as Kabah and Sayil were under the control of the much larger Uxmal. The very limited use of Itzamnaaj's name surprised me; I figured more would want to demonstrate respect or obedience to the "father" of all the deities. I wonder if those with that name were influenced by others who came through their communities on a trade route? I can understand why K'awiil had more uses than either Chaak or Itzamnaaj; as a tool of power and recognition as an *ajaw*, a connection to K'awiil the deity would be important. Also, K'inich, as the sun deity, and the possibility of having two uses, gave the *ajawob* in defining themselves by the positional use of the name. As for the other names, these are "regular" names for everyday Maya; these particular ajawob may have kept their names after obtaining the *ajawob* seat rather than taking on a different name. Figure 5-1 demonstrates the comparison of the timeframes of each of the name groups. Interestingly, it shows that Itzamnaaj was only used from 378 to 784, for much less time than any of the other names. Could this have been the beginning of the disconnect between ajawob and the deities? Yes, the other names continue for at least two more

centuries, but that does not necessarily mean that the *ajawob* still had that connection to the deity, only that they felt the name was useful for their purposes.

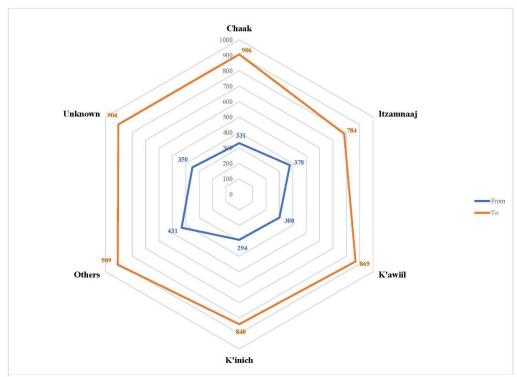


Figure 5-1: Timespan Comparison

If anything, Table 4-3 represents how powerful and important women were, in that their ancestral lines were just as important as a male ancestral line. This is not solely a Maya trait; the Mixtecs of neighboring Oaxaca also relied on their female lineages to make political connections (Spores 1967, 9-13). More importantly, it demonstrates that the term *k'uhul* was not always used as a title denoting power and control when applied to a person. Instead, I believe it demonstrates that it was once a title of possible endearment, as in "beloved mother", or a reverential title, as in "he is holy/divine because he is the father of an *ajaw*". This is especially true in the case of Lady Six Sky of Naranjo, who commissioned Stelae 24, 29, and 31 (among others), and referenced herself as a '*k'uhul ixik*, rather than the more-demanding-of-respect *k'uhul ixik ajaw*, which

would have been appropriate for her, had that been a term used at that time. She was the daughter of a Dos Pilas *ajaw*, and so was of noble stock (Martin and Grube 2008, 74). Yet, her son, K'ahk Tiliw Chan Chaak acceded to the throne when he was only five years old, so she acted as an *ixik ajaw* would, while at the same time mentoring her son to take her place. There is no mention of his father, so the connections with Dos Pilas and Calakmul, whom Dos Pilas served, are the ones K'ahk Tiliw Chan Chaak followed (74-76). I also believe, especially in the case of Ukit Kan Lek Tok' of Ek' Balam, that the term may also be used to refer to one who has died, as is "dearly departed", in reference to his mother on the Mural of Room 22 as well as his own mention in 814 and 840 (Lacadena Gallo-Garcia 2004). References to "k'uhul ixik" are seen in Map 4-10, which demonstrates that this term was not a localized term nor a time-specific one. But, the use of words change over time, and it is the heart of this thesis, that as the *ajawob* changed their names from those of deity to animals and colors, or took the names of past leaders in order to make a connection to them, rather than the deities, that k'uhul also changed, from a reverential, respectful term to a title denoting power and demanding of respect.

My research shows that there are other examples of it being used in this manner; however, at the same time period in other locations, such as Pusilha and Copan, it was being used as an honorific rank or title, applied to an *ajaw* on any monument created while that *ajaw* was still alive. Thus, the meaning was changed from a term of respect to a title demanding respect. In the case of Machaquila, a small community in Guatemala, proof of the changes occurring in the political process can be seen. Exotic goods like jade and quetzal feathers, were a necessity for many western Peten *k'uhul ajaw* for the trappings of power or patronage networks, it would be wise for the *ajawob* of Machaquila

to show their ability or willingness to accept changes away from the status quo of other Maya communities (Demarest, et. al. 2014, 193). This would include the claiming of a *k'uhul ajaw* title, whether the *ajaw* had earned it or not. That external influence would also affect the symbolism displayed on the stelae. For example, many Classic period stelae display an *ajaw* holding a *K'awiil* scepter in his hand as seen in Figure 4-7. By the end of Machaquila's existence, the final *ajaw*, Juun Tsak Took, who ruled from around 825 to 840, had removed the *K'awiil* scepter from Stelae 5 and 6—his final stelae—along with some other Classic era details. While these were new changes for Machaquila, they were consistent with changes being made across the Southern Lowlands (Just 2007, 13-18).

Another example of the changes made using this term, as well as the shift in the purpose of being an *ajaw* can be seen at Quirigua and Copan beginning in the early 6th century. Quirigua was a subordinate location to Copan. In Copan, Honduras, Waxaclajun U'baah K'awiil, formerly known as "18 Rabbit" [Waxaclajun = 18] was responsible for installing K'ak' Tiliw Chan Yopaat K'awiil at Quirigua in 724 CE (Martin and Grube 2008, 203). These two ruled their cities while successfully displaying their power, as manifested in their large collections of monuments. For his part, Waxaclajun U'baah K'awiil was already established as a leader for 29 years by the time he installed the younger *ajaw* at Quirigua (Martin and Grube 2008, 205). Amongst the titles he claimed for himself on those monuments included *k'uhul ajaw*, and "b'aa[h]kab', which translates to "youthful one" (Fasquelle and Veliz, 2010, 327). Meanwhile, K'ak' Tiliw Chan Yopaat K'awiil also built ten monuments dedicated to himself and his bravado (Looper 2003,147). He defeated his mentor Waxaclajun U'baah

K'awiil by decapitating him in 741 CE and bragged about it on almost every monument he created afterwards (213-240). K'ak' Tiliw Chan Yopaat K'awiil apparently hungered for power, and claimed any title he could, earned or not. He never referred to his mentor as anything but "Copan ajaw", not even giving him the honor of the k'uhul term or title; meanwhile, he styled himself as the "black Copan ajaw, South Kalomte' Quirigua ajaw" on Altar M, built in 734 CE, and as the "k'uhul Quirigua ajaw b'akab' on Stela D, built in 766 CE (213 and 221-222). To anyone who was not in the know, these would be impressive. However, he was never a *Kalomte'*, or overseer of any other site besides Quirigua. And why would he continue his Copan *ajaw* title (it is believed he came from another community under Copan's control, and was part of the nobility in that region), unless that title impressed others (besides other Maya) as well? Any connection to power, being seen as the highest ranked, the sole person capable of being in charge, this was now the goal of any ajaw. The Quirigua ajaw did follow my idea about the k'uhul terminology in one instance, however; on Stela C (built in 711 CE) he gave a k'uhul ajaw title to Tutum Yol K'inich, who had served 300 years prior to himself (226-227).

CHAPTER 6 CONCLUSION

From being subordinate, willful supplicants to unseen deities who served their communities to keep balance, to overlords increasingly seeking more power and individual glory who claimed any title they could, the ideal of an ajaw changed over time. This change was reflected in the names many of them used, at first to claim a connection to the pantheon of deities, then later to connect themselves to previous ajawob to demonstrate a lineage of power. I contend they changed the titles they used in order to impress others, not necessarily their constituents, to demonstrate their hierarchical position, even if their histories did not warrant those titles, such as k'alomte' and b'aah kab. In the end, they even gave up their final connection to K'awiil, removing any reference to the one object everyone recognized as a symbol of power, in order to appease interested others, such as what happened in Machaquila. This change represents, from my perspective, a loss of religious and cultural beliefs, not only for the ajaw, but for those who lived in his community. How did this change affect the people of Machaquila, or Ek' Balam, or Calakmul, when their leaders made changes in how they managed the leadership position? We can only guess, as there are no records for them. The fact that the *ajawob did* change demonstrates that there must have been some extreme pressure from external and internal influences, or both. I agree with current academic interpretations that the "collapse of the Maya" was not just one thing, such as weather, lack of supplies, or lack of manpower, but instead it was all of those things combined over time, that forced the *ajawob* to make that change from subordinates of cosmic deities to power-hungry overlords.

Politics, power, status and socioreligious beliefs combined and collided for the Maya *ajawob*. How is one person supposed to maintain a divinely given connection as

they conduct business and sustain their status and power? Apparently for the Maya, it was not possible, as demonstrating power, such as holding a K'awiil scepter was no longer tolerated as they moved into the Late Classic period. The *ajawob* went from being viewed as performing rituals to evoke the supernatural deities, to commanding victories over others, to being seen by themselves alone, in a power-evoking pose, as if to say, 'you must respect me', to being seen on a stelae with others who may have been as powerful as the Maya *ajaw*. This change from divine links to lineage links likely reflects and contributes to the failure of other systems, such as natural resources, labor resources, and trade routes, causing that much-dreaded chaos that the *ajawob* were originally meant to prevent.

Finally, I have been studying the Maya for 20-plus years. The ideas, research, and results presented here are a culmination of investigation over those years, as well as all the tools and information I have learned just in my time at the University of Nebraska. I can suggest that further investigation could be completed by expanding the search for *ajawob* and locations, to see if the results found here are consistent.

REFERENCES

- "Chaak at Sayil". https://www.voyagevirtuel.co.uk/mexique/pages/sayil-palacio-norte-chaak-6.php
- Adams, Richard. 1971. The Ceramics of Altar de Sacrificios. *Peabody Museum of Archaeology and Ethnology* 63 (1).
- Aimers, James J. (2007). What Maya collapse? Terminal classic variation in the Maya lowlands. *Journal of archaeological research*, 15(4), 329-377.
- Andrews, Anthony, E. Wyllys Andrews, and Fernando Robles Castellanos. 2003. The northern Maya collapse and its aftermath. *Ancient Mesoamerica*. 151-156.
- Andrews, E. Wyllys. 1938. Glyphs Z and Y of the Maya Supplementary Series. *American Antiquity* 4 (1): 30-35.
- Aveni, Anthony. 1997. Stairways to the Stars: Skywatching in Three Great Ancient Cultures. J. Wiley.
- Bassie, Karen. 2002. Maya Creator Gods. *Electronic document, www. mesoweb. com/features/bassie/CreatorGods*.
- Beetz, Carl and Linton Satterthwaite Jr. 1981. *The monuments and inscriptions of Caracol, Belize*. 45. UPenn Museum of Archaeology.
- Berlin, Heinrich. 1958. El glifo «emblema» en las inscripciones Mayas. *Journal de la Société des Américanistes* 47. 111-119.
- Boas, Franz. 1888. Die Tsimschian. Zeitschrift für Ethnologie 20: 231-247.
- Bonvillain, Nancy. 2020. Women and men: Cultural constructs of gender. Rowman & Littlefield Publishers.
- Braswell, Geoffrey. 2004. *The Maya and Teotihuacan: reinterpreting early classic interaction*. University of Texas Press.
- Braswell, Geoffrey, Christian M. Prager, Cassandra R. Bill, Sonja A. Schwake. 2004. 25 Recent Archaeological and Epigraphic Research at Pusilha, Belize: Report on the 2001 and 2002 Field Seasons. *Research Reports in Belizean Archaeology* 1: 333-345.
- Brenner, Mark, David A. Hodell, Michael F. Rosenmeier, Jason H. Curtis, Michael W. Binford, Mark B. Abbott. 2001. Abrupt climate change and pre-Columbian cultural collapse. In *Interhemispheric climate linkages*. Academic Press. 87-103.
- British Museum. 2014. The Yaxchilan Lintels: Lintel 24. London, UK. https://www.britishmuseum.org/collection/object/E_Am1923-Maud-4
- Butzer, Kurt W. 2012. Collapse, environment, and society. *Proceedings of the National Academy of Sciences*. 109:10. 3632-3639.
- Campbell, Lyle. 2000. *Mayan Languages*. Encyclopædia Britannica, Inc. https://www.britannica.com/topic/Mayan-languages

- Carrasco Vargas, Ramón. 2008. Montaña y cueva: génesis de la cosmología mesoamericana. Los olmecas y los mayas Preclásicos. *Olmeca, balance y perspectivas, Memoria de la I Mesa redonda* 227-246.
- Colas, Pierre R. 2003. K'inich and King: Naming self and person among Classic Maya rulers. *Ancient Mesoamerica* 14: 269-283.
- Corpus of Maya Hieroglyphic Inscriptions. Yaxchilan Lintel 25. Peabody Museum of Archaeology and Ethnology.

 https://www.peabody.harvard.edu/cmhi/detail.php?num=25&site=Yaxchilan&type=Lintel
- Cowgill, George. L. 1964. The end of Classic Maya culture: A review of recent evidence. Southwestern Journal of Anthropology 20 (2): 145-159.
- Dante Interactivo. "Mayan Gods". n.d. Sticker Set.
- Davies, Diane. 2016. *Maya Gods and Religious Beliefs*. https://mayaarchaeologist.co.uk/2016/12/29/maya-gods-religious-beliefs/#2
- Demarest, Arthur. A., Chloé Andrieu, Paola Torres, Mélanie Forné, Tomás Barrientos, Marc Wolf. 2014. Economy, exchange, and power: new evidence from the late Classic Maya port city of Cancuen. *Ancient Mesoamerica* 25 (1): 187-219.
- Demarest, Arthur and Arthur A. Demarest. 2004. *Ancient Maya: the rise and fall of a rainforest civilization*. Cambridge University Press.
- Douglas, Peter M. J., Arthur A. Demarest, Mark Brenner, and Marcelo A. Canuto. 2016. Impacts of climate change on the collapse of lowland Maya civilization. *Annual Review of Earth and Planetary Sciences* 44: 613-645.
- Doyle, James. 2015. *Grasping the Foot of Lightning in a Maya Scepter Fragment*. Metropolitan Museum. https://www.metmuseum.org/blogs/now-at-the-met/2015/maya-scepter-fragment
- Eberl, Marcus. 2001. Death and Conceptions of the Soul. *Maya: Divine Kings of the Rain Forest* 311-319.
- Emery, Kitty F. 2004. Animals from the Maya underworld: Reconstructing elite Maya ritual at the Cueva de los Quetzales, Guatemala. *Behaviour Behind Bones: The Zooarchaeology of Ritual, Religion, Status and Identity* 101-13.
- Esri. "Topographic" [basemap]. Scale Not Given. "World Topographic Map". http://www.arcgis.com/home/item.html?id=30e5fe3149c34df1ba922e6f5bbf808f. (June through November 2020).
- Fahsen, Federico. 1984. Notes for a Sequence of Rulers of Machaquilá. *American Antiquity* 94-104.
- Fasquelle, Ricardo Agurcia, Vito Veliz. 2010. Manual de los monumentos de Copán, Honduras. *Copán: Asociación Copán*.
- Fields, Virginia M. and Dorie Reents-Budet. 2005. Lords of Creation: The Origins of Sacred Maya Kingship. Scala.

- Freidel, David A., Linda Schele and Joy Parker. 1993. Maya Cosmos Three Thousand Years on the Shaman's Path. Perennial.
- Gamez Diaz, Laura. 2013. Cosmology and Society: Household Ritual among the Terminal Classic Maya People of Yaxhá ca. CE 850-950, Guatemala. [Doctoral dissertation, University of Pittsburgh.]
- García-Gallo, Alfonso Lacadena. 2011. Historia y ritual dinásticos en Machaquilá Petén, Guatemala/ Dynastic History and Ritual in Machaquilá Petén, Guatemala. *Revista Española de Antropología Americana* 41 (1): 205-240.
- Gayol, Carlos Pallán. 2012. A Glimpse from Edzna's Hieroglyphics: Middle, Late and Terminal Classic Processes of Cultural Interaction Between the Southern, Northern and Western Lowlands. *Archaeology* 4: 89-110.
- Gillespie, Susan D. and Rosemary A. Joyce. 1997. 12. Gendered Goods: The Symbolism of Maya Hierarchical Exchange Relations. *Women in Prehistory: North America and Mesoamerica*. 189.
- Grube, Nicholai. 2000. Monumentos Esculpidos e Inscripciones Jeroglíficas en el Triángulo Yaxha-Nakum-Naranjo. El Sitio Maya de Topoxte: Investigaciones en una isla del lago Yaxha, Peten, Guatemala 57: 294-268.
- Gunn, Joel D., Ray T. Matheny, and William J. Folan. 2002. Climate-change studies in the Maya area: a diachronic analysis. *Ancient Mesoamerica* 79-84.
- Haines, Helen R., Phillip W. Willink, and David Maxwell. 2008. Stingray spine use and Maya bloodletting rituals: A cautionary tale. *Latin American Antiquity* 83-98.
- Hendon, Julia A. 1991. Status and power in Classic Maya society: An archeological study. *American Anthropologist* 93 (4): 894-918.
- Hodell, David A., Jason H. Curtis, and Mark Brenner. 1995. Possible role of climate in the collapse of Classic Maya civilization. *Nature* 375 (6530): 391-394.
- Houston, Stephen. 2017. Tributary Texts. *Maya Decipherment: Ideas on Ancient Maya Writing and Iconography*. https://mayadecipherment.com/2017/01/07/tributary-texts/
- Houston, Stephen and David Stuart. 1996. Of gods, glyphs and kings: divinity and rulership among the Classic Maya. *ANTIQUITY-OXFORD-* 70: 289-312.
- Houston, Stephen. 1999. Classic Maya religion: Beliefs and practices of an ancient American people. *Brigham Young University Studies* 38 (4): 43-72.
- INAH-Kabah Information. n.d. Sign at entrance to site. Instituto Nacional de Antropología e Historia.
- INAH–Uxmal Information. n.d. Sign at entrance to site. Instituto Nacional de Antropología e Historia.
- Inomata, Takeshi, Daniela Triadan, Kazuo Aoyama, Victor Castillo, Hitoshi Yonenobu. 2013. Early ceremonial constructions at Ceibal, Guatemala, and the origins of lowland Maya civilization. *Science* 340 (6131): 467-471.

- Inomata, Takeshi, Daniela Triadan, Verónica López, Juan Carlos Fernandez-Diaz, Takayuki Omori, María Belén Bauer, ... & Hiroo Nasu. 2020. Monumental architecture at Aguada Fénix and the rise of Maya civilization. *Nature*. 1-4.
- Iwaniszewski, Stanislaw. 2018. The Observations of the Moon at Naranjo–New Facts and Interpretations. *Mediterranean Archaeology and Archaeometry* 18 (4): 191-198.
- Johnston, Kevin. 1983. Maya dynastic territorial expansion: Glyphic evidence from Classic centers of the Pasion River, Guatemala. *Fifth Palenque Round Table* 7: 49-56.
- Joyce, Rosemary A. 1996. The construction of gender in Classic Maya monuments. *Gender and archaeology*. 167-195.
- Joyce, Rosemary A. and John S. Henderson. 2010. Being "Olmec" in Early Formative Period Honduras. *Ancient Mesoamerica* 21 (1): 187-200.
- Just, Bryan R. 2006. *The visual discourse of ninth-century stelae at Machaquila and Seibal*. Tulane University.
- Just, Bryan R. 2007. Ninth-century stelae of Machaquila and Seibal. *FAMSI*. http://www.famsi. org/reports/01050/01050Just01.
- Kan, Sergei. 1989. Symbolic Immortality: The Tlingit Potlatch of the Nineteenth Century. Smithsonian Institution Press.
- Kennett, Douglas J., Sebastian F.M. Breitenbach, Valorie V. Aquino, Yemane Asmerom, Jaime Awe, James U.L. Baldini, Patrick Bartlein et al. 2012. "Development and disintegration of Maya political systems in response to climate change." *Science* 338 (6108): 788-791.
- Kerr, Justin. 1989. The Maya Vase Book, 1. Kerr Associates.
- Knub, Julie, Simone Thun, and Christophe Helmke. 2009. The divine rite of kings: an analysis of Classic Maya impersonation statements. *The Maya and their Sacred Narratives: Text and Context in Maya Mythologies* 177-195.
- Kowalski, Jeff K. 1980. A historical interpretation of the inscriptions of Uxmal. *Fourth Palenque round table* 6: 235-246.
- Lacadena García-Gallo, Alfonso. 2004. The Glyphic Corpus from Ek' Balam, Yucatán, México. Foundation for the Advancement of Mesoamerican Studies http://www.famsi. org/reports/01057/index. html.
- León-Portilla, Miguel. 1962. The Broken Spears: The Aztec Account of the Conquest of Mexico. Beacon Press.
- Looper, Matthew. 1992. Creation mythology at Naranjo.
- Looper, Matthew. 2003. *Lightning warrior: Maya art and kingship at Quirigua*. University of Texas Press.
- Looper, Matthew and Martha Macri. 1991-2020. Maya Hieroglyphic Database. Beta Version Available at the Department of Art and Art History, California State University, Chico. California State University at Chico.

- LSCLACMA. "Schele Drawings Collection". Los Angeles County Museum of Art. http://ancientamericas.org/collection/browse/29
- Lucero, Lisa, Kazuo Aoyama, Ann Cyphers, Arthur A. Demarest, Takeshi Inomata, Lisa J. LeCount, Timothy W. Pugh, Prudence M. Rice, Vernon L. Scarborough, and Lisa J. Lucero. 2003. The politics of ritual: The emergence of Classic Maya rulers. *Current Anthropology* 44 (4): 523-558.
- Marcus, J. 1992. Mesoamerican writing systems: Propaganda, myth, and history in four ancient civilizations. Princeton, NJ: Princeton University Press.
- Marken, Damien. B.and Arnoldo G. Cruz. 2007. Elite Residential Compounds at Late Classic Palenque. *Palenque: Recent Investigations at the Classic Maya Center* 135-60.
- Martin, Simon. 2008. Wives and daughters on the Dallas Altar. Mesoweb.
- Martin, Simon. 2015. The Old Man of the Maya Universe: A Unitary Dimension to Ancient Maya Religion. *Maya Archaeology* 3. Precolumbia Mesoweb Press. 186–227.
- Martin, Simon. 2019. A Northern War: Coba vs. Oxkintok. *Maya Decipherment: Ideas on Ancient Maya Writing and Iconography*. https://mayadecipherment.com/2019/12/.
- Martin, Simon and Nikolai Grube. 2008. *Chronicle of the Maya kings and queens:* deciphering the dynasties of the ancient Maya. Chronicles.
- Martin, Simon, Stephen Houston, and Marc Zender. 2015. Sculptors and Subjects: Notes on the Incised Text of Calakmul Stela 51. *Maya Decipherment: Ideas on Ancient Maya Writing and Iconography*.
- Maxwell, Judith and Robert M. Hill. eds. 2006. *Kaqchikel chronicles: the definitive edition*. University of Texas Press.
- Miller, Mary and Karl Taube. 1993. *The deities and symbols of ancient Mexico and the Maya: an illustrated dictionary of Mesoamerican religion*. Thames & Hudson.
- Montgomery, John. 2000. The Montgomery Drawings Collection. Foundation for the Advancement of Mesoamerican Studies, Inc.
- Montgomery, John. 2002. Dictionary of Maya hieroglyphs. Hippocrene Books.
- Munson, Jessica, Viviana Amati, Mark Collard, and Martha J. Macri. 2014. Classic Maya bloodletting and the cultural evolution of religious rituals: Quantifying patterns of variation in hieroglyphic texts. *PloS one* 9 (9): e107982.
- Nash. Stephen E. 2019. What Do Monuments Reveal about Their Makers? https://www.sapiens.org/column/curiosities/lord-kan-ii-stela/
- O'Connor, David B. and David P. Silverman. eds. 1995. *Ancient Egyptian Kingship* 9. Brill.
- Pallán Gayol, Carlos. 2009. The Many Faces of Chaahk: Exploring the Role of a Complex and Fluid Entity within Myth. *Religion and Politics. The Maya and their*

- sacred narratives: text and context in Maya mythologies, edited by Geneviève Le Fort, Raphaël Gardiol, Sebastian Matteo and Christophe Helmke. 17-40.
- Peterson, Amy. 2014. Photograph of Chaak faces on the corner of the Nunnery Quadrangle at Uxmal, Mexico.
- Peterson, Amy. 2014. Photograph of the Wall of Chaak Faces at Kabah, Mexico.
- Peterson, Amy. 2014. Photograph of Yaxchilan Lintel 24 at The British Museum.
- Peterson, Amy. 2014. Photograph of Yaxchilan Lintel 25 at The British Museum.
- Peterson, Amy. n.d. The Revered Dead: A Possible Solution to the *K'uhul* Conundrum.
- Pitts, Mark. 2011. A Brief History of Piedras Negras as Told by the Ancient Maya. History revealed in Maya Glyphs. *The Aid and Education Project, Inc. FAMSI*.
- Proskouriakoff, Tatiana. 1950. *A study of Classic Maya sculpture*, *593*, Carnegie Institution of Washington.
- Reading the Ruins: Alfred Maudsley and the Maya Site of Quirigua, Guatemala. Pitt River Museum. https://www.prm.ox.ac.uk/event/reading-the-ruins
- Reents-Budet, Dorie. 1988. The Iconography of Lamanai Stela 9. Research Reports on Ancient Maya Writing 22: 17-32.
- Reilly III, F. Kent. 1986. Olmec iconographic influences on the symbols of Maya rulership: an examination of possible sources. *Sixth Palenque Round Table* 151-166.
- Rice, Don S.and Prudence M. Rice. 1980. The northeast Peten revisited. *American Antiquity* 432-454.
- Robertson, Merle. 1972. VII. Notes on the Ruins of Ixtutz, Southeastern Peten. *Studies in the Archaeology of Mexico and Guatemala* 89.
- Robichaux, Hubert R. 2011. The ancient Maya monuments at Oxpemul, Campeche, Mexico.
- Sabloff, Jeremy. A. and Gordon R. Willey. 1967. The collapse of Maya civilization in the southern lowlands: a consideration of history and process. *Southwestern Journal of Anthropology* 23 (4): 311-336.
- Sabloff, Jeremy A., Gair Tourtellot, Bernd Fahmel Beyer, Patricia A. McAnany, Diana Christensen, Sylviane Boucher, and Thomas R. Killion. 1985. "Settlement and Community Patterns at Sayil, Yucatan, Mexico: The 1984 Season."
- Sanchez y Leon, J. 1797. Apuntamientos de la historia de Guatemala.
- Saturno, William, David Stuart, and Boris Beltrán. 2006. Early Maya Writing at San Bartolo, Guatemala. *Science* 311 (5765): 1281-1283.
- Schele, Linda. 2000. The Linda Schele Drawings Collection. Foundation for the Advancement of Mesoamerican Studies, Inc.
- Schele, Linda and Mary Ellen Miller. 1986. *The blood of kings: dynasty and ritual in Maya art*. George Braziller.

- Schellhas, Paul. 1904. Die göttergestalten der Mayahandschriften.
- Sharer, Robert, and Loa P. Traxler. 2006. The ancient maya. Stanford University Press.
- Shaw, Justine M. 2003. Climate change and deforestation: Implications for the Maya collapse. *Ancient Mesoamerica* 157-167.
- Spores, Ronald. 1967. *The Mixtec kings and their people*. Norman: University of Oklahoma Press.
- Stockett, Miranda K. 2005. On the importance of difference: re-envisioning sex and gender in ancient Mesoamerica. *World archaeology* 37 (4): 566-578.
- Stuart, David. 2013. Tonina's Curious Ballgame. https://mayadecipherment.com/category/iconography/page/2/
- Tate, Carolyn. 1992. *Yaxchilan: The design of a Maya ceremonial city*. University of Texas Press.
- Taube, Karl. 2004. Olmec Art at Dumbarton Oaks. Dumbarton Oaks.
- Taube, Karl. 1992. The major gods of ancient Yucatan. Studies in pre-columbian Art and Archaeology 32: i-160.
- Valero, Gerardo. 2010 "Apocalypto: Epic in a real jungle". Review of *Apocalypto*, by Mel Gibson. *Roger Ebert.com*.
- Webster, David. 2002. The fall of the ancient Maya: solving the mystery of the Maya collapse. Thames & Hudson.
- Wilk, Richard R. 1985. The ancient Maya and the political present. *Journal of anthropological research* 41 (3): 307-326.