Fall 12-14-2021

Chen Mul Modeled Type Effigy Censers, Maya Caves, and Their Relationship with Ritual Practices: Emerging Evidence in Quintana Roo, Mexico

Joy A. Przybyla
Anthropology

CHEN MUL MODELED TYPE EFFIGY CENSERS, MAYA CAVES, AND THEIR RELATIONSHIP WITH RITUAL PRACTICES: EMERGING EVIDENCE FROM QUINTANA ROO, MEXICO

by

JOY A. PRZYBYLA

Under the Direction of Jeffrey B. Glover, PhD

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2021

ABSTRACT

Originating in Mayapan in the Late Postclassic Period (AD 1100- AD 1500) Chen Mul Modeled effigy censers quickly spread throughout the northern part of the Yucatán Peninsula. The part moldmade and part modeled production process created a large assortment of Maya gods readily available for assembly. Ongoing research in Quintana Roo has found several Chen Mul censers in cave shrines and altars. Caves in the Maya region have long been associated with religious rituals and activities. Chen Mul censers found in cave shrines and alters indicate what rituals took place based on the Maya god they were modeled after. Notably, Chaak has been discovered in cave shrines, and his presence points to the extreme importance of rain rituals in the Yucatán Peninsula. However, the presence of other gods expands our understanding of the ritual practices taking place in these sacred, subterranean places. This thesis explores this expansion of ritual practices.

INDEX WORDS: Maya caves, Chen Mul Modeled, Effigy censers, Quintana Roo, Postclassic Period, Yucatán Peninsula, Cave Archaeology

CHEN MUL MODELED TYPE EFFIGY CENSERS, MAYA CAVES, AND THEIR RELATIONSHIP TO RITUAL PRACTICES: EMERGING EVIDENCE FROM QUINTANA ROO, MEXICO

by

JOY A. PRZYBYLA

Committee Chair: Jeffrey B. Glover

Committee: Dominique Rissolo

Louis A. Ruprecht, Jr.

Nicola Sharratt

Brent K. S. Woodfill

Electronic Version Approved:

Office of Graduate Services

College of Arts and Sciences

Georgia State University

December 2021

DEDICATION

For Papa. You would have loved this.

ACKNOWLEDGEMENTS

This thesis would not be possible without the amazing support I have received from my advisor, Jeffrey Glover, and my committee members, Brent Woodfill, Louis A. Ruprecht, Jr., and Nicola Sharratt. Special thanks are given to committee member Dominique Rissolo who has been a constant help and wealth of knowledge on this project. Our countless emails and meetings have been incredibly helpful, and I am forever thankful. Further thanks are given to Bradley Russell for our conversations, Miguel Covarrubias for his review of his personal data and willingness to help, as well as Sam Meacham for his numerous photos. I would also like to thank the following institutions and organizations: Instituto Nacional de Antropología e Historia (INAH), Centinelas del Agua, and Centro Investigador del Sistema Acuífero de Quintana Roo (CINDAQ). Finally, I would like to thank my cohort for their continued support throughout my entire graduate program, specifically Ayesha Khan, Lindsey Goff, and Melissa Romero McCarthy. I love y'all.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CMMs: Chen Mul Modeled Type effigy censer(s)

Arch. Features: Architecture Features

Q. R: Quintana Roo

Mis.: Miscellaneous

ID Feat: Identifying Features

w/: with

btwn: between

EB: eyebrow

Nor: normal

Prom: prominent

Pino: Pinocchio

Wht: white

Circ: circle

Fc: face

Sprt: sprouting

Fr: from

HD: headdress

Patt: Pattern

Squr: square

HSS: human skin suit

U-shp: U-shaped

Sym: Symbol

Jag: Jaguar

Skel: skeletal

Pup: Pupil

1 CHAPTER ONE: INTRODUCTION

Imbued with ritual significance, ancient Maya caves were houses of Earth Lords, doorways to the underworld, the center of the universe, and the sacred place rain and water originated (Brady and Ashmore 1999; Pugh 2005; Rissolo 2003, 2004, 2005a; Rissolo et al. 2016, 2017; Schele and Friedel 1990; Stone 1995). Due to their extreme importance and continued reverence, it is evident objects found inside Maya caves must have been ritually significant as well. One such item is the incense burner. The transformation of copal, cotton, wood, pine pitch, blood, and other natural substances into smoke was a way to feed the gods who controlled the world around the ancient Maya (Brown 2004; Cook 1986; Palka 2018). The receptacle they would burn offerings in was just as important as what was burned and its transformation. The Late Postclassic Period (AD 1100-1500) in the Maya area saw the rise of an effigy incense burner cult which spread from Mayapan across the Yucatán Peninsula (Masson and Peraza Lope 2014; Milbrath et al. 2008; Milbrath and Lope 2009; Rice 1999; Russell 2000; Smith 1971a, Thompson 1957). The Chen Mul Modeled (CMM) Type effigy incense burner (Figure 1.1.1) is a full-bodied, well-formed part-modeled part-mold-made incense burner modeled after a range of Maya gods and goddesses (Masson and Peraza Lope 2014; Milbrath et al. 2008; Milbrath and Lope 2009). Depending on which god or goddess the CMM was modeled after invoked that particular deity during rituals. While a majority of CMM's have been found in temples, halls, and cenote features, a growing number of CMM's are being discovered in Quintana Roo caves leading to the idea the censers were used in more than just temple and hall rituals. The association of invoking a deity would have been enhanced when the CMM was used in cave rituals due to the strong connection between caves, gods, the underworld, and sacred resources.

Figure 1.1.1: Chaak CMM at Museo Maya de Cancun (after Rissolo 2021 personal communication, photo by Dominique Rissolo)

The east coast of Quintana Roo, which had a thriving population during the Late Postclassic Period (AD 1250- AD 1500), has produced a number of CMM's in cave contexts suggesting more attention needs to be paid to cave ceramics in Quintana Roo in general, but especially to effigy incense burner ceramics. When possible, the god the CMM was modeled after needs to be identified because this can lead to the discovery of what kind of rituals took place in these caves.

For example, if a Chaak CMM was found inside a cave context, it can be assumed water and rain rituals and rites took place inside said cave since Chaak is the god of water, rain, and lightning.

1.1 Thesis Outline

This thesis attempts to explain the relevance of the CMM incense burner in relation to caves, but especially to east coast Postclassic Quintana Roo caves and how different CMM gods are a key to further understanding what rituals took place in these sacred caves. Chapter Two explains the overall importance of Maya caves and their role in the sacred landscape. The orientation of sacred monuments and towns was directly linked to caves and mountains. Earth Lords, gods, and ancestors were thought to dwell within caves; they were the entrance to Xibalba (the Maya underworld);, and they at times functioned as the axis mundi for the ancient Maya. Chapter Two also looks at ancient rituals and their uses for the Maya, and relevant ethnographic Maya rituals are discussed because the enduring nature of these rituals speaks to their importance for the Maya people through the generations. Additionally, I devote a section to burning rituals and the overall importance on the art of burning to the Maya (Brown 2004; Cook 1986; Palka 2018). This chapter concludes with a discussion of the Postclassic Cave-Use Complex of which the CMMs are a part.

Chapter Three situates the thesis in time and space. As mentioned above, this thesis focuses on the Late Postclassic era of the Maya, firmly situating it in this time. The east coast of Quintana Roo, Mexico is the area under investigation. Chapter Four moves into explaining the CMM's themselves. I will examine where they originated, what they look like, their groupings and the most popular gods found in CMM form. Further, the gods of the Postclassic will be addressed as they play a vital role in what powers the modeled CMM's had and what rituals were

being carried out in their name. Chapter Five focuses on methodology including literature consulted and personal communications.

Chapter Six provides a thorough analysis of the CMMs discovered so far in Quintana Roo caves and cenotes. I explain the significance of each cave, the offerings found with them, and I attempt to classify all unknown-and pictured- CMMs in the data set. The expectation is that there will be numerous Chaak CMMs are present given the intimate connection between caves, water, and rain (Brady and Ashmore 1999; Pugh 2005; Rissolo 2003, 2004, 2005a; Rissolo et al. 2016, 2017; Schele and Friedel 1990; Stone 1995). The overall importance of rain and water in the karst environment of Quintana Roo, lend the idea Chaak was a paramount deity (Hodell et al. 2007; Rissolo 2005a; Smart et al. 2006). The importance of CMMs in these contexts cannot be overstated and Chapter Six serves to bring more attention to their significance. Finally, Chapter Seven concludes and confirms the need for future research on this subject.

It is my hope the CMM will be more carefully documented after the release of this research as CMMs have an enormous amount of information to give if we only look hard enough. For consistency's sake, in the CMM analysis, all caves are referred to as Cave and all cenotes are referred to as Cenote. While I did consider using the Maya Yucatec word *actun* for cave, I use the word caves from page one and not *actun*, therefore, I will continue to use the English spelling throughout. In relation to the gods of the Postclassic, all names will follow Taube's (1992) spelling apart from Chac, spelled here Chaak as the New Orthography dictates.

2 CHAPTER TWO: SACRED LANDSCAPES, RITUAL USES, BURNING RITUALS, AND THE POSTCLASSIC CAVE-USE COMPLEX

2.1 Introduction

Chapter Two deals with sacred landscapes, ritual uses of caves, burning rituals, and the Postclassic Cave-Use complex (Brady and Ashmore 1999; Brown 2004; Cook 1986; Knapp and Ashmore 1999; Palka 2018; Prufer 2005; Pugh 2005; Rissolo 2003, 2004; Rissolo et al. 2016, 2017; Russell 2016; Schele and Friedel 1990; Stone 1995; Vidal- Lorenzo and Horcajada-Campos 2019; Vogt and Stuart 2005; Weaver et al. 2015; Woodfill 2021). The role of caves is ever evolving due to the continuation of their study (Brady and Ashmore 1999; Pugh 2005; Schele and Friedel 1990; Stone 1995). Various rituals took place inside caves with decent communities adapting them over time (Brady and Ashmore 1999; Brown 2004; Russell 2016; Vidal- Lorenzo and Horcajada- Campos 2019; Vogt and Stuart 2005; Woodfill 2021). Burning rituals are particularly important because of the transformative power of fire (Brown 2004; Cook 1986; Palka 2018). Finally, the Postclassic Cave-Use Complex is a way to classify Postclassic caves that exhibit certain characteristics including Postclassic occupation, imitation of surface architecture, rock art, and offerings (Andrews IV and Andrews 1975; Prufer 2005; Rissolo 2003, 2004; Rissolo et al. 2016, 2017).

2.2 Sacred Landscapes

By studying the past, the landscape has been incorporated into the realm of archaeological study. In the past, landscapes were thought to be nothing more than the backdrop for past societies to travel upon (Knapp and Ashmore 1999). Now, they are accepted as playing an integral part in the everyday lives of past civilizations. Beyond the construction of monuments, the natural environment plays an essential role in how past peoples constructed their

lives. The interaction between people and the environment is different in every society. The Maya believed in cosmically ordained environments and sacred landscapes, which meant the earth itself was sacred (Brady and Ashmore 1999). Orienting towns and cities in accordance with the sacred landscape, the ancient Maya preferred to build where caves and mountains were already located (Brady and Ashmore 1999). A connection to the supernatural was favorable when constructing the built environment, and there were few landscapes more imbued with supernatural relevance to the ancient Maya than caves and mountains. Situating dwelling places on top of caves and near mountains ensured the landscape was connected to the heavens and Underworld. By constructing a city near or on top of a cave, that city was "cosmically ordained" (Brady and Ashmore 1999:132). Caves also centered the settlement and were viewed as the center of the world (Brady and Ashmore 1999; Schele and Freidel 1990). If caves and mountains were not readily available, the ancient Maya would construct pyramids and underground tombs (Brady and Ashmore 1999:133).

The Maya believed the world was separated into three different layers; "the starry arch of heaven, the stony Middleworld of earth made to flower and bear fruit by the blood of kings, and the dark waters of the Underworld below" (Schele and Freidel 1990:66). A world tree *Wacah Chan,* commonly thought of as a Ceiba tree, ran through all three layers of the world with its roots found in the Underworld and its highest branches reaching heaven above (Schele and Freidel 1990:66-67). The Maya believed *Wacah Chan's* roots formed multiple subterranean caves[1]; they also function as an axis mundi or the center of constructed Maya sites (Brady and Ashmore 1999; Weaver et al. 2015). Caves were the entry points to the subterranean caverns the roots of the world tree formed (Schele and Friedle 1990:66; Weaver et al. 2015:123). The Maya

[1] The number of subterranean caves varies. Brady and Ashmore (1999:127) argue it is seven, while Weaver et al. (2015:123) argue it is nine.

would place small pits in the center of homes to act as the axis mundi for the houses. The caves found in the village acting as the larger axis mundi, centering the entire site (Brady and Ashmore 1999:127). Monuments such as pyramids were built on top of existing caves to invoke the connection between the hollow mountain and the cave (Weaver et al. 2015). Actun Xcoch, a site in the Puuc Region of the Yucatán, was constructed over a cave complex with the main plaza built over a large cave that would hold up to twenty people. A passage inside the cave system shows evidence of once holding water and seems to have been connected to the Great Pyramid above through a staircase (Weaver et al. 2015:125-128). At Dos Pilas, the royal palace complex is built on a cave that serves as the main outlet of the drainage system. Due to the heavy seasonal rains, water rituals, fertility rituals, and crop cycles were enacted here (Brady and Ashmore 1999:129-130). This use of seasonal rain would strengthen the ties between the king and the continuation of crop cycles, further solidifying his cosmic right to rule (Brady and Ashmore 1999).

While the three world layers existed on top of each other, there were ways to enter the Underworld through the caves and mountains. Caves functioned as a liminal space and were believed to be entrances and gateways to Earth Lords and the Underworld. Mountains, caves, and water are of extreme importance in understanding ancient Maya rituals. The Maya underworld is considered to be watery, making water found inside caves ritualistically pure, called *zuhuy ha* (Brady and Ashmore 1999:127). Mountains are thought to be hollow and the home of Earth Lords, who are earth deities who hoard precious resources like animals, maize, and, most prominently, water (Brady and Ashmore 1999:126). The entrances to these hollow mountains are through caves. Mountains and caves also further link the present-day community with their ancestors (Brady and Ashmore 1999:128). Further, caves are active and alive beings

who participate and revive offerings (Woodfill 2021:4). The pottery and offerings found inside caves do not always fit into the neat boxes of light and ark zone rituals (Prufer 2005; Woodfill 2021). Light or twilight zones are open to all people, elite and laymen alike, with dark zones existing for ritual practitioners (Prufer 2005). However, when the cave is thought of as an active member of the rituals performed, the delineation of pottery is transformed from who can see it to how well the cave itself can accept the pottery offering (Woodfill 2021:7-8).

In present-day Maya populations, "sacred caves are located at the base, or in the sides, or mountains" (Vogt and Stuart 2005:176). Vogt and Stuart (2005:176-177) note a number of similarities between Maya communities in the Chiapas highlands where caves and mountains are still seen as being symbolically relevant and closely connected to the community. Caves and mountains both house the "essences (inner soul) or the co-essence (animal-spirit companions)" of living people of the group as well as "[embracing]" the member's souls or protecting them (Vogt and Stuart 2005:176-177). These caves are also seen as entrances to the Underworld, as well as being the origin of rain, thunder, clouds, and lightning while important caves are where springs or streams emerge (Vogt and Stuart 2005:177). They are understood to be entrance points, the symbolic "'doors'" open and close and can be "guarded" by toads and snakes (Vogt and Stuart 2005:177). The modern Maya shrines inside caves look different from their ancestors, "Catholic-looking crosses" replace manmade platforms or shrines around stalagmites and ritual offerings include copal- but also rum and candles (Vogt and Stuart 2005:177). Vogt and Stuart (2005:177) find that modern-day Maya communities also continue to orient themselves around mountains and caves, with important mountains being located to the east of the settlement. While there are variations in the different modern Maya communities, Vogt and Stuart (2005:177-178)

see this as stemming from “historical episodes in the encounter between the Pre-Columbian Maya and the conquering Spaniards.”

2.3 Ritual Uses in Caves

Since caves are liminal spaces between the underworld, heavens, and inhabited earth, they are imbued with great power (Schele and Freidel 1990). The homes of Earth Lords and bursting with sacred water, clouds, lightning, and resources, they are the perfect places to conduct rituals (Brady and Ashmore 1999). These rituals could be related to political renewal, agricultural fertility, and water rites (Brady and Ashmore 1999; Vidal-Lorenzo and Horcajada-Campos 2019). As mentioned above, the site of Dos Pilas examined by Brady and Ashmore (1999:128-132) was used for water and fertility rituals and the renewal of the crop cycle. Three of the largest complexes at Dos Pilas are all aligned with naturally occurring springs along with two of the largest public complexes (Brady and Ashmore 1999:128-129). The royal palace’s axis mundi is located on top of a cave entrance, with the Cueva de Murciélagos, or drainage outlet lying just below the palace platform (Brady and Ashmore 1999:129). Because of the heavy rain cycles the rushing water can be heard over a half kilometer away from the drainage outlet through the cave (Brady and Ashmore 1999:129). The outpouring of water from this outlet was a sign the rainy season had begun, which meant the agricultural cycle could begin as well (Brady and Ashmore 1999:129). This association with the palace and the outpouring of water from the Cueva de Murciélagos solidified the king’s responsibly and divinely ordained ability to renew the rainy season and the start of the agricultural season (Brady and Ashmore 1999:130). This ritual simultaneously was a water ritual, an agricultural ritual, and a renewal of political power.

Water rituals were an important facet of cave rituals. Caves were thought to be the source of water, making water within caves sacred and rituals dedicated to rain gods vital (Pugh 2005:

50; Vidal-Lorenzo and Horcajada-Campos 2019). Vidal-Lorenzo and Horcajada-Campos (2019) explore La Blanca and Chilonché, two sites with Postclassic water ritual ties. Though both sites were constructed in the Classic period, pilgrimage to these sites continued into the Postclassic after their abandonment with water rituals conducted at the ruins of the sites (Vidal-Lorenzo and Horcajada-Campos 2019:112-113). After its abandonment, La Blanca has had two separate occupations, including one in the Terminal Classic Period and the last from the Postclassic (Vidal-Lorenzo and Horcajada-Campos 2019:114). The Terminal Classic occupation saw funeral bundles placed inside palace rooms with the Postclassic occupation seeing upside down pots placed in the corners of the multi-chamber 6J2 palace rooms (Vidal-Lorenzo and Horcajada-Campos 2019:114). The first pot discovered was found a short distance from a vault spring in Room 3 (Vidal-Lorenzo and Horcajada-Campos 2019:114). Vidal-Lorenzo and Horcajada-Campos (2019:114) discovered four more upside down pots in Rooms 6, 8, 9, and 16 in the palace. In Chilonché, two more pots were found in the 3E1-South Palace; the pots were also found in an upside-down position (Vidal-Lorenzo and Horcajada-Campos 2019:114). The placement of these pots, upside-down in corners of rooms, indicate a water ritual pattern. In addition to the pots, Vidal-Lorenzo and Horcajada-Campos (2019:114-115) recovered an effigy censer modeled after the rain god Chaak, shells beads, jade beads, animal bone fragments, flakes and flint projectile points, and freshwater snail shell fragments. All these offerings support the theory these locations were pilgrimage destinations for water rituals after both sites were abandoned. Due to the nature of the upside-down pots and the association with water rituals, Vidal-Lorenzo and Horcajada-Campos (2019:116-121) believe these sites were places of Chak Chel rituals. Chak Chel or Goddess O, is featured in some codices pouring water on the earth representing the benevolent and destructive nature of rain (Vidal-Lorenzo and Horcajada-

Campos 2019:116). Since Chak Chel is closely associated with the rain god Chaak since both male and female gods were called upon to fertilize the earth and bring forth good crop yields (Vidal-Lorenzo and Horcajada-Campos 2019:116-117).

In the Yucatán of Mexico, the modern-day Maya of Telchaquillo still conduct agricultural rituals that are linked to surrounding cenotes (Russell 2016:4). Like the modern-day Maya of the Chiapas Highlands, the Telchaquillo believe cenotes and caves are gateways to the Underworld as well as the source of rain (Russell 2016:4). At the center of the Telchaquillo village is a large cenote, literally situating the village in the cosmic landscape (Russell 2016:7).

While this central cenote is no longer used in ritualistic activities, the Telchaquillo still hold to the belief that cenotes have supernatural powers with some "[requiring] the performance of special rites" to enter (Russell 2016:7). Some of these powerful cenotes have guardians similar to the snake and toad guardians of the Highland Maya caves and cenotes (Vogt and Stuart 2005; Russell 2016). One distinction the Telchaquillo have from the Highland Maya is the belief that water from cenotes is sacred water and some cenotes require permission to obtain the water found inside; with failure to do so resulting in sickness and even death (Russell 2016:8). It is of no surprise to find the rain god Chaak as an active member of the ritual activities for the Telchaquillo since water and cenotes are so heavily featured. Chaak is thought to live inside the cenotes, and he is recognized by his long trunk-like nose and fangs (Russell 2016; Thompson 1957). These Chaak rituals take place around May or June, which denotes the beginning of the rainy season and mark the "transition from the dry season to the wetter agricultural growing season" (Russell 2016:8-9). Beyond the yearly rainy season rituals, there are other rituals that must be performed when sacred cenotes must be entered or disturbed. When Russell (2016:10, 16) and his team needed to conduct archaeological research inside a cenote, the community

performed a "*Jeets' Lu'um* or 'calming the earth' ceremony to petition various supernatural forces for permission to explore the sacred cenote," which, once accepted by the supernatural forces, granted them safety to work inside the cenote. All these rituals deal with the sacredness of cenotes and exemplify the enduring belief in Maya caves.

In the highlands of Guatemala, the K'iche' Maya utilize El Duende Mountain[2] in their contemporary rituals which are greatly influence by their ancient Maya ancestors (Brown 2004). El Duende has a number of shrines at its summit and its outcrop, as well as rock shelters on its slope, which the native community utilize in various different rituals (Brown 2004:32). There are three different types of rituals preformed on El Duende, the *tabal*, the *porobal*, and *mal entierro* (Brown 2004:36). The *tabal* or altar, is the first place those preforming rituals seek on El Duende and can be natural formed or constructed (Brown 2004:36). After cleaning the leftover debris, new offerings such as pine needles, flowers, food offerings and candles are placed upon the top of the feature (Brown 2004:36). Man-made items like crosses, sculptures, and ceramics are found on *tabal's* as well (Brown 2004:36-37). After the ceremony is complete, all sacrificial objects are left at the *tabal* (Brown 2004:37).

The *porobal* is a sacrificial hearth which is only used for burning rituals and sacrifices to deities (Brown 2004:37). A more in depth look at this ritual will take place in the next section. The final ritual that takes place on El Duende is the *mal entierro* which means evil burial (Brown 2004:39). During these rituals an object is buried in the ground with the purpose of causing harm to another individual, such as illness or death, with magic (Brown 2004:39). While most of the Highland Maya view the *mal entierro* as a form of dark magic only performed by those of a corrupt nature, there are times when the *mal entierro* is preformed to counteract a burial that took

[2] Author Linda A. Brown (2004:32) gives the mountain studied this name to protect the indigenous community and their ritual site.

place against an innocent person (Brown 2004:39-40). Whether they are justified or not all *mal entierro's* involve a mode of the intended victim made from wax, clay, copal, meat, or cloth; the figurines can be dressed and have hair belonging to their human counterpart and are stuck with sharp objects such as glass, pins, and thorns (Brown 2004:40). Buried alongside the humanlike figurine, a number of offerings can be found. These can include animals, candle wax, chili, human bone, different spices, eggs, copal, pine pitch, and cigarettes (Brown 2004:40). These offerings are usually squashed and buried under large rocks (Brown 2004:40). Both the *tabal*, the *porobal*, and the *mal enteirro* are modern day rituals decent communities of the Maya continue to use. The continued link between mountains and caves with rituals has lasted for hundreds of years for the Maya. Further, burying their offerings is an adaptation of burying offering in the center of the ancient Maya houses (Brady and Ashmore 1999).

2.4 Burning Rituals

Fire is a transformative element (Palka 2018:302). It is used to cook, create, and burn (Palka 2018:302). Burning in particular has extreme importance. The modern K'iche' of El Palmar, Guatemala refer to their religious practices as "'burning'" (Cook 1986:139). Offerings that are made to their pantheon of supernatural beings are "made into or in the presence of fire" (Cook 1986:139). Landa (Tozzer 1941:152-166) in his account of the Yucatán Maya documents the various months and the rituals performed in them always include a burning of some kind. The Maya would offer their idols gifts and burn copal in front of them (Tozzer 1941:153). The idols were given "sacrifices [sic] of incense" (Tozzer 1941:75). Burning was seen as a transformative process which transformed objects of this world into a smoke fit for consumption by the gods (Brown 2004: 37; Palka 2018:310). The burning of copal and other natural

substances produced large black clouds which the Maya believed carried rain and wind which were needed to grow crops (Palka 2018:301).

As has been stated, caves were places infused with spiritual and ritual significance (Brady 1989; Brady and Ashmore 1999; Pugh 2005). As liminal spaces (Pugh 2005:50) they were in between the Middle world the Maya occupied and the Underworld the gods resided in (Schele and Freidel 1990:66) Therefore, any ritual that took place inside a cave were more connected to the watery underworld and the gods below. Further, caves were viewed as transformative places like burning (Stone 1995:37-38). As Stone (1995:37) states "objects brought out of a cave are subject to this law of transformation" marking the power objects brought into, and subsequently out of, caves would gain. Burning- and transforming- objects inside a transformative place would cement the now significant nature of the object transformed, be that blood, copal, cotton, maize, or other natural objects.

Traveling back to El Duende Mountain, the *porobal*, or sacrificial offering heath, is only used for burning offerings to the gods (Brown 2004:37). When beginning this ritual, the practitioner will create a circle of sugar referred at as a "mesa" or table where the gods will eat (Brown 2004:37). Once the table is created, the offerings will be placed on top in a pile. Pitch pine and candles make up the bottom layer with food on top along with copal; the final layer is blood from a sacrificed animal (Brown 2004:37). Depending on what kind of ritual is taking place[3] more sweet or spicy items will be added to the offering pile (Brown 2004:37-8). These rituals are distinct from other rituals performed on El Duende because they are burned, not buried or simply left on altars (Brown 2004:39). The ritual process needed for the *porobal* had to

[3] A *ceremonias blancas* or white ceremony is used to attract good things to the practitioner and a *ceremonias negras* or black ceremony is used to get rid of bad things (Brown 2004:37-8)

undergo a transformation to be completed, the deities the offerings were made to had to be transformed into a consumable entity in order to work.

2.5 Postclassic Cave-Use Complex

While the Postclassic Period (AD 1100- AD 1500) on the east coast of Quintana Roo was marked by distinct architectural tradition, bustling coastakl port sites, and dense settlement, , one of the more pronounced characteristics was the emergence of what will be referred to as the Postclassic Cave-Use Complex, a term coined by Dominique Rissolo (2021 personal communication). This complex is marked by numerous alters and shrines found in Quintana Roo caves along with, the imitation of surface architecture in caves, the presence of rock art, and offertory remains.

In their study of the site Xcaret, Andrews IV and Andrews (1975:54-60) note the presence of shrines and temples. Andrews IV and Andrews (1975:56) classify shrines and temples together at Xcaret and state they are “single rooms on low platforms” and unlike Pyramid Temples, are not elevated. Of the five building categories three of them are dedicated to shrines. Shrines and temples are the most common architectural construction found at Xcaret with over 20 found (Andrews IV and Andrews 1975:56-58). Complex shrines are “shrine within a shrine” buildings and miniature shrines are “[simplistic] and [crude]” in their construction make up two separate categories (Andrews IV and Andrews 1975:58-60). Every coastal site explored in Andrews IV and Andrews (1975:74-100) exhibits a shrine, with several containing rock art or murals as well.

The imitation of surface architecture below in caves is a facet of the Postclassic Cave-Use Complex which needs special attention (Figure 2.5.1 and Figure 2.5.2). The shrines located within caves function as shrines within shrines (Rissolo 2003:138). Caves themselves are already

ritualistically important spaces (Brady and Ashmore 1999; Pugh 2005; Rissolo 2003; 2004; 2005a; Schele and Friedel 1990) and when modified they function as what Andrews IV and Andrews (1975:58) explain are complex shrines. Heavily stuccoed and painted green, blue, or red shrines in caves follow the architectural style exhibited by their surface counterparts (Rissolo 2004; Rissolo et al. 2016; Rissolo et al. 2017). Further, these shrines within shrines delineate a degree of separation. The public shrine is accessible by all, while the inside shrine is restricted, operating within a "dark-zone" (Brady 1989; Prufer 2005). Inside shrines would have been open only to ritual specialists who could pass through all zones inside the cave shrines as well as their surface cousins (Prufer 2005:187). These ritual practitioners could cross political, social, and metaphysical boundaries that laymen Maya could not (Prufer 2005:190). This liminal position enabled the practitioners to conduct rituals in both surface and subsurface levels, in public and restricted areas.

Figure 2.5.1: Cave Shrine at cave known as Aluxes (after Rissolo et al. 2017: fig. 1)

Figure 2.5.2: Cave shrine XH-1 with altar and throne (after Rissolo et al. 2017: fig. 4)

Rock art is another component of the Postclassic Cave-Use Complex (Rissolo 2020). Rock art in these areas is "commonly associated with watery areas and pathways leading to pools" and unlike the rock art found in the south focus more heavily on rain, agricultural and fertility (Rissolo 2020:1094). Faces, rain imagery, and sexual imagery, make up the rock art and are found in a variety of places inside the caves and cenotes (Rissolo 2020). Rock art faces (Figure 2.5.3) in Quintana Roo caves are commonly found on pathways and stairways leading to water, on large flowstone or dripstone mounds, walls, and shrines (Rissolo 2020:1096-97). The presence of faces could be an act of animation, a way to bring to cave to life further by carving faces into the walls, a way of "channeling or conjuring" the cave and waters lifeforce (Rissolo 2020:1099).

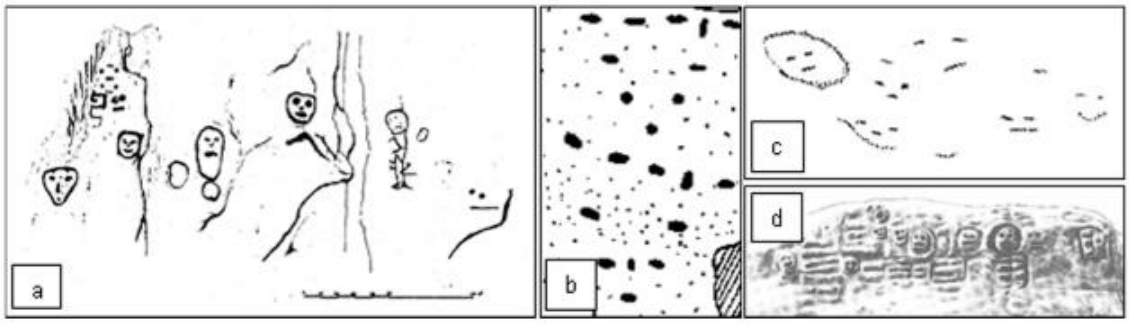

Figure 2.5.3: Rock art Faces at Cueca Xcosmil (a), Aktun Ch'en Chin (b), Pak Ch'en (c), and Tancah Cenote (d) (after Rissolo 2020: fig. 2, a-d)

Rock art associated with rain and water imagery is another feature of the Postclassic Cave-Use Complex. Images and figures include S-scrolls (Figure 2.5.4), animals associated with water, rain deities, and vulvas (Rissolo 2020:1099-1102). The S-scrolls are typically found with Chac and are viewed as clouds and can be surrounded by tiny dots which are viewed as rain (Rissolo 2020:1099). Animals associated with water have been found in Quintana Roo caves and include toads, fish, and turtles (Rissolo 2020:1099-1100). Rain god imagery has been well documented in caves (e.g., Rissolo 2020:1100). Vulvas (Figure 2.5.5) documented alongside water continue the "powerful statement of water and fertility" and are classified as sexual imagery (Rissolo 2020:1102). Female genitalia and inverted U-shapes between legs link watery caves to the womb and impress upon the visitor of the cave the importance of water for fertility and the continuation of all life (Rissolo 2020:1103-04). Andrews IV and Andrews (1975: 71) also document the appearance of rock art at multiple Xcaret shrines and multiple sites in the east coast survey have remnants of rock art (Andrews IV and Andrews 1975:74-100).

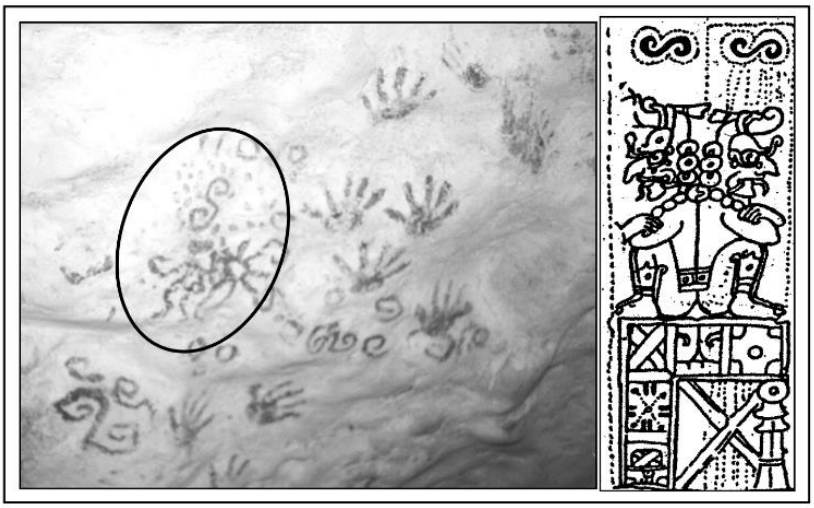

Figure 2.5.4: Rock art S-scrolls (after Rissolo 2020: fig. 5, a-b)

Figure 2.5.5: Rock art Vulvas (after Rissolo 2020: fig. 6, a)

Offertory remains are often present when dealing with shrines and alters. The number of shrines and alters means there is a large amount of offertory remains as well. Chen Mul Modeled Type effigy censers can be classified as a type of offering, but they act more as conduits of offerings more than function as one. Rissolo (2001) in his dissertation recorded ceramics found in caves and on alters in caves, which are undoubtedly offerings. Chert bifaces, shells (Rissolo

personal communication 2021), cacao seed pods (Rissolo 2003:83), copal residue (Rissolo 2003:85), as well as ear spools (Rissolo 2003:85) are just some of the offerings found in the Postclassic Cave-Use Complex.

2.6 Summary

This chapter focuses on the importance of the sacred landscape the Maya implemented into their settlements (Brady and Ashmore 1999; Pugh 2005) the variety of rituals the Maya used and continue to use (Brady and Ashmore 1999; Brown 2004; Russell 2016; Vidal-Lorenzo and Horcajada-Campos 2019; Vogt and Stuart 2005) and the emphasis of burning and fire's transformative power (Brown 2004; Cook 1986; Palka 2018). The landscape of the Maya is a living thing with caves and mountains participating and receiving the offerings the Maya left in them (Woodfill 2021:4). Ancient rituals of the Maya dealt with uncertainty of the time, water, political and agricultural renewal (Brady and Ashmore 1999; Vidal-Lorenzo and Horcajada-Campos 2019) while the descendant community deals with the uncertainties of their time, water, illness, malicious intent, permission to take water (Brown 2004; Russell 2016; Vogt and Stuart 2005). These rituals often included a burning component, emphasizing the importance of burning.

The Postclassic Cave-use Complex as a categorizing method is helpful when looking at the east coast of Quintana Roo, Mexico. The numerous caves along the coast hosting shrines and altars, imitation of surface architecture, rock art, and offerings are the components of this complex (Andrews IV and Andrews 1975; Prufer 2005; Rissolo 2003, 2004, 2020; Rissolo et al. 2016, 2017). Functioning as shrines within shrines (Andrews IV and Andrews 1975; Rissolo 2004; Rissolo et al. 2016, 2017), all altars and shrines within caves need to be inspected for the elements discussed. Shrines within shrines lead to the use of ritual practitioners and light-and-

dark-zones used at different times, for different purposes, by different people (Prufer 2005; Rissolo 2004; Rissolo et al. 2016, 2017). CMMs found in this complex can lead to a better explanation of the array of rituals that are found in the Postclassic Cave-use Complex.

3 CHAPTER THREE: CULTURAL HISTORY AND SETTING

3.1 Introduction

This chapter deals with the cultural history and setting. First, the Postclassic Period (AD 1100-1500) is discussed. This period of time was marked by a departure from the Classic period before with an intensification on the trade industry and a rise of the merchant class with a lessening of the elite ruling class of before (Aimers 2007; Andrews 1993; Andrews et al. 2003; Sabloff 2007). With this rise in trade and merchant class, Mayapan became a major player in the Postclassic and eventually dominated the space politically, culturally, and religiously (Masson and Peraza Lope 2014). Lastly Quintana Roo, Mexico, as the seat of this research is discussed. The east coast of Quintana Roo is a unique are in the Yucatán peninsula (Hodell et al. 2007; Rissolo 2005a; Smart 2006). This are is discussed in relation to the Postclassic Period specifically.

3.2 Postclassic Period (AD 1100- AD 1500)

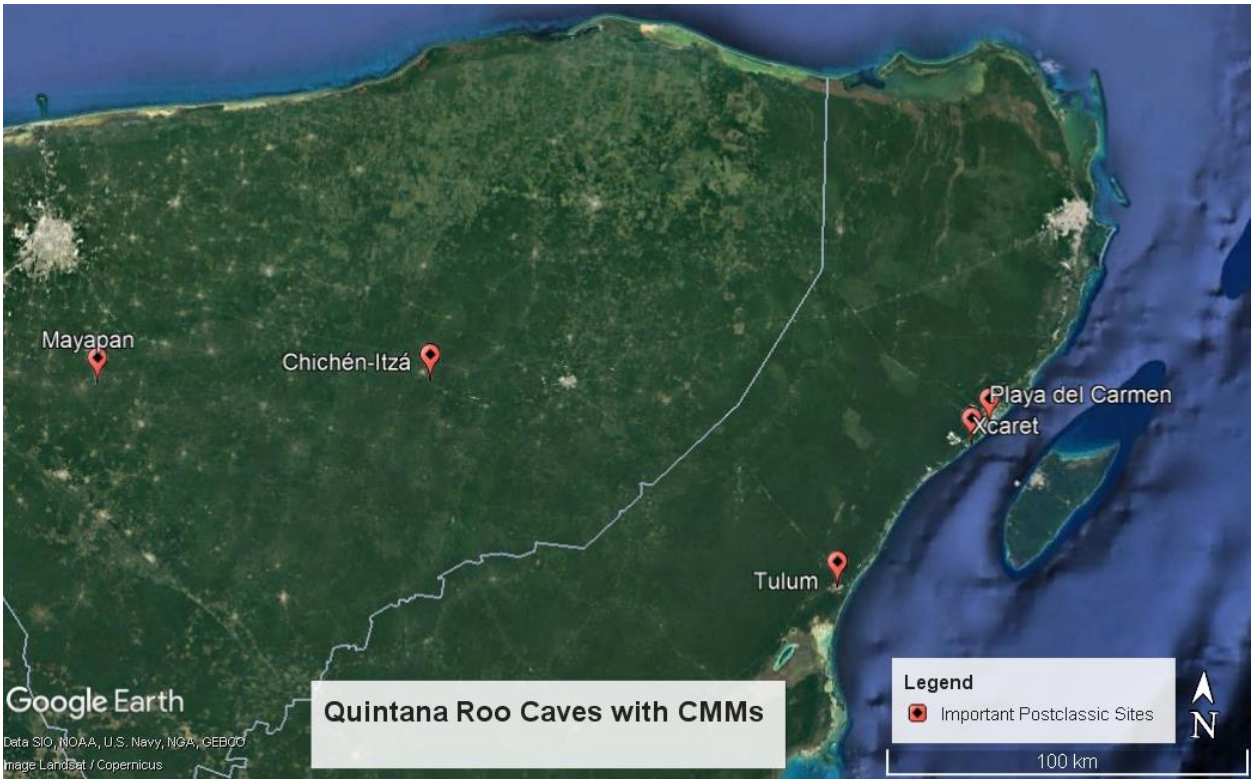

Figure 3.2.1: Important Postclassic Sites

The beginning of the Postclassic Period (AD 1100- AD 1500) is marked by the decline of Maya kingdoms in the southern lowlands at the end of the Classic Period (Aimers 2007; Andrews et al. 2003). However, the decline from the Terminal Classic to the Postclassic was not rapid nor is it easy to quantify. The reasons for the abandonment of previously important sites have been the subject of scholarly debate (e.g., Demarest et al. 2005) and range from wartime to droughts to climate changes brought on by volcanos and hurricanes (Aimers 2007). The abandonment of these Classic period sites did not happen as rapidly as previously thought nor did the Maya abandon every site (Andrew et al. 2003:151). In fact, many coastal sites of the Yucatán continued to host Maya populations after the supposed collapse (Andrews et al. 2003:151). The collapse of the Classic period polities must be addressed on a regional scale or

even a site-by-site scale, as monocausal explanations will never suffice to explain such a complex process. (Aimers 2007:332).

During the Postclassic as mentioned above, monumental architecture was scaled back. That being said, there were uniting features of the Postclassic, in particular the Late Postclassic, including new cultural centers in the Northern Lowlands including Mayapan, Ek Balam, Playa Del Carmen, Coba, Xcaret, Tulum, Cancun, and Cozumel (Andrews 1993:38). This was due to their location near water which enabled trade to continue with the southern lowland and central Mexico leading to a blending and acceptance of many central Mexican themes such as the feathered serpent god Quetzalcoatl or Kukulcan (Taube 1992), the emergence of the Chen Mul Modeled Type Effigy censer religious unity (Mibrath 2008:104), mural art, and architecture (Andrews 1993:50-52).

The Northern Maya Lowlands during the Postclassic had a thriving trade network which was enabled by their mass production and accumulation of goods (Sabloff 2007:19-20). Trade was able to thrive in these areas due to the close proximity to the coast and was undertaken in large canoes (Sabloff 2007:20). The trading routes were as close as the Southern Lowlands and went as far as central Mexico and Oaxaca (Sabloff 2007:20) leading to the blending and adaptation of central Mexican themes like Quetzalcoatl. Quintana Roo, in addition to hosting several Postclassic sites which continued into conquest also had a distinct architectural style called Costa Oriental (Hodell et al. 2007:217). This style was characterized by the limestone blocks laid and covered in a thick layer of stucco and are generally simple moldings (Milbrath and Lope 2009:585). The architecture was also on a smaller scale and were painted a variety of bright colors (Andrews 1993:50). Another unifying feature of the Postclassic sites of the east coast of Quintana Roo is the mural art found. These murals often include a blending of Maya and

central Mexican themes (Sabloff 2007:21). The murals are found inside structures on the walls and on the exterior walls as well (Farriss et al. 1975:7-9).

Though the Postclassic originally was viewed as a decline from the monumental and elite heavy Classic Period, it is apparent the Postclassic had unifying features and continued to support a people for hundreds of more years up until contact. The simpler architecture and departure from elite admiration can be contributed to a changing of hierarchical structure and a heavier emphasis on merchants due to the increase in trade (Aimers 2007; Andrews 1993). Mural art seems to have been another aspect picked up from trade and was implemented into the existing decorative systems (Farris et al. 1975).

3.3 Mayapan

Figure 3.3.1: Map of Yucatán Peninsula showing Mayapan's Location

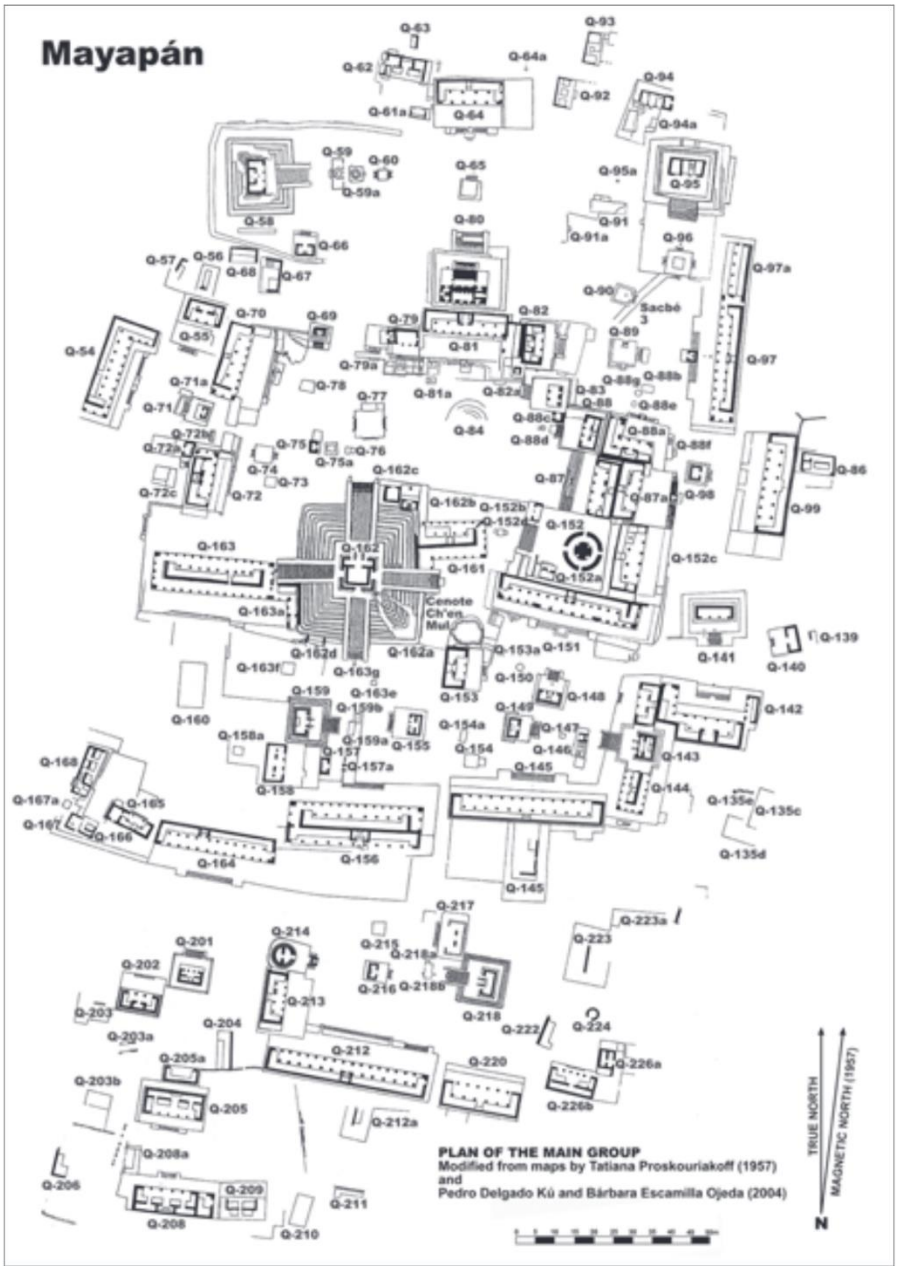

Figure 3.3.2: Mayapan's center (after Masson and Peraza Lope 2014: fig. 2.10)

One of the powerhouses of the Postclassic period (AD 1100- AD 1500) Mayapan (Figure 3.3.1 and Figure 3.3.2) rose to prominence in AD 1200 and lasted until AD 1450 (Masson and Peraza Lope 2014:1). Considered one of the "most densely nucleated cities in Maya history" (Masson and Peraza Lope 2014:13) the city was walled off and enjoyed political, religious, and

stylistic dominance during its 250-year reign (Masson and Peraza Lope 2014). The city was established in one of the driest places in the Yucatán area seeing only 1 meter of rainfall and exceeding 100 degrees Fahrenheit in the summer months (Masson and Peraza Lope 2014:15). This area is noted for its number of cenotes which would have been used for drinking water (Masson and Peraza Lope 2014:15) but were also valued for their religious significance (Brady and Ashmore 1999; Pugh 2005; Rissolo 2001, 2005a, 2020). Mayapan was controlled by a "confederacy-style council government" in place of divine rulership (Masson and Peraza Lope 2014:25).

The merchant class dominated the Postclassic period and the importance of trade led to the rise of mass production- like CMMs- and had a "well-developed system" of trade in place (Masson and Peraza Lope 2014:269; Sabloff 2007:16-17). This trade network came from long-distance and regional networks in place with every site contributing different goods (Masson and Peraza Lope 2014:269-275). Inside the urban core of Mayapan, a surplus of goods was achieved by part-time crafting at the domestic household level (Masson and Peraza Lope 2014: 291-94). These "crafting houses" made surpluses of shell, stone, and pottery goods, were not restricted to poorer houses and enjoyed "greater affluence than houselots" that were not engaged in surplus production (Masson and Peraza Lope 2014: 294).

While religious items,- including CMMs,- were made near and at elite residences (Masson and Peraza Lope 2014: 118-19), they were used at a variety of different halls, shines, and temples (Masson and Peraza Lope 2014:426-27). Rarer CMMs were concentrated at specific locations with more common gods-- like Itzamna-- were spread-out throughout the halls, temples, and shrines at Mayapan (Masson and Peraza Lope 2014:426). CMMs would have been used to celebrate calendric occasions with different Maya gods needed for different calendrical

rituals (Masson and Peraza Lope 2014:427). These calendric rituals would have used any number of CMMs resulting in their final resting place in caches in halls or at the bases of temples (Masson and Peraza Lope 2014:228). Some caches of CMMs were carefully placed, the fragments mingled and buried (Masson and Peraza Lope 2014:145) However, another ritual the CMMs were used for at Mayapan were termination rituals (Masson and Peraza Lope 2014: 117-130). House Y-45a was abandoned, its CMMs completely smashed, then filled in (Masson and Peraza Lope 2014:116). The termination rituals took place at times of turmoil and upheaval and one way to completely abandon the halls, temples, and shrines was the smash, bury, and/or burn the CMMs associated with those specific buildings (Masson and Peraza Lope 2014: 531-32).

3.4 East Coast of Quintana Roo

Located in modern day Mexico, Quintana Roo is situated on the eastern side of the Yucatán Peninsula. Falling within one of the main hurricane pathways, Quintana Roo sees heavy rainfall in September with the annual rainfall ranging from 100 to 200mm (Hodell et al. 2005:217). The eastern part of Quintana Roo is located on a “normal fault complex” and the present coastline carved into the Pleistocene shelf margin (Smart et al. 2006:106). The east coast also features coves which are from the mixing of saltwater and the freshwater from springs further inland (Smart 2006:106). The climate is tropical, with tropical forests dominating the landscape where slash and burn agriculture has not been applied (Smart et al. 2006: 107).

Populations of Quintana Roo have ebbed and flowed since the Middle Preclassic period (c. 400 BC), but most coastal sites in Quintana Roo were still densely populated during the Postclassic (Leyden et al. 1998:114). The dominance of the Late Postclassic architecture suggest this was the most populous time for the east coast (Andrews IV and Andrews 1975:1). Sites located along the east coast vary in size and the number of structures found at each site range

from one to 50 or more (Andrews IV and Andrews 1975:1). Sites located closest to the ocean are positioned near coves and would have been used as natural harbors for the protection they offer (Andrews IV and Andrews 1975:1).

Quintana Roo boasts a heavy karst environment making it the ideal location for the formation of caves (Smart et al. 2006:106). However, this karst nature of the land makes ground water scarce and generally restricted to cenotes (Rissolo 2005a: 345). The presence of water in caves would have special connotations due to its scarcity and the already significant implications of finding water inside sacred caves. Water originates from caves (Stone 1995:39-44). The abundance of caves found along the east coast of Quintana Roo and the number of cenotes that dot the landscape create an opportune place to settle for the Maya as all these variables make a cosmically ideal landscape.

4 CHAPTER FOUR: CHEN MUL MODELED TYPE EFFIGY INCENSE BURNERS

4.1 Introduction

The Chen Mul Modeled Type effigy incense burner is a product of the Postclassic (Masson and Peraza Lope 2014; Milbrath and Peraza Lope 2009; Milbrath et al. 2008; Rice 1999, Russell 2000; Smith 1971a; Thompson 1957). Starting with the history of full-bodied incense burners (Rice 1999), Chapter Four delves into the CMM, their origin, spread, description, and grouping (Masson and Peraza Lope 2014; Milbrath and Peraza Lope 2009; Milbrath et al. 2008; Smith 1971a; Thompson 1957). The various gods the CMMs are modeled after are a key component of the research and a description of each god found in CMM form is discussed (Masson and Peraza Lope 2014; Taube 1992; Thompson 1957). The most commonly found CMM gods are discussed as well (Masson and Peraza Lope 2014; Thompson 1957). Images of CMMs follows at the end of this chapter.

4.2 Full-Bodied Incense Burners

There are a great number of incense burners found throughout the Maya lowlands and highlands (Rice 1999). From plain bowls and shallow dish incense burners to full-bodied effigy censers they are used in a variety of different contexts. Full-bodied censers can be traced back to the Cehpech times (AD 800- AD 1000) occurring in the Puuc Slate Ware at Xcaret (Smith 1971a:255). Image or effigy incense burners are particular to the Maya lowlands and appear in the Late Preclassic period (Rice 1999:40-41). These types of incense burners are “modeled and/or molded” with the censer vessel attached to the back of the effigy (Rice 1999:32). The effigy censers can be full-figured, meaning the entire body of the idol is sculpted, or partial-figured, meaning there is only part of the idol represented (Rice 1999:32). Rice (1999:32) explains the vessels attached to the effigies can be jars, vases, or bowls. While copal was the

most common offering burned inside the censer vessels, a number of other offerings have been found including the sap of trees, maize, human blood, and even water (Rice 1999:28). Due to the nature of burning these offerings, the incense burners are connected to fire (Rice 1999:28). It is understood that when the offerings were burned, they created large black clouds of smoke, which would represent the dark rain-carrying clouds the Maya believed manifested in caves from the rain gods connecting these effigies to the rain (Rice 1999:28).

4.3 Chen Mul Modeled Type Censer Origin and Subsequent Spread

Focusing on the archaeological site of Mayapan, modeled effigy censers first appear in the Hocaba-Tases Ceramic Complex and last until the Tases Ceramic Complex, lasing from AD 1250- AD1450 (Smith 1971a:40,135-36). Smith (1971a:74) describes effigy censers as "partly molded and partly moldmade." The effigy censers are in a standing position with the effigy created separately from the incense vessel and then attached later (Smith 1971a:74). Smith (1971a:74) indicates it is clear from the sheer quantity of Chen Mul Modeled Type censers they were a part of a massive assembly line. In the Hocaba-Tases Ceramic Complex alone, effigy censers total 28.7% of all sherds found while the Chen Mul Modeled Type in Tases Ceramic Complex is an astonishing 77.2% of all the sherds collected (Smith 1971a:74). In both the Hocaba-Tases and the Tases Ceramic Complex, the ware is Mayapan Unslipped, specifically the Unslipped Panaba Group, which means they have a coarse texture and are gray in color with a cinnamon core or are a solid cinnamon color (Smith 1971a:23). Smith (1971a:23) notes the surface finish is "normally fairly evenly smoothed, sometimes imperfectly smoothed, never polished." The Chen Mul Modeled Type censers also have vents in the floor or sidewalls, showing traces of burning, and sometimes have traces of copal (Smith 1971a:104).

While the archaeological site of Mayapan is unquestionably the center of the Chen Mul Modeled Type effigy censers, they are found throughout the Yucatán Peninsula (Milbrath et al. 2008; Rissolo 2004; Masson and Peraza Lope 2014). Due to the widespread use of the Chen Mul Modeled censers in this region, it is evident the censers indicate a form of "religious unity" (Milbrath et al. 2008:104). Milbrath et al. (2008:104) seek to place all effigy censers belonging to the Late Postclassic found throughout the Yucatán into a single Chen Mul Modeled ceramic system based on the dominance of the Mayapan effigy censers, where they would be categorized based on "broad similarities and treatment." Secondary classification would come from any stylistic elements that can be used for type distinction.

Though Mayapan was the birthplace of the Chen Mul Modeled Type, forming the Chen Mul Modeled ceramic systems would expand upon the censers found throughout the Yucatán Peninsula including sites in Quintana Roo, northern Belize, Lamanai, and Champoton (Milbrath et al. 2008). By placing the censers found in these areas in a ceramic system, they would be grouped based on broad similarities found in censers in these regions (Milbrath et al. 2016:105). Censers found in northern Belize dominate the ceramics found in the Postclassic period (Milbrath et al. 2008:106). They are commonly found broken, but they were not broken at their final resting site; they seem to have been broken before reaching their final resting places in northern Belize (Milbrath et al. 2008:106). Censers at Lamanai, a site located further south in Belize, were also ritually broken off-site and then deposited at Structure N9-56; they were large censers, smaller than the large and medium size group at Mayapan, with slight variations on how the deities were modeled (Milbrath et al. 2008:107). Unlike the bent elbows of the Chen Mul Modeled Type at Mayapan, the censers of Lamanai have arms molded into a raised position with well-formed fingernails (Milbrath et al. 2008:107). On the other side of the Yucatán peninsula,

located to the southwest of Mayapan, the site of Champoton seems to have been in what Smith (1971a:256) calls “modest contact” with each other. Ninety-six percent of the Postclassic effigy censers found in Champoton have unslipped ware, like that of the Chen Mul Modeled Type at Mayapan (Milbrath 2008:108). The far-reaching influence of the Mayapan Chen Mul Modeled Type effigy censer demonstrates the popularity the censers enjoyed.

4.4 Gods of the Postclassic

The pantheon of the Postclassic Yucatán gods is a combination of prototype gods carried on from the Classic period and readily accepted gods from outside the Maya region. The Dresden, Parris, and Madrid codices are an insight to the wide range of gods found in the Postclassic (Taube 1992:1). The Late Postclassic Codex Dresden offers the most information of the three with detailed descriptions of names and associated characteristics of each god (Taube 1992:2). Although the Paris and Madrid codices also offer significant information, the Codex Paris is in poor condition with most of the edges worn off or faded while the Codex Madrid is riddled with scribal errors and was poorly executed at its time of creation (Taube 1992:3). Mural paintings, sculptures, screenfolds, and Chen Mul Modeled effigy incense burners provide more insight to the gods of the Postclassic Yucatán (Taube 1992:4).

For the purposes of this thesis, only the gods most commonly found in Chen Mul Modeled effigy form will be discussed in depth[4]. Thompson (1957) in his report on Mayapan effigy censers sorts the deities into twelve different groups, Itzamna, Chaak, Merchant Gods, Whisker Gods, Xipe Totec, Tlazolteotl, Maize God, a possible Venus God, Quetzalcoatl or, Kukulcan, the Death God, an Old deity with a cleft chin, and a various gods group. According to

[4] For a complete and thorough depiction and discussion of all gods, please consult Karl Taube’s (1992) The Major Gods of Ancient Yucatán.

Masson and Peraza Lope (2014) in their study of urban life at Mayapan, they have found several different CMMs in various ritual placements. In their grouping, Masson and Peraza Lope (2014:440) have broken the 237 identified CMMs into 27 different groupings. Of those 27 groupings, all twelve of Thompson's (1957) are found with the exception of not grouping Quetzalcoatl with Kukulcan and instead grouping Kukulcan with the Maize God. In their groupings, the CMMs are sorted by percent with 3.0% for the Old God, 6.3% for Whiskered Gods, 5.5% for Merchant Gods, 13.1% for Itzamna, 16.5% for Chaak, 0.8% for Maize God or Kukulcan, 3.0% for Xipe Totec, 0.8% for Tlazolteotl, 7.2% for Death head, and 0.8% for a Venus god (Masson and Peraza Lope 2014:440). Using Taube's (1992) comprehensive assemblage of the Postclassic Gods, both foreign and domestic, God A and A', God B, God D, God E, God L, and God M are discussed as gods native to the Yucatán with Classic period roots. Xipe Totec, Tlahuizcalpantecuhitli, Tlazoltetl, and Quetzalcoatl represent foreign gods introduced to the Yucatán.

4.4.1 God A and God A'

Figure 4.4.1: God A or Death God's Head (after Smith 1971b: fig. b, 7)

God A (Figure 4.4.1) and A' are both associated with death (Taube 1992:11-17). While God A has a skeletal appearance easily identified, God A' is identifiable by the "division sign on his cheek and a blackened region around his eye, usually a broad vertical band" (Taube 1992:14). God A' also has "a pair of Akbal eyes, a sign of darkness above the vertical band on his eyes and a femur in his hair" (Taube 1992:14). God A has "protruding ribs, rickety limbs, and a fleshless grinning skull" his appearance in both the Classic period and the Postclassic Period (AD 1100-1500)) (1000 AD - 1500 AD) are "studies in decay" (Taube 1992:11). Along with these signs of decay, God A also has large black spots and a bloated belly further showing his advanced state of decomposition (Taube 1992:11). God A is dressed in "death eyes" which are

circular adornments, representing eyeballs usually places on his head, collar, or featured on other elements on his clothes (Taube 1992:11-13). As far as powers, God A seems to be the god of flatulence and decomposition, further, he does not seem to have been well respected and was often portrayed in such a way as to provoke a comedic effect instead of fear (Taube 1992:13-14). In contrast to God A, God A' was not used for comedic effect and was often shown in an act of self-decapitation and was associated with violent deaths and sacrifices (Taube 1992:14). It seems God A' was impersonated in rituals and the act of self-decapitation was also acted out with bloodied stripes of paper taking the place of streams of blood flowing from the neck (Taube 1992:15-16).

4.4.2 God B

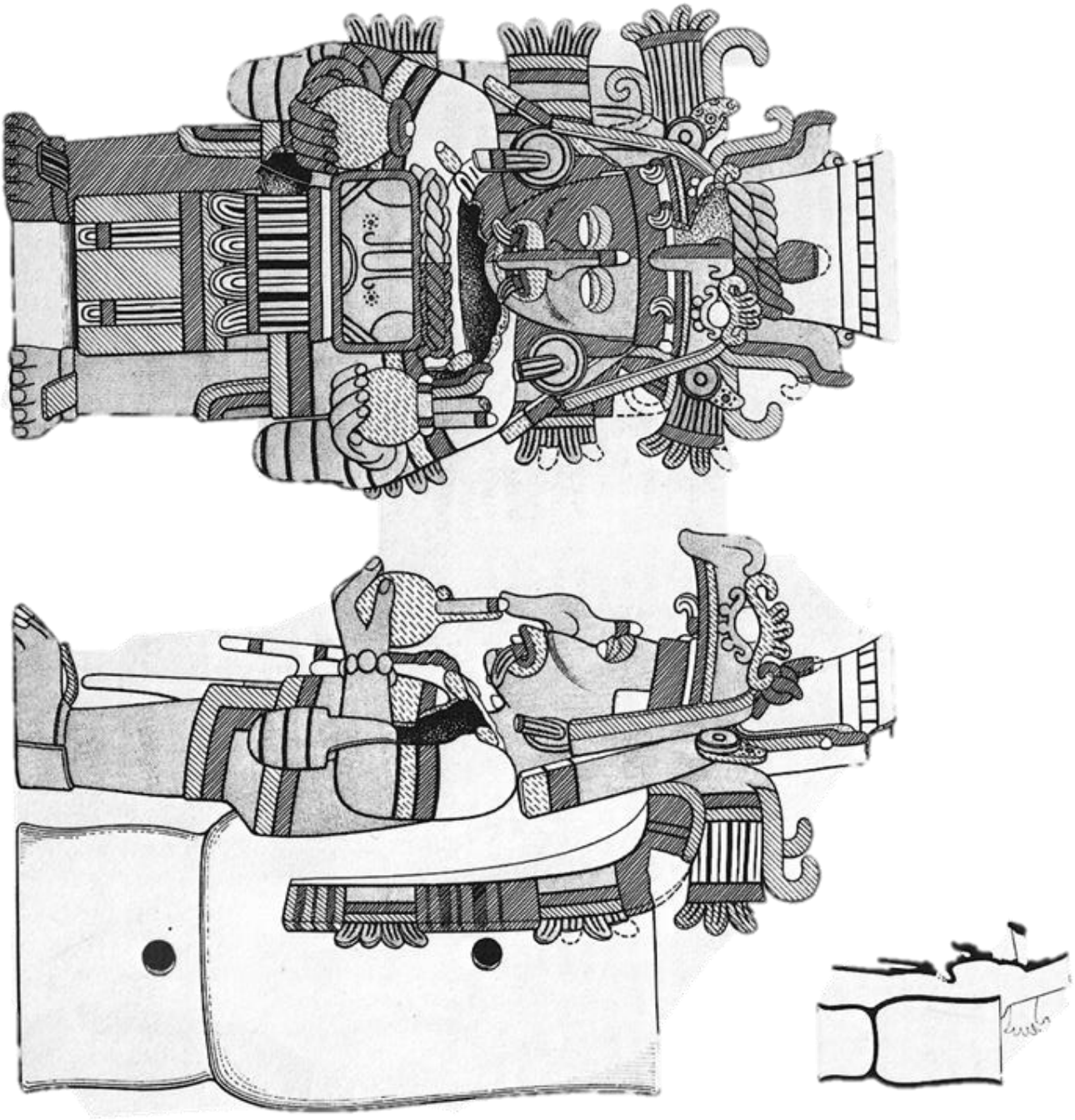

Figure 4.4.2: God B or Chaak (after Thompson 1957: fig. 3f)

God B, who has been identified as Chaak (Figure 4.4.2), is one of the most important and powerful gods of the Yucatán (Taube 1992:17). God B is one of the oldest gods of the Maya pantheon and can be found in the Early Classic Maya (Taube 1992:17). In the Postclassic, Chaak was depicted with a "long pendulous nose" and is usually "found wielding axes or serpents" (Taube 1992:17). He is also a quadripartite god, meaning he is represented in the four directions and has four colors associated with him (Taube 1992:17). In addition to being the god of rain and lightning, wielding serpents and axes symbolic of those elements, Chaak is also closely associated with war and sacrifice (Taube 1992:24). Classic and Postclassic Maya periods frequently have Chaak holding a lightning axe and a shield for battle (Taube 192:24). In Postclassic times "assistants of human sacrifices were called Chaaks" indicating his close ties with sacrifice (Taube 1992:24).

4.4.3 God D

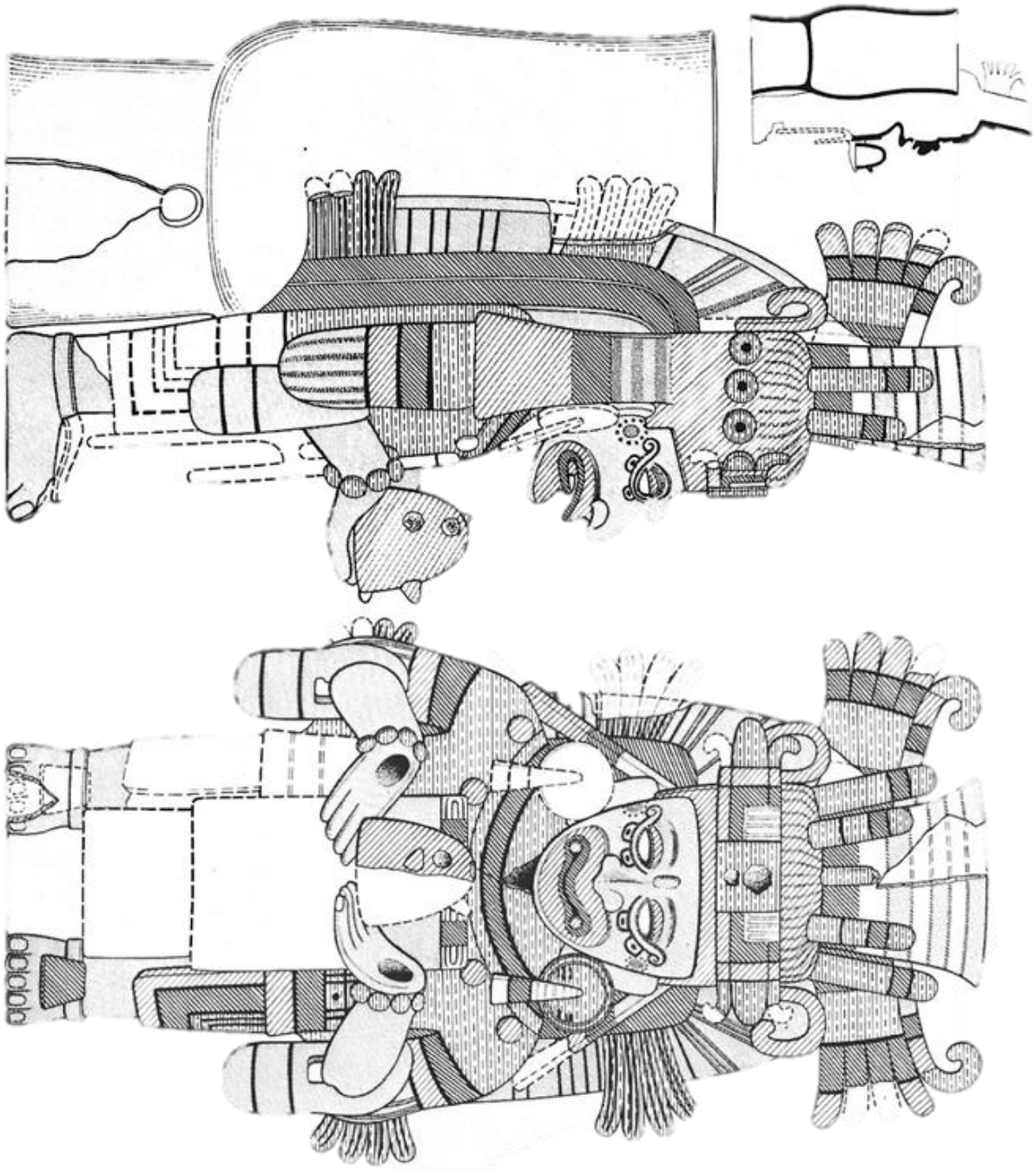

Figure 4.4.3: God D or Itzamna (after Thompson 1957: fig. 3e)

God D is Itzamna (Figure 4.4.3) who is regarded as the most important god of the Classic and Postclassic Periods (Taube 1992:31). For his depiction, Itzamna in the Classic and Postclassic is an old god and has a “tasseled Akbal device upon the brow” (Taube 1992:31). The Akbal device is a black obsidian mirror and is used for divination (Taube 1992:31, 33). This follows with Itzamna’s name as the *itz* in his name means divination or witchcraft (Taube 1992:33). In addition to *itz*, na “signifies to contemplate, understand, or divine” making Itzamna the god of wisdom and knowledge (Taube 1992:33). Itzamna has large square eyes and is regularly shown with serpent wings taken from the Principal Bird Deity (Taube 1992:36). He is a god of the heavens and the earth and is identified with the world tree along with the Principle Bird Deity in the Classic and Postclassic Periods (Taube 1992:36). In the Late Postclassic, Itzamna is closely associated with caimans, either positioned inside a caiman or with a caiman headdress (Taube 1992:37). These associations make God D Itzamna, the aged god of wisdom, knowledge and divination who is commonly depicted with a Akbal, serpent wings from the Principal Bird Deity and in the Late Postclassic caimans.

4.4.4 God E

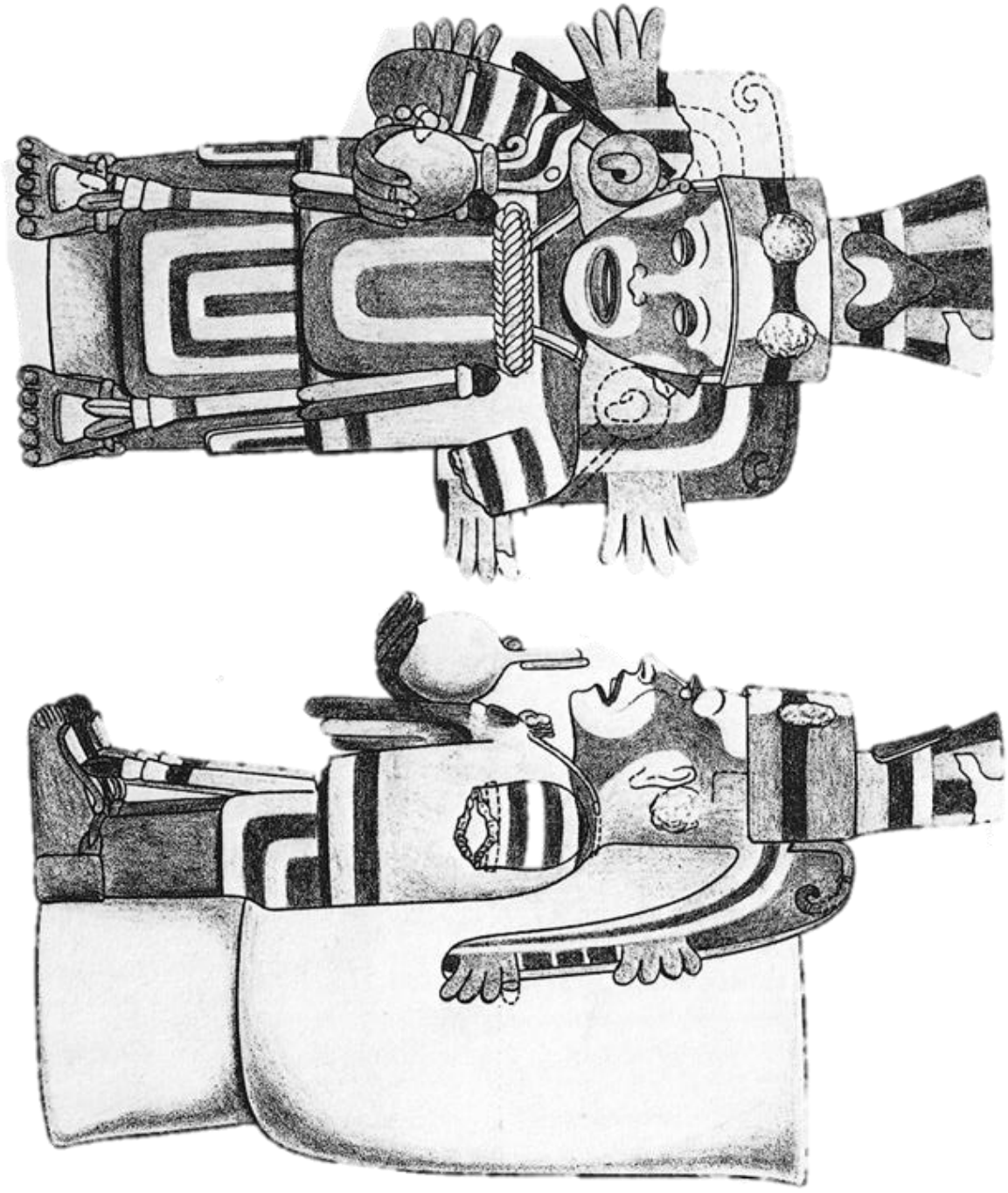

Figure 4.4.4: God E or Maize God (after Thompson 1957: fig. 3c)

God E is the Maize God (Figure 4.4.4). Commonly portrayed with a maize cob sprouting out of his head and later in the Postclassic with a zig-zagged line running down his face (Taube 1992:41). Another feature of the Postclassic Maize god is the maize cob with rectangular black markings sprouting from the crown of his head flows back over the head and curls over the cheek (Taube 1992:41). The rectangular black markings are similar to that of God C, who is the god of sacredness, and their close association is because of the sacredness of maize in the Maya world (Taube 1992:41). God E is very common in the Postclassic Period with frequent depictions of him diving and with maize cobs sprouting from his head as well as his arms as well as the zig-zagged line running down his face (Taube 1992:41). The diving God E is usually found with some variation of the "verbal compound [sic] 'he planted it'" illustrating the link God E has with agriculture (Taube 1992:41). Another component of the Postclassic God E is the association with sacrifices and death mirroring the life cycle of maize with the end of the cycle represented with a decapitated or disemboweled God E who also features closed eyes (Taube 1992:44).

4.4.5 God L and God M

Figure 4.4.5: God L or Merchant God (after Thompson 1957: fig. 1h)

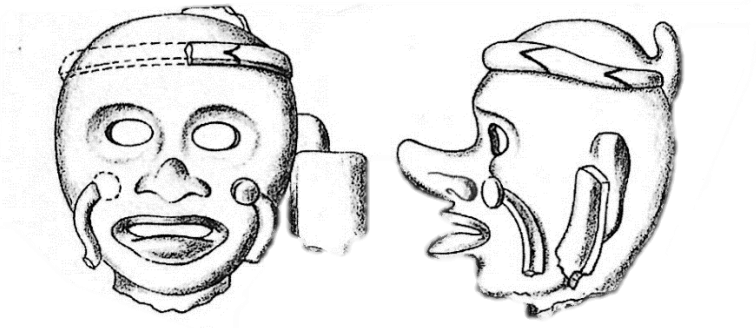

Figure 4.4.6: God M or MerchantGod with straight nose (after Thompson 1957: fig. 4h)

God L is a dual functioning god (Figure 4.4.5). In both the Classic and Postclassic Periods, God L has a black body and is aged with a large-brimmed hat featuring a Moan screech

owl on top (Taube 1992:79). In the Classic period, God L was portrayed with square eyes, jaguar attributes, and smokes a cigar (Taube 1992:81). He is also depicted as a warrior with a shield and a spear-thrower, or staffs (Taube 1992:79). In some instances, God L swapped out his weapons for a sacred bundle or a net-covered bundle indicative of Mesoamerican merchants (Taube 1992:81). These bundles are occasionally paired with a quetzal representing precious goods (Taube 1992:81). Another merchant staple is the chicahuaxtli rattle staff which God L carries at times (Taube 1992:81). The association with Moan screech owls, staffs, and carrying bundles continues into the Postclassic with codices featuring these elements in place of merchants (Taube 1992:81). The other side of God L's dual nature is a god of the underworld and possibly, rain (Taube 1992:81). The Moan screech owl is closely identified with the underworld and the Cimi death sign (Taube 1992:79, 81). Further, the black color of God L suggests a strong relationship with rain and lightning as dark clouds are thought to hold rain and are mimicked in rituals using copal smoke (Taube 1992:84).

God M is another merchant god (Figure 4.4.6). One of the most recognizable gods with a black body, Pinocchio-like nose, red lower lip, and U-shaped markings around his eyes (Taube 1992:88). Taube (1992:88) calls him ugly and explains because he is so ugly and so strikingly different looking than the rest of the canonically beautiful Maya gods, he is most likely a Maya adaptation of the foreign Yacatecuhtli, a Central Mexican merchant god. God M has also been labeled as the Yucatán god Ek Chauh (Taube 1992:88). Ek Chauh carries a spear and a merchant pack, illustrating the militant aspect and dangers of the merchant and their lifestyle (Taube 1992:88). Ek Chauh was closely associated with cacao, a form of currency in Mesoamerica, which could explain his black skin, as cacao beans are black (Taube 1992:89). In the Postclassic, God M sometimes features a flowing beard and snaggle tooth (Taube 1992:90). Due to the black

skin of God M, he is frequently confused and intermingled with God L and black Chaaks (Taube 1992:90). Taube (1992:90) explains God L seems to be the Classic period version of God M, who was introduced in the Postclassic, leading to their similarities and blending. This link is further supported by various images of God M with jaguar parts and markings (Taube 1992:92).

4.4.6 Tlahuizalpantecuhtli

Figure 4.4.7: Tlauizcalpantecuhtli (after Thompson 1957: fig. 3a, 3b)

Moving on to the foreign gods brought into the Maya pantheon, Tlahuizcalpantecuhtli (Figure 4.4.7) is a Venus god who has a pattern of squares on their face and is usually presented in a skeletal form (Taube 1992:120). A column in Chichen Itza from the Early Postclassic has a skeletal Tlahuizcalpantecuhtli holding their weapon of choice, an atlatl (Taube 1992:120). This Tlahuizcalpantecuhtli has the Ehecatl-Quetzalcoatl cut conch "wind jewel" over their thigh which further leads to the belief that Ehecatl-Quetzalcoatl was transformed into a skeletal version of Tlahuizcalpantecuhtli in the Late Postclassic (Taube 1992:120). The Late Postclassic

version of Tlahuizcalpantecuhtli sports a headdress made of short and long feathers with the longer feathers sprouting out of a band of shorter feathers (Taube 1992;120).

4.4.7 Xipe Totec

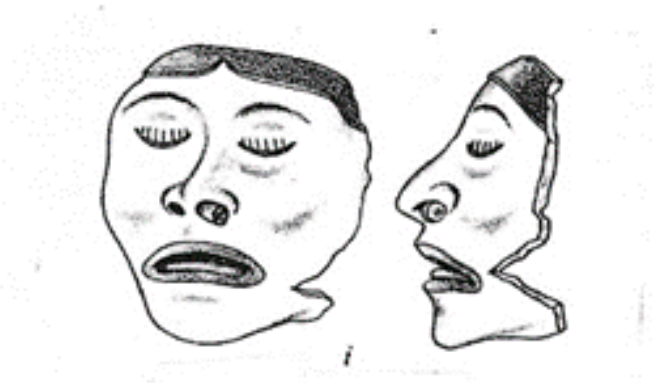

Figure 4.4.8: Xipe Totec (after Smith 1971b: fig. 32i)

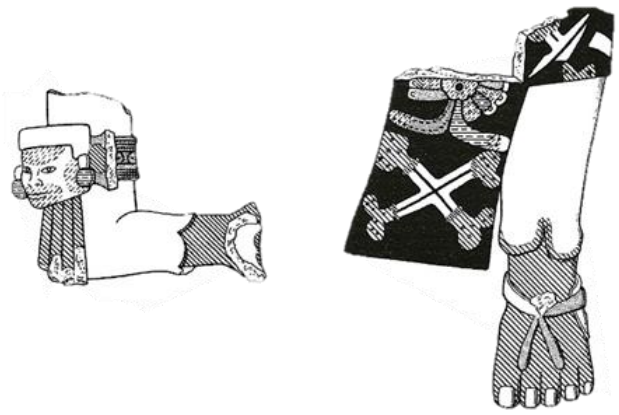

Figure 4.4.9: Xipe Totec Flesh Suit (after Thompson 1957: fig. 2a, 2b)

Xipe Totec (Figure 4.4.8 and Figure 4.4.9) is the god of precious metal workers (Taube 1992:122). Xipe Totec has closed eyes and an open, slack mouth, he also wears the skin of flayed individuals (Taube 1992:121-122). Golden masquettes of Xipe Totec found at Chichen Itza are found with cross-like symbols over their eyes which are the Aztec symbol for gold (Taube 1992:122). Xipe Totec was also the Aztec god of goldsmiths mirroring his role as the god of precious metal workers in the Yucatán (Taube 1992:122). These gold masquettes more than

likely are a connection to the “golden garment of human skin” (Taube 1992: 122) Xipe Totec wears.

4.4.8 Tlazoleotl

Figure 4.4.10: Tlazolteotl (after Thompson 1957: fig. 2c)

The Central Mexican or Veracruz goddess of the earth and fertility, Tlazolteotl (Figure 4.4.10) can be identified by the black marking around her mouth (Taube 1992:122). Taube (1992:122) explains the blackened mouth area is a diagnostic tool dating back to the Late Classic which continues into the Postclassic. Along with the mouth, the U-shaped symbol on her brow is commonly used to identity Tlazolteotl (Taube 1992:122). There is some debate over whether this U-shaped symbol represents cotton or the crescent moon, but nevertheless, the U-shape symbol is a consistent part of Tlazolteotl’s costume (Taube 1992:122).

4.4.9 Quetzalcoatl or Kukulcan

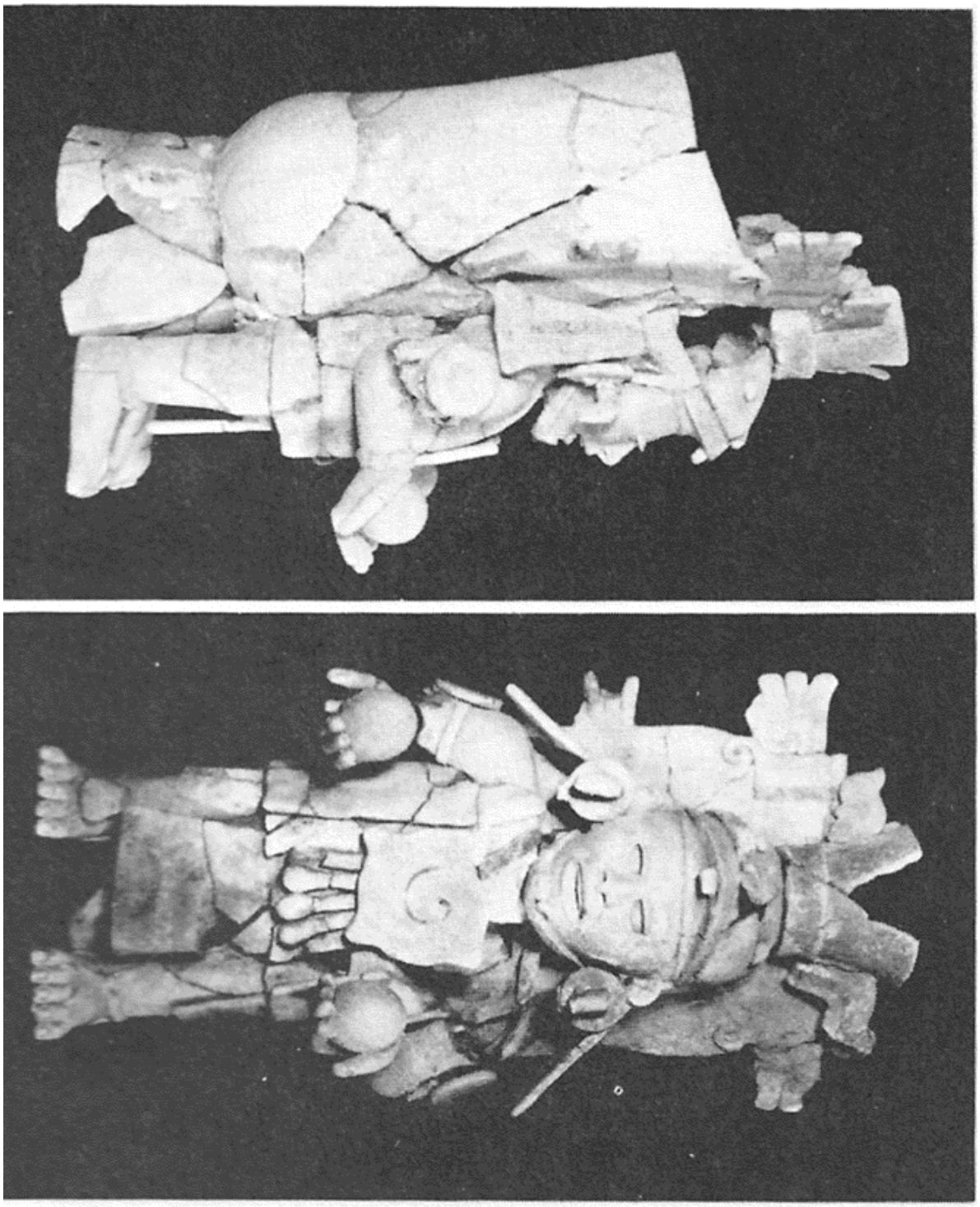

Figure 4.4.11: Quetzalcoatl or Kukulcan (after Thompson 1957: fig. 3a, 3b)

The last foreign god introduced to the Yucatán discussed in this thesis is Quetzalcoatl (Figure 4.4.11). Most commonly referred to as Kukulcan in the Yucatán, the feathered serpent seems to have close ties with water and fertility (Taube 1992:136, 140). Quetzalcoatl first appeared at Chichen Itza from the west and quickly spread throughout the Yucatán, appearing in both zoomorphic and anthropomorphic form (Taube 1992:136). Though it is more common to find him in zoomorphic form, the anthropomorphic form of Quetzalcoatl seems to reflect political titles while the zoomorphic form is closer to water and fertility (Taube 1992:140). Quetzalcoatl and feathered serpents in general, at Chichen Itza have some connection to stars, especially Venus (Taube 1992:136). The star connection with feathered serpents is found throughout the American Southwest, indicating this idea originated at a common place, likely Veracruz, or Central Mexico (Taube 1992:136). Regardless of his origin, Quetzalcoatl is found throughout the Yucatán with and without stars, in both zoomorphic and anthropomorphic form.

4.5 Classification Groups and Description

The censers themselves are divided into two groups; the large and medium size group and the small size group, with most censers belonging to the large and medium grouping (Smith 1971a:210-212). Chen Mul Modeled Type effigies were usually painted in a variety of colors, including red, orange, yellow, blue, green, turquoise, white, and black (Smith 1971a:210). The large and medium size group were attached at “approximately the buttocks,” and have a hollow torso and head, with free-standing legs which are also hollow with the feet pointing forward with well-defined toes and toenails (Smith 1971a:210-211). The arms were bent at the elbow at a right angle with the palms facing upright, in a position perfect for the placement of offerings and sacrifices (Smith 1971a:210-211). There are four face mold types that were used to create a plethora of different Maya gods. These molds include the youthful face with a straight nose, the

old face with a hooked nose, the death face, and the “yellow mask of human skin” mold (Smith 1971a:211). In addition to different base face molds, noses, eyes, mouths, and chins were also important when crafting a particular deity. There are eight different nose groupings, the Chen Mul Modeled Type effigies feature (Smith 1971a:211). They also have eight different groupings for the various eyes used with the mouth usually open and one of three chins, normal, strong, or cleft (Smith 1971a:211-212). The small size effigy censers are not as large of a collection. They were also not as uniform in their manufacturing like the large and medium size group was. They were attached to an incense vessel on the back of the effigy, but they were not as detailed as the large and medium size grouping (Smith 1971a:212). They use the same colors as the large and medium group, but they had a white base coat under the paint (Smith 1971a:212). Unlike the large and medium size group, the small size group did not have a uniform presentation of their hands or feet (Smith 1971a:212).

Table 4:1: Different Face Related Molds used for CMMs

	Type 1	**Type 2**	**Type 3**	**Type 4**	**Type 5**	**Type 6**	**Type 7**	**Type 8**
Face Molds	Youthful, straight nose	Youthful, curving downward nose	Youthful, curved up "Pinocchio" nose	Old face	Old face, cleft chin	Mis. Not associated w/Itzamna	Death face	Yellow mask of human skin
Noses	straight	Nose w/bump	Downward curving nose	long	Curved up "Pinocchio"	Skeletal	flat	X
Eyes	natural	perforated	Just pupil	Heavy lid (old man)	Central punch for pupil	Bulging eyes (applique)	closed	X
Chins	normal	strong	cleft	X	X	X	X	X

Table 4:2: Identifying Elements and Features of CMM gods

	God A: Death God	***God B: Chaak***	***God D: Itzamna***	***God E: Maize God***	***God L&M: Merchant God***	***Venus God***	***Xipe Totec***	***Tlazoleotl***	***Quetzalcoatl or Kukulcan***
Eyes	Hollow eye sockets	Painted goggles	Heavy lidded w/EBs	Nor. eyes	U-shaped markings	Eyes w/pup	closed	Open, black outlined	normal
Mouth	Upper lip removed	Fangs w/teeth btwn	Toothless w/2 worn down molars	Open mouth, painted	Red lower lip	Open mouth w/teeth	Slack closed	Open w/black markings	Open; jag jaw
Nose	Missing nose	Trunk hanging to bottom lip	Nose w/bump	straight	Pino	Can app skel	straight	straight	straight
Age?	Age lines, prom. CBs, sunken eyes	No	No	No	No	No	No	No	No
ID Feat	Skel app.	Can be green; wht scroll w/circ under eye	Gold AM; wht scroll w/pendent circ under eye	ZZ lines dwn fc; maize sprt fr head	Bird HD; can be blk	Patt. of squr. on fc.	HSS	U-shp. Sym. On brow	Jag Helmet; jag elements

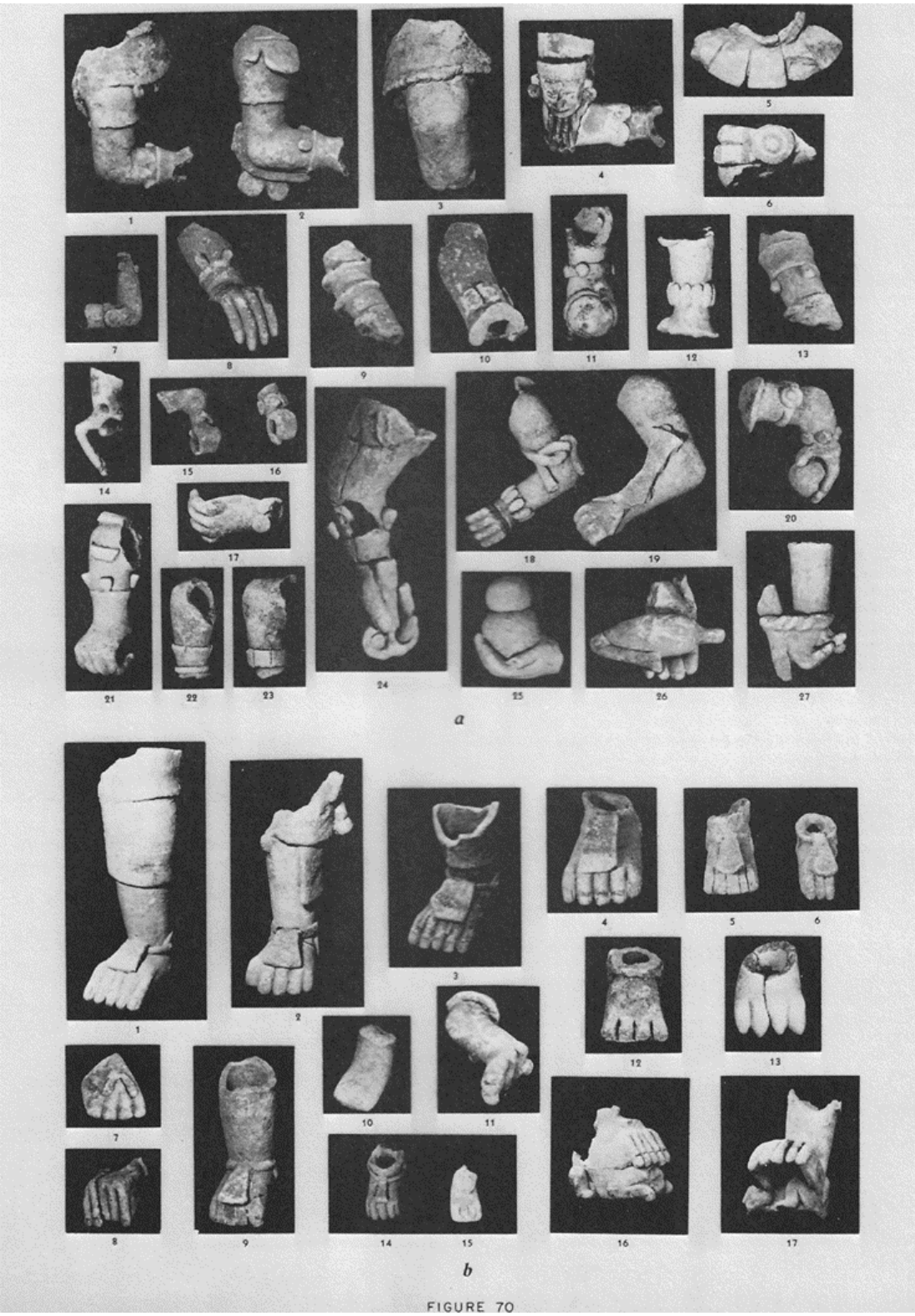

Figure 4.5.1: Well-formed CMM hands, arms, feet, legs (after Smith 1971b: fig. 70 a 1-27, b 1-17)

Regarding the large and medium size group, the molds were used to create different gods depending on how they were painted with other adornments were added to the effigy. Thompson (1957), one of the first to note the different variations of the censers, records twelve groupings of Maya gods the censers fall into; among them are, Itzamna, Chaak, Merchant gods, Whiskered gods, Xipe Totec, Tlazolteotl, the Maize God, a possible Venus god, Quetzalcoatl-Kukulcan, the Death God, the Old Deity with a cleft chin, and one grouping of various unidentified gods. All the gods listed are made from the four base molds of the Chen Mul Modeled Type censer. Of the gods listed, five groups are more heavily featured in collections studied by Masson and Peraza Lope (2014:436-347); Itzamna, Chaak, Merchant and Whisker gods, the Death god, and a grouping referred by Masson and Peraza Lope as the "young face male group" that could represent warriors or possibly maize gods.

4.6 Common Chen Mul Modeled Type Censer Gods

Thompson (1957:602-611) gives a very thorough description of each group. Itzamna has seven distinct characteristics, (1) a toothless mouth except for two worn down molars in the corner of the mouth, (2) an area around the mouth that is painted gold and includes the upper lip and chin, (3) prominent cheekbones and sunken eyes, (4) a hooked nose, with a bump on the bridge, (5) eyebrows and heavy-lidded eyes to show age, (6) "a white scroll with two pendant circles under each eye," (7) and sometimes featuring age lines curving from the nose to the eye (Thompson 1957:4). Chaak has five defining characteristics; (1) a trunk hanging from the nose to just over the upper lip, (2) a white scroll and circles underneath the eyes, (3) fangs at the corner of the mouth, (4) teeth between the two fangs, and (5) painted "goggles" around the eyes, usually green in color (Thompson1957:603). While Thompson (1957) does not group Merchant and Whisker gods in the same classification, Masson and Peraza Lope (2014:449) do group them

together, arguing Whisker gods are also Merchant gods, just with whiskers and other subtle variations. In Thompson's (1957:604) collection, the four Merchant god effigies he places into this category all have "peculiar decorative areas around the eyes;" he also includes an effigy figure from a cache pot, but it lacks this peculiar eye decoration. Three of the Merchant gods in his collection also have whiskers, and three of them have what he calls a "Pinocchio nose," which is a long, straight nose coming off the face, pointing forward with some of them also wearing bird headdresses (Thompson 1957:604). Like the Merchant gods, all the Whisker gods Thompson (1957:8-9) encounters have bird headdresses and whiskers. The Death god has three characteristics which are, (1) the upper lip is removed to reveal the teeth, sometimes the lower lip is removed as well, (2) the nose is missing, and (3) the eye sockets are hollow (Thompson 1957:610). The overall effect is that of a skull. The young face male group Masson and Peraza Lope (2014:436) refer to include both Maize gods and Kukulcan with their features resembling young males with the Maize gods usually depicted with flowers or maize. Kukulcan is harder to identify as he is intermixed with Quetzalcoatl, who has particular characteristics. When these characteristics are not present Thompson (1957:610) is hesitant to group these effigy censers found that resemble Kukulcan but lack most of the features of Quetzalcoatl together. These different deities were found in ritualistically important spaces and were undoubtedly used in ceremonies.

Masson and Peraza Lope (2014:426) in their study of urban life at Mayapan, argue that rare Chen Mul Modeled Type censers are concentrated at certain complexes while more common deities are found throughout Mayapan structures. The Itzamna censer is found evenly throughout the structures excavated (Masson and Peraza Lope 2014:444). Itzamna censers have been found in shrines, temples, houses, halls, and oratories at Mayapan, with four censers found at Elite

House R-86 (Masson and Peraza Lope 2014:444). Masson and Peraza Lope (2014:436, 445) group Chaak Chen Mul Modeled Type censers with Chaak cups making this grouping the largest collection of the censers found at 16.5%. Merchant and Whisker gods, when combined, make 26.7% of censers found and are found in temples, halls, houses, oratories, shrines, platforms, and sanctuaries (Mason and Lope 2014:450). Young faced male gods make up 25.5% and are found in temples, houses, halls, shrines, oratories, platforms, altars, and palaces with one young faced male being found in a Portal vault, and one being found in the Chen Mul cenote (Masson and Peraza Lope 2014:450, 454-455). Death god censers make up 7.4% and are found in halls, temples, shrines, oratories, regular residencies, and elite residencies (Masson and Peraza Lope 2014:450, 474).

Identification	*Number*	*Percent of 237*
Whiskered	15	6.3
Merchant	13	5.5
Old god	7	3.0
Itzamna	31	13.1
Chac (including cups)	39	16.5
Possibly Chac (fanged entity)	2	0.8
Maize god or Kukulcan	2	0.8
Death head	17	7.2
Death torso	1	0.4
Young males	28	11.8
Filed-tooth males	9	3.8
Male with bird headdress	9	3.8
Bird headdress fragment	6	2.5
Male with reptile headdress	2	0.8
Reptile headdress fragment	2	0.8
Helmeted male	1	0.4
Male with shield	2	0.8
Young female goddess	5	2.1
Old female goddess	4	1.7
Female body fragments	2	0.8
Monkey Scribe	4	1.7
Bird-beaked human (Ehecatl)	2	0.8
Venus	4	1.7
Fire god	1	0.4
Tzalolteotl	2	0.8
Xipe Totec	7	3.0
Diving figure	4	1.7
Other (perforated hair, scroll face, quetzal feather headdress, feline, intestinal sacrifice torso, nose plug figures, red face/blue cheek figure)	16	
Total identified	237	
Other/unidentified fragments	28	

Figure 4.6.1: Identified CMMs at Mayapan (after Masson and Peraza Lope 2014: table 7.4)

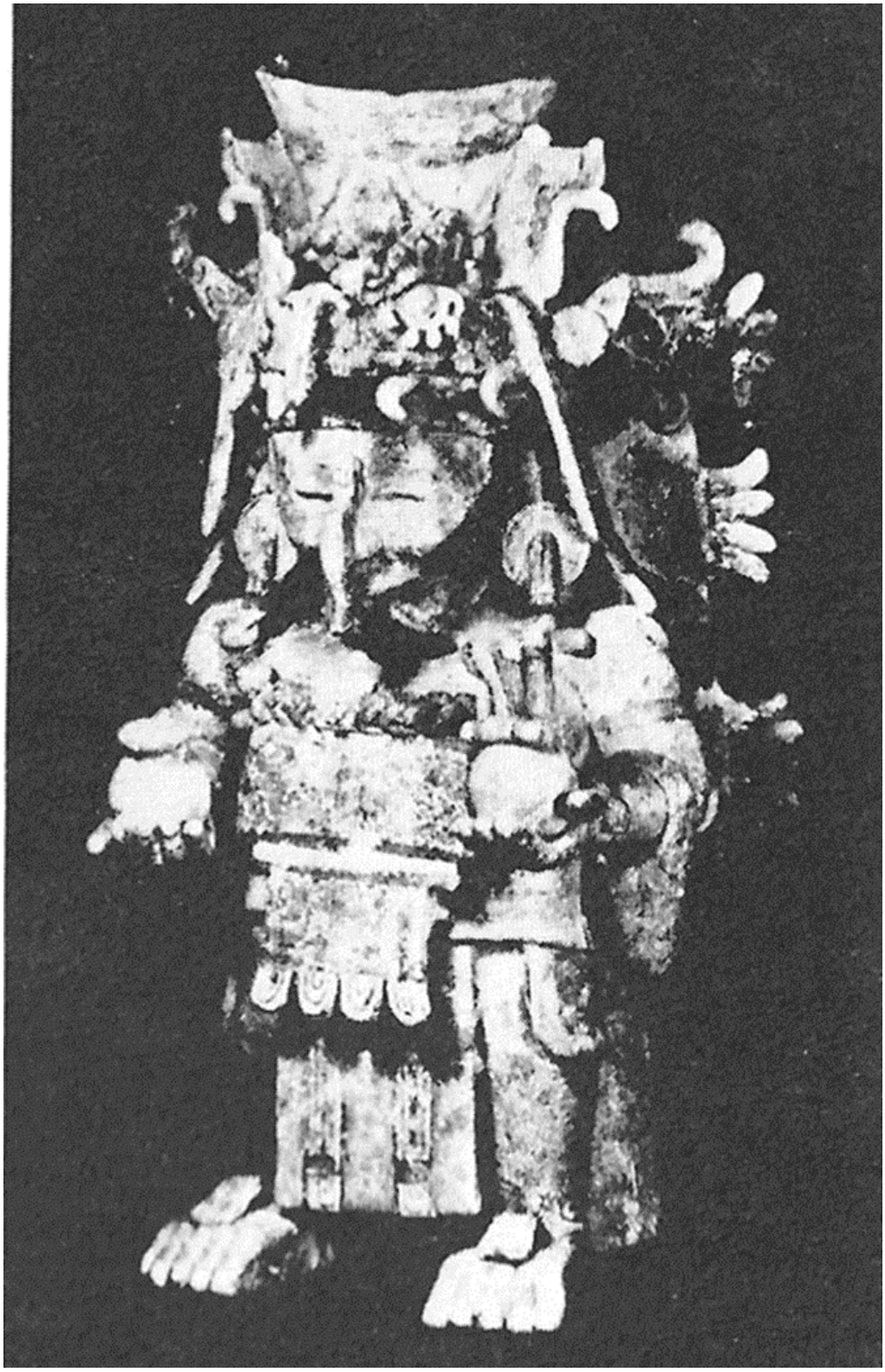

Figure 4.6.2: Chaak CMM (after Thompson 1957: fig 3f)

Figure 4.6.3: Itzamna CMM (after Thompson 1957: fig. 3d, e)

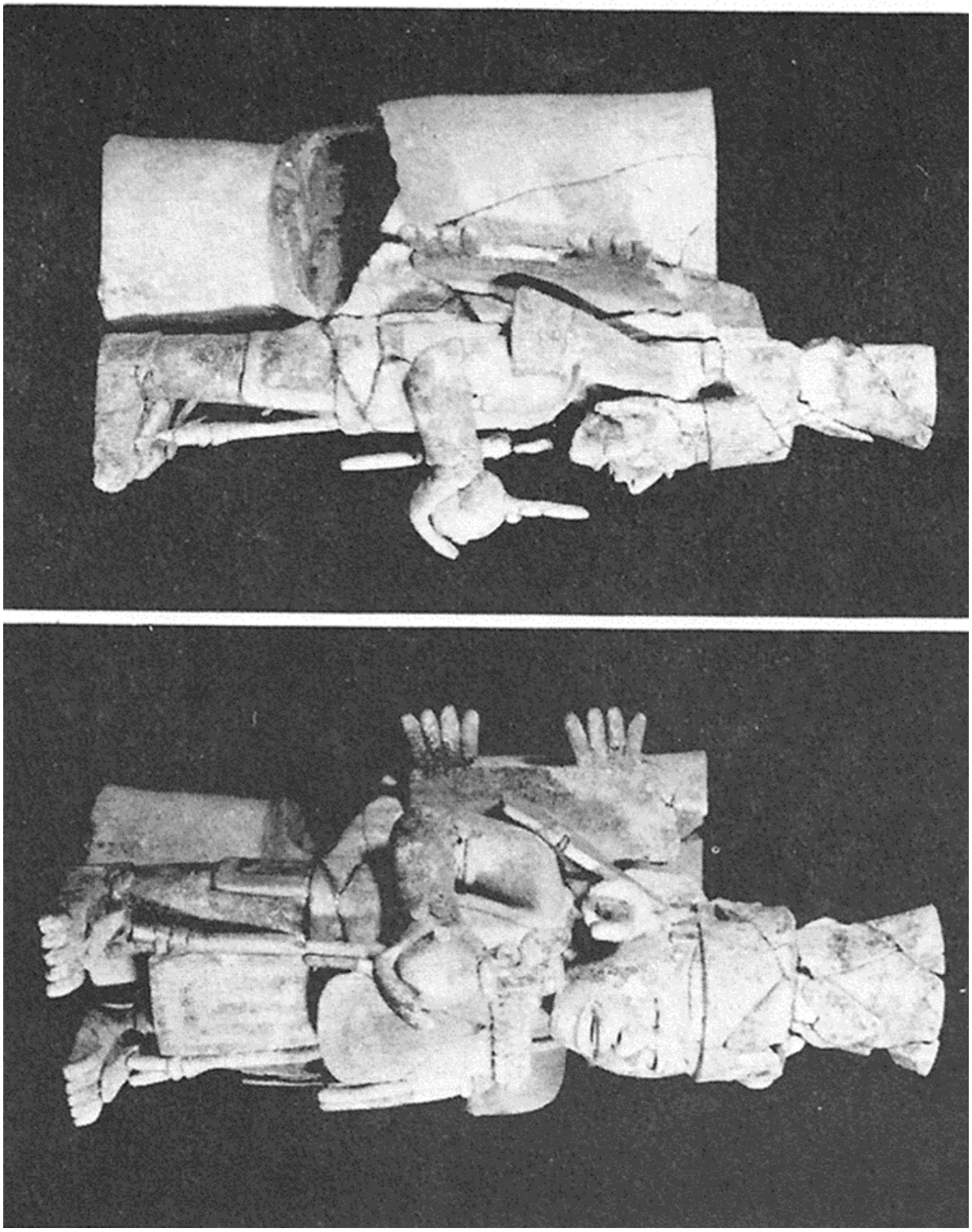

Figure 4.6.4: Maize God (after Thompson 1957: fig 3c)

Figure 4.6.5: Merchant God (after Thompson 1957: fig 1f)

Figure 4.6.6: Itzamna CMM from Mayapan (Masson and Peraza Lope 2014: fig. 7.3, a)

Figure 4.6.7: Chaak CMM fragments (after Masson and Peraza Lope 2014: fig. 7.3, c)

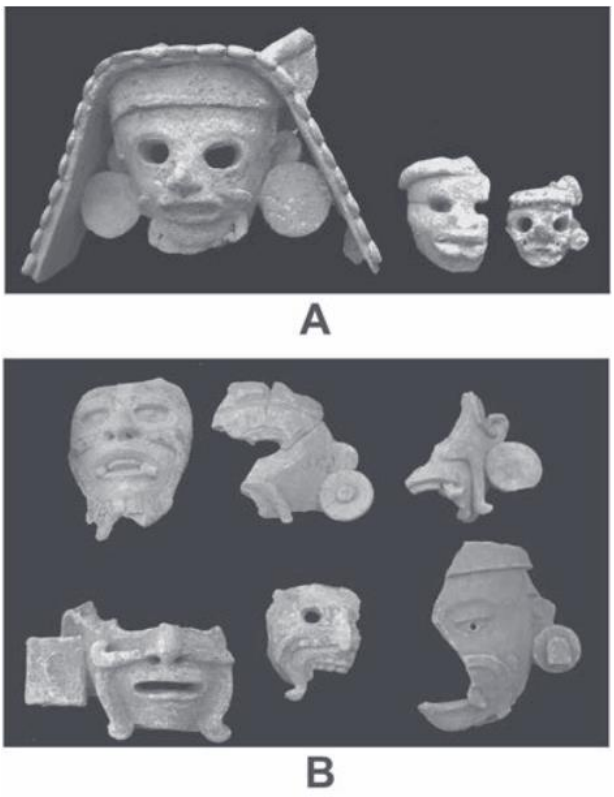

Figure 4.6.8: Merchant and Whisker God CMM fragments (after Masson and Peraza Lope 2014: fig. 7.4, a, b)

Figure 4.6.9: Possible Maize God CMM fragments (after Masson and Peraza Lope 2014: fig. 7.5, a)

Figure 4.6.10: Tlahuizalpantecuhtli CMM fragment (after Masson and Peraza Lope 2014: fig. 7.7, a)

Figure 4.6.11: Xipe Totec CMM fragment (after Masson and Peraza Lope 2014: fig. 7.7, c)

5 CHAPTER FIVE: METHODS

5.1 Literature

The literature consulted for this thesis is vast and varied. The two main veins of literature examined are related to Maya caves and to Chen Mul Modeled Type effigy incense burners. While my interest in Maya caves extends back into my days as an undergraduate student, I had no prior knowledge of CMMs before the start of this project back in the fall of 2019. Owing to the fact the data set of this thesis focuses on CMMs found in Quintana Roo caves, the focus narrowed down to fining all I could in this location. However, I very quickly came to the understanding that CMMs are under reported in Quintana Roo caves, along with most ritual ceramics. Therefore, an extensive amount of time was spent collecting all I could on CMMs and personal communications with Dominique Rissolo (2019-2021) and Miguel Covarrubias (2021), who work with Quintana Roo caves provided additional information.

For cave literature, several sources were reviewed including James Brady's (1989) seminal dissertation largely attributed to solidifying the Maya Cave Archaeology subdiscipline and confirming more attention was needed paid to the Mesoamerican caves. Before this dissertation, Maya Cave Archaeology was sparse and held little sway over Maya Archaeology as a whole (Brady 1989:10). Publications until Brady's (1989:10-11) work viewed caves in Mesoamerica through a European lens, claiming they were only used for living dwellings and water.

Both Prufer and Brady (2005) and Brady and Prufer (2005) edited volumes dedicated solely to Maya caves and their importance were read and heavily influenced much of this thesis. Brady and Ashmore's (1999) work on sacred landscapes and how caves influenced the orientation and creation of Maya settlements was extremely helpful as well as Schele and

Freidel's (1990) work dedicated to explaining the Maya worldview which was paramount in further explaining the Maya worldview and its lasting impact on settlements. Dominique Rissolo's (2001, 2004, 2005a, 2005b, 2020) numerous works on Quintana Roo caves were unmatched in importance for the foundation of this thesis.

In relation to CMMs, the beginning of the fascination was Thompson's (1957) report on deities found in censer form at Mayapan. The excavations of Mayapan proved to yield considerable information on CMMs with Smith's (1971a, 1971b) two volumes dedicated to its pottery. From here the CMM groupings and different mold-made parts were categorized. Rice, (1999) Russell, (2000) Milbrath et al., (2008) and Masson and Peraza Lope (2014) all provided additional information of CMMs, their widespread use, relevance, and the continued need for study. Dominique Rissolo (personal communications, 2019-2021) was the main source of information on CMMs found inside Quintana Roo caves.

5.2 Personal Communication

Since there are gaps in the Quintana Roo cave ceramic literature, several outside sources had to be contacted. I am deeply indebted to the numerous personal communications with Dominique Rissolo, who has been a constant source of information on this subject. Communication with Dr. Rissolo began in late 2019 and has continued to present. We began by covering what Chen Mul Modeled Type effigy censers were, I was directed towards Milbrath et al. (2008), Masson and Peraza Lope (2014), Rice (1999), Russell (2000; 2016), and of course several of Rissolo's (2001, 2004, 2005a, 2005b, 2020) own work as well as his work with others (Rissolo et al. 2016, Rissolo et al. 2017). Thompson (1957) and Smith's (1971a, 1971b) groundwork on Chen Mul Modeled Type effigy censers was a basic requirement as well.

However, all these works- with the exception of Rissolo's- take place in Mayapan or look very broadly and comparatively at Chen Mul Modeled censers found all over the Yucatán.

Dominique Rissolo (personal communication 2019-2021) has further documented several Chen Mul Modeled censers in Quintana Roo caves over the years. His dissertation (Rissolo 2001) includes two caves, Actun Maas and Actun Xooch, that feature Chen Mul Modeled censer fragments. Though uncertain if it is a part of the Group Y Cave at Xcaret first documented by Andrews IV and Andrews (1975) Dominique Rissolo did observe Chen Mul Modeled fragments and a shell in 2002-2003 (Dominique Rissolo, personal communication 2021). A cave near Akumal revealed a Chen Mul Modeled censer of Chaak which was documented with a shell offering nearby (Rissolo 2004:58). In 2016, Dominique Rissolo (personal communication 2021) examined another Chen Mul Modeled censer is Chicleros Cave. His observations and continual collection of Chen Mul Modeled censers in Quintana Roo caves has greatly impacted the data of this thesis and made it possible.

It was recommended that I contact Bradley W. Russell to see if he had any more information on Chen Mul Modeled censers found inside caves. Russell has conducted work in Mayapan and is very familiar with Chen Mul Modeled Type censers. While Bradley Russell (personal communication 2021) did not recall finding Chen Mul Modeled censers inside cave complexes, he did note they were found in cenotes and small shrines. The censers were also found in various Hall structures at Mayapan and temple groups. When asked what condition the censers were found Bradley Russell (personal communication 2021) stated they were usually smashed and broken, found with projectile points, and burned bones, much like a termination or desecration ritual, it was apparent the people at the time were disposing of certain people and certain gods.

Miguel Covarrubias frequently works inside the caves of Quintana Roo. His expertise and constant work inside the Quintana Roo caves make him a valuable expert when locating these flighty censers. A unique feature of the east coast of Quintana Roo is the abundance of cave architecture which include shrines and alters (Miguel Covarrubias, personal communication 2021). While reviewing his personal database Miguel Covarrubias (personal communication 2021) recalled finding fragments of a Chen Mul Modeled censer on an alter near Punta Laguna, but sadly, did not have documentation of this censer. He did have documentation of other ritual ceramics in caves and has found evidence of ritual ceramics in nine out of 21 caves he has documented. While Miguel Covarrubias (personal communication 2021) was not able to provide documentation of Chen Mul Modeled censers he remembers seeing he attributes this to looters who whisk the censers away, deeming them valuable and removing them from their primary context.

6 CHAPTER SIX: ANALYSIS OF CHEN MUL MODELED TYPE EFFIGY CENSER IN QUINTANA ROO

6.1 Quintana Roo Chen Mul Modeled Type Effigy Censers

Table 6:1: CMMs found in Quintana Roo caves and cenotes

Cave Name	Location	CMM Deposit	Arch. Features	Rock Art	Map	Image
Actun Maas	Q. R; 2.7km southeast of Naranjalejido	37 sherds, 1-2 censers featured	Flow-stone formation; possibly offertory	No	See Figure 6.1.2	See Figure 6.1.3
Actun Xooch	Q. R; 1km west of San Juan de Dios	38 sherds	Base of offertory platform	Yes	See Figure 6.1.4	See Figure 6.1.5
Cenote Xibalba	Q. R; near Playa del Carmen	Large CMM bodies, face fragment	Found underwater by divers	N/A	See Figure 6.1.6	See Figure 6.1.7
Cave Sistema Pool Tunich	Q. R; near Playa del Carmen	CMM fragments, 2 feet, 1 face, 1 hand	Altars at Pool Tunich	No	See Figure 6.1.8	See Figure 6.1.9
Group Y Cave Xcaret	Q. R; Xcaret/Punt a Piedra	CMM fragments found in deposit with shell	Shrine	Yes	See Figure 6.1.10	No Image
Cave Chicleros (X-2)	Q. R; west of Xcaret and Sistema Pool Tunich	CMM fragments	Shrine	No	See Figure 6.1.11	See Figure 6.1.12 and 6.1.13
Cueva Chanchen	Yucatán; 8km north of Ichmul	One CMM fragment	Cave complex	Yes	See Figure 6.1.14	No Image
Cenote (unnamed)	Q. R; near Sistema Sac Actun	One CMM face and hand fragment	Underwater	N/A	See Figure 6.1.15	See Figure 6.1.16 and 6.1.17
Cenote (unnamed) S-03-34	Northern Q. R	Incensario sherds	Throne	No	See Figure 6.1.18	See Figure 6.1.19
Cave Caritas	Q. R 5km west of Akumal	Chaak CMM fragments and conch shell	Shrine 1	Yes	See Figure 6.1.20	No Image

Figure 6.1.1: Quintana Roo Caves with CMMs Map

The growing number of CMMs found within caves in Quintana Roo (Figure 6.1.1) has led to the belief that there are more to be found inside caves. This assumption is not without backing. In the table above there are ten different examples of Chen Mul Modeled Type effigy censers

found inside Quintana Roo caves. An analysis of them follows, along with figures when available.

6.1.1 Actun Maas

Figure 6.1.2: Actun Maas Map

Figure 6.1.3: Actun Maas CMM fragments (after Rissolo 2003: fig. 5.61, a-j)

The CMMs discovered inside Actun Maas (Figure 6.1.2) by Rissolo (2003:84-86, 122-124) are comprised of a total of 37 sherds which are thought to belong to one or possible two censers. The fragments were discovered in clusters E, F, G, and H all of which fall within the "flow-stone formation and possible offertory" located below the censer fragments (Rissolo 2003:85). The fragments include an ear spool, complete intermediate base, triangular appendages, and an almost complete pedestal base (Rissolo 2003:85). Some of the censer fragments feature a thick carbonized coating on the interior sides, possibly copal residue (Rissolo 2003:85). On the exterior parts of the censer fragments found in cluster H, a blue color is visible; this color is also visible on the ear spool (Rissolo 2003:85).

The CMM fragments from Actun Maas (Figure 6.1.3) seem to be adornments broken from the main censer body. Rissolo (2001:85) does note a partial reconstruction pointed to these fragments belonging to one possibly two CMMs. There is clearly an earspool among the fragments. Some of these censers had a thick carbonized coating on the interior sides (Rissolo

2001:85), which prove they were used to receive or give offerings to the Maya god they were modeled after.

6.1.2 Actun Xooch

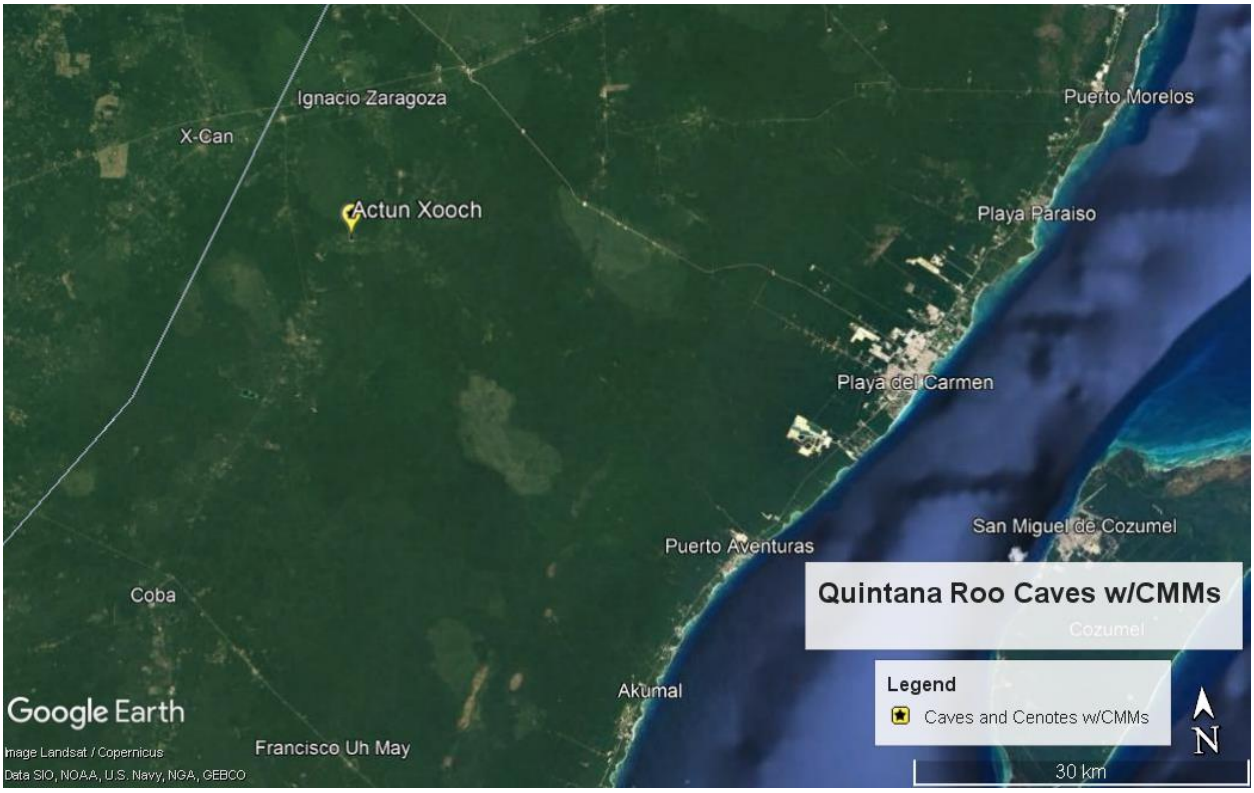

Figure 6.1.4: Actun Xooch Map

Figure 6.1.5: Actun Xooch CMM fragments (after Rissolo 2003: fig. 5.62)

Located 1km west of the San Juan community the 38 sherds found in Actun Xooch (Figure 6.1.4) were recovered at the base of the 5m wide by 4.5m deep offertory platform (Rissolo 2003:83). The 38 sherds found at the base of this platform included headdress elements, body elements, and an ear flare (Rissolo 2003:83). The face fragment pictured above was also found at the base of the offertory as well. In addition to the sherds, three cacao pods, two solid, one hollow were recovered as well. The hollow pod was stuccoed and painted (Rissolo 2003:83). A painted Cehac cup was found as well which might have rested in the upturned hand of a Chaak CMM at some point (Rissolo 2003:83).

The CMM found in Actun Xooch (Figure 6.1.5) has a long straight nose with U-shaped adornments by the eye area. Because of the long straight nose, this CMM seems to be a Merchant god. It is unlikely to be God L and is instead God M. At least two gods influence God M including Yacatechtli and Ek Chauh. Along with this fragment three cacao pods were found. Ek Chauh is closely associated with cacao (Taube 1992:89) and this could have been an offering left to him in his censer form.

6.1.3 Cenote Xibalba

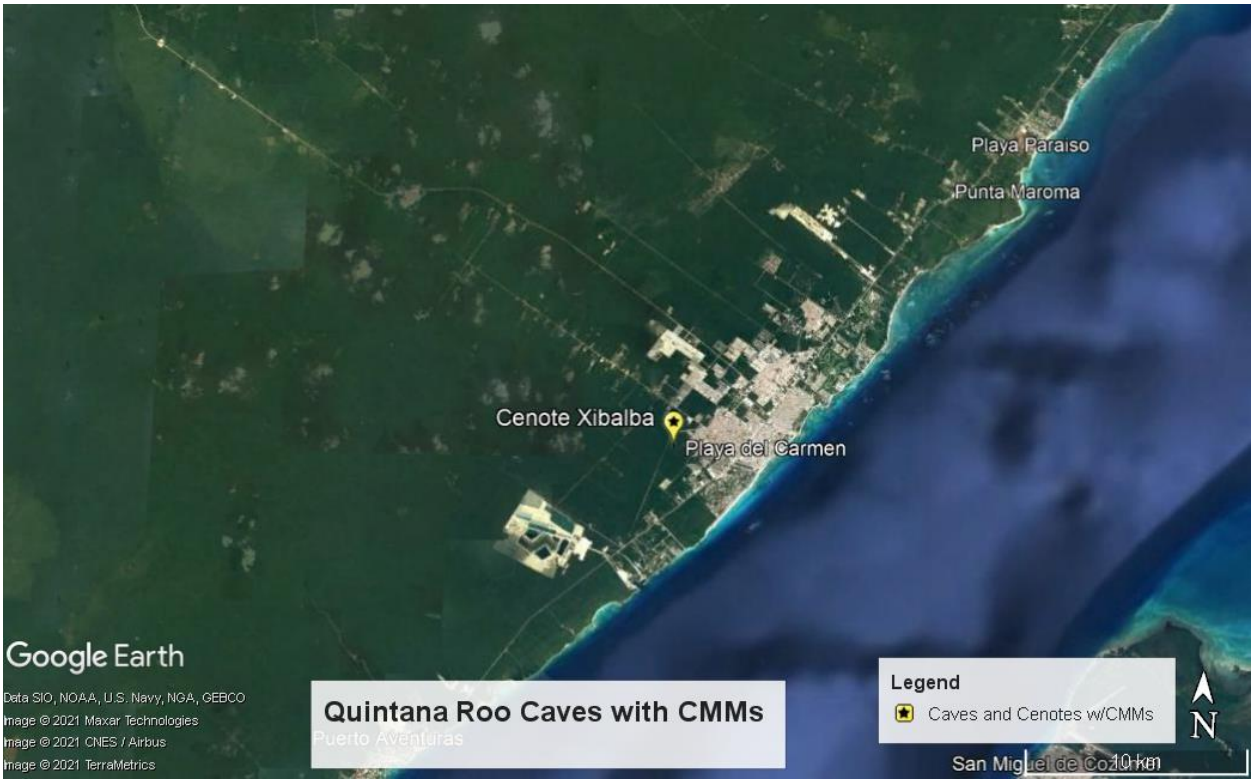

Figure 6.1.6: Cenote Xibalba Map

Figure 6.1.7: Cenote Xibalba CMM fragments (after Rissolo 2021: personal communication, photo by Sam Meacham)

Cenote Xibalba, located near Playa del Carmen, Quintana Roo (Figure 6.1.6) holds a CMM face fragment as well as body fragments. A second censer, almost intact was found as well, but this censer was a brazier and not a CMM. A chert biface was with the two censers and was a part of the offering. It is important to note the offerings appear to have been thrown into the cenote (Dominique Rissolo, personal communication 2021).

Cenote Xibalba's (Figure 6.1.7) CMM fragment is missing the bottom half of its face, but from the top half, seems to be diagnostic of Itzamna. The nose with a bump, heavy brow, and age line on the cheek point to Itzamna (Thompson 1957:4). As Itzamna was one of the most important gods of the Postclassic (Taube 1992:31), his presence in censer form is unsurprising. This censer was thrown into Cenote Xibalba and was found with a brazier (Rissolo, personal communication 2021). A beacon of wisdom and divination (Taube 1992:31-33), Itzamna's CMM could have been thrown into Cenote Xibalba for divine knowledge or a termination ritual.

6.1.4 Cave Sistema Pool Tunich

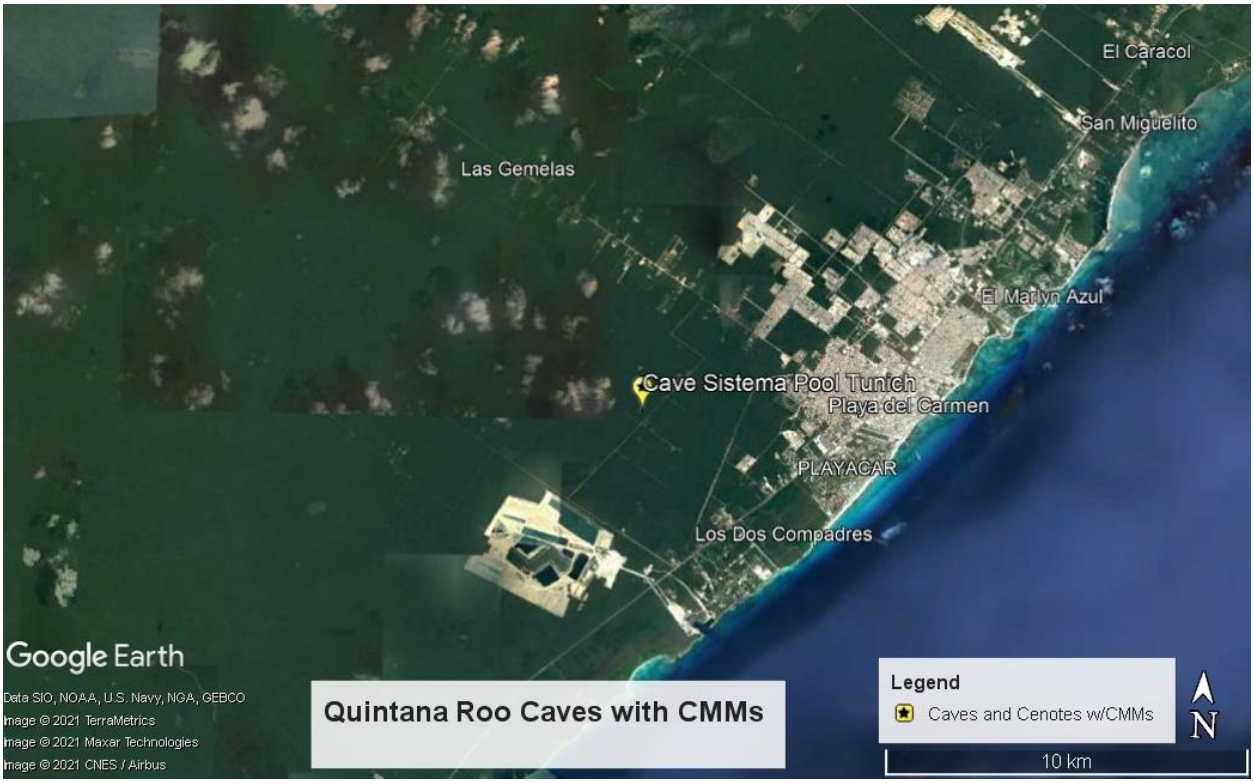

Figure 6.1.8: Cave Sistema Pool Tunich

Figure 6.1.9: Cave Sistema Pool Tunich CMM fragments (after Rissolo 2021: personal communication)

The CMM face, feet, and hand fragments found at Sistema Pool Tunich (Figure 6.1.8) were shown to Dominique Rissolo (personal communication 2021) by a resident who claims they were found and subsequently collected from an entrance to the Sistema Pool Tunich. Along with the fragments, a cacao pod was also found.

The Cave Sistema Pool Tunich (Figure 6.1.9) CMM looks to be a younger faced god, with smooth skin. The mouth is missing, but line for the lip and then what appears to be teeth could classify this as God E or the Maize God. Alongside the CMM fragments, a cacao pod was found (Dominique Rissolo, personal communication 2021). The cacao pod could have served as the Maize God's offering.

6.1.5 Group Y Cave Xcaret

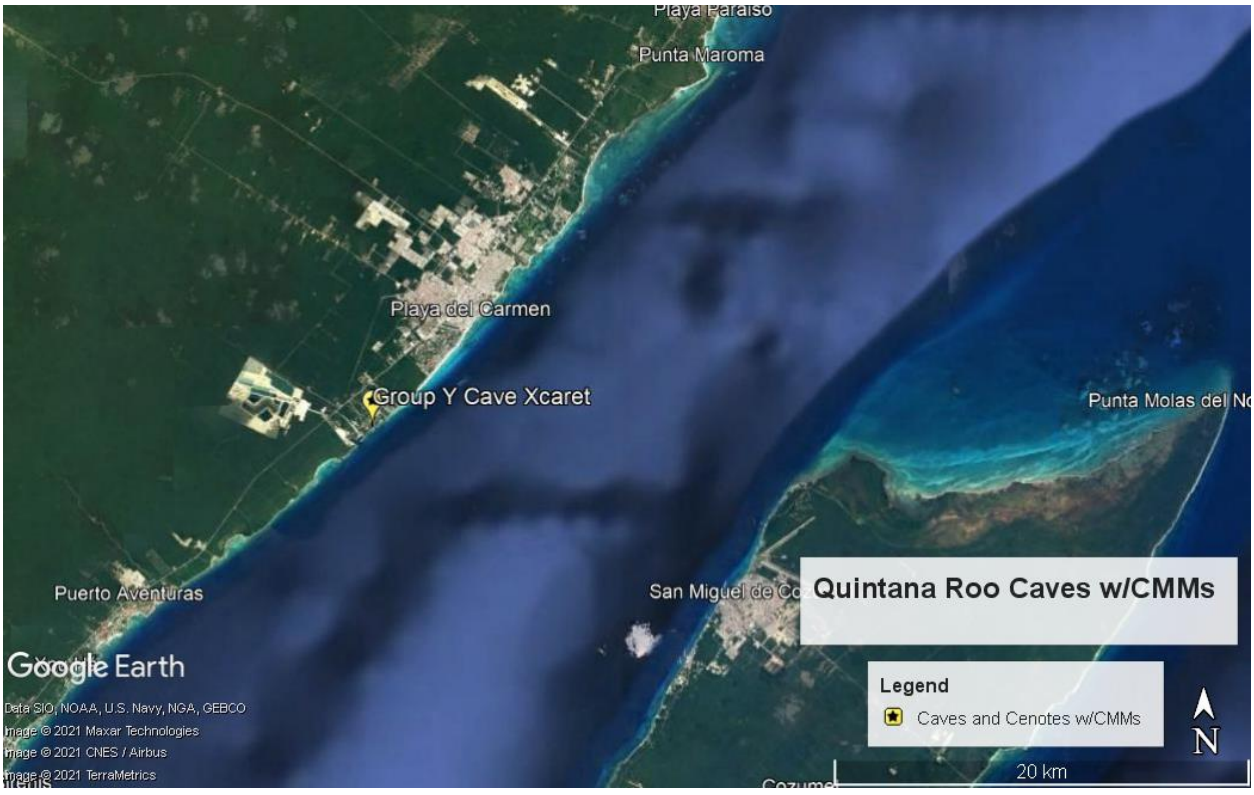

Figure 6.1.10: Group Y Cave Xcaret (X-2) Map

The CMM fragments and shell found in Xcaret or Punta Piedra (Figure 6.1.10) could belong to the Group Y Cave documented by Andrews IV and Andrews (1975:49-50). While Andrews IV and Andrews (1975:49-50) do not mention the CMM, Rissolo (2002-2003) did observe the CMM fragment and shell while in Xcaret. However, it is difficult to know for certain if the CMM fragment Rissolo (2002-2003) observed truly does belong to the Group Y Cave first documented by Andrews IV and Andrews (1975).

It is unknown what this CMM that Rissolo (personal communication 2021) discovered at Cave Y represents. He also observed a shell, which might have functioned as shrine decorations or as an offering.

6.1.6 Chicleros Cave (X-2)

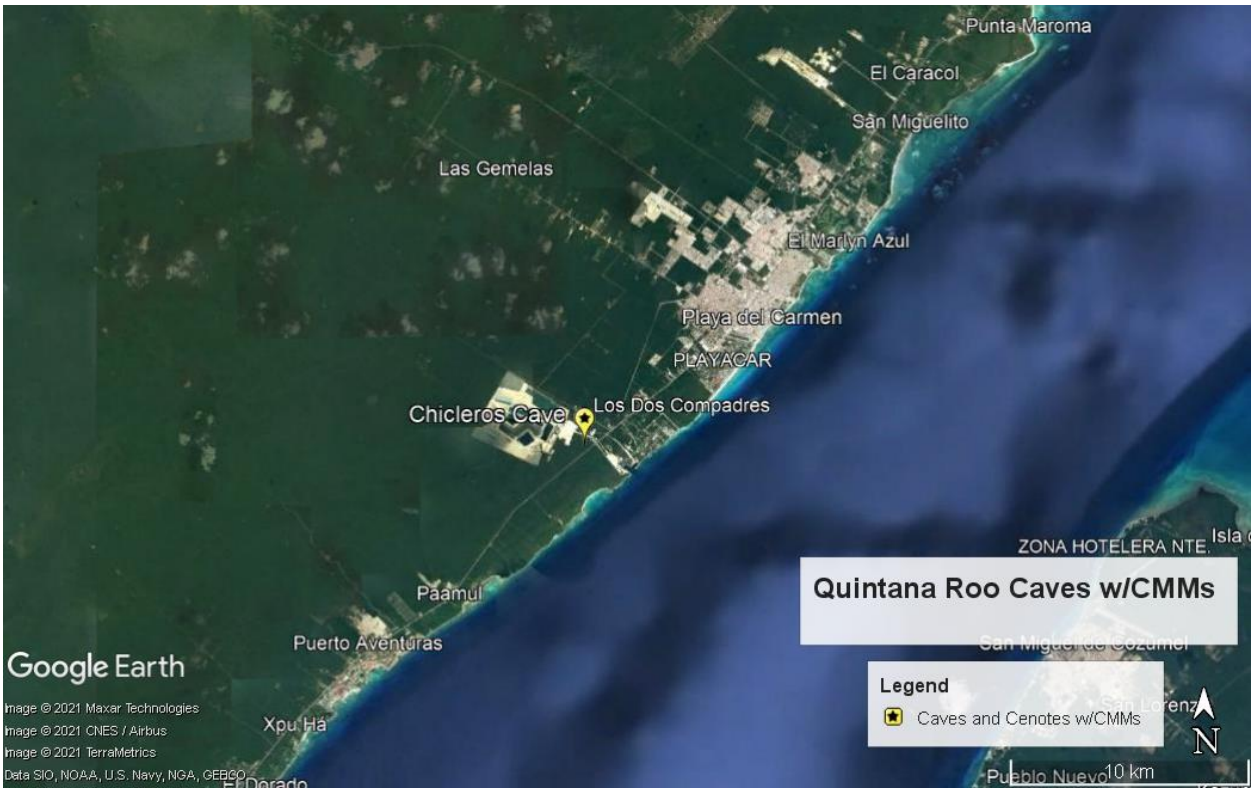

Figure 6.1.11: Chicleros Cave Map

Figure 6.1.12: Chicleros Cave (X-2) CMM fragments (after Rissolo 2021: personal communication, photo by Raul Padilla and Sam Meacham)

Figure 6.1.13: Chicleros Cave (X-2) CMM fragments number 2 (after Rissolo 2021: personal communication, photo by Raul Padilla and Sam Meacham)

Dominique Rissolo (personal communication 2021) observed CMM fragments at Chicleros Cave in 2016 (Figure 6.1.11). The fragments were found in cave shrine X-2 (Rissolo et al. 2017) and feature a low ceiling, and speleothems creating a closed off environment from the rest of the cave. The back of the shrine wall and alter were ripped out as a result of looting causing severe damage (Rissolo et al. 2017). However, due to the ripped-out shrine wall, it was discovered that the shrine was enclosed at a later time and was once an open alter (Rissolo et al. 2017). The alter was very likely the resting place of the CMM, as the fragments were found near the shrine, and very well could have been taken by looters along with the alter wall. The two figure (Figure 6.1.12 and Figure 6.1.13) were taken this year (2021) by Raul Padilla and Sam Meacham while exploring Chicleros Cave. The figures were sent to Dominique Rissolo (personal communication 2021) who provided them for this thesis. Rissolo (personal communication 2021) notes these were not the CMM fragments he discovered on his 2016 expedition of Chicleros Cave.

While a very crude version of the CMM, the fragments found here are undoubtably CMMs (Figure 6.1.12). In particular, the bent arm (Figure 6.1.13) with palms up ready to receive offerings is what solidifies this as a CMM. The face does not have features readily recognizable. Dominique Rissolo (personal communication 2021) observed CMM fragments here, but the crude face and bent arm are not the same ones. This cave has had its shrine ripped out (Rissolo et al. 2017) and the CMM fragments he first observed were more than likely looted as well.

6.1.7 Cueva Chanchen

Figure 6.1.14: Cueva Chanchen Map

Cueva Chanchen, located 8km north of Ichmul and 15km southwest of Chikindzonot (Figure 6.1.14), has two man branches off of its entrance and features a freshwater cenote inside (Martos Lopez 2010:188). The cave has rock art and a nine-stair staircase the Maya built to restrict access to the rock art (Martos Lopez 2010:188). A CMM was found inside the cave but is not pictured. Of the offerings found inside Chanchen, effigy censers along with ceramic vessels, bowls and pots make up the majority of the offerings found inside the cave (Martos Lopez 2010:316). However, this can be attributed to looting and intentional destruction (Martos Lopez 2010:317).

There are no pictures of the CMM fragments Martos Lopez (2010) uncovered, but the presence of water inside Cueva Chanchen and the large number of offerings found in the cave make this a very likely site of CMM veneration and use.

6.1.8 Unnamed Cenote, Near Sistema Sac Actun

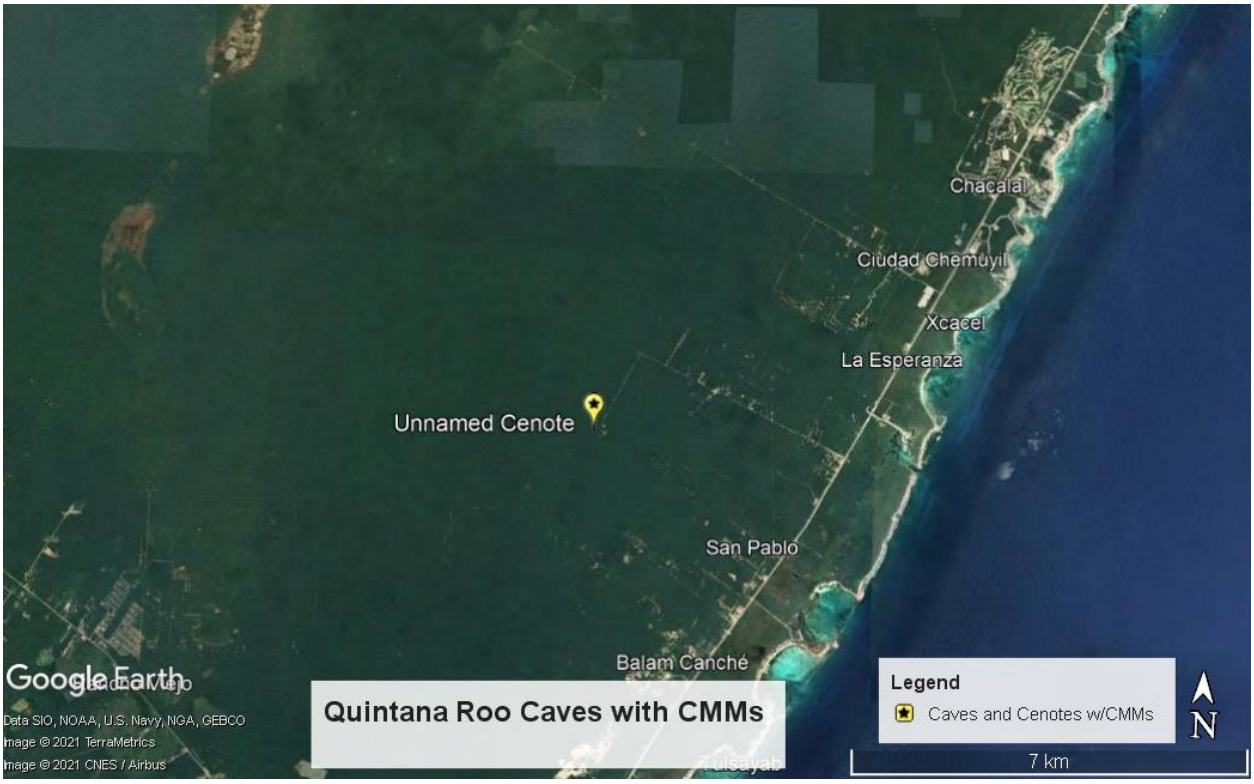

Figure 6.1.15: Unnamed Cenote near Sistema Sac Actun Map

Figure 6.1.16: Unnamed Cenote near Sistema Sac Actun CMM fragments (after Gran Acuifero Maya [GAM] 2018)

Figure 6.1.17: Unnamed Cenote near Sistema Sac Actun CMM fragments number 2 (after Gran Acuifero Maya [GAM] 2018)

While not much is known on the face and arm CMM fragments found near Sistema Sac Actun (Figure 6.1.15). They were found underwater by the Gran Acuifero Maya (GAM) project. The exact location of the cenote is not disclosed nor is the deposit found published. However, there can be no doubt these fragments are CMMs.

The CMM fragments found in the Unnamed Cenote near Sistema Sac Actun (Figure 6.1.16-17) could be one of three gods. This face fragment could be Itzamna, another Merchant

God (God M) or a Whiskered god. Because half of the nose is missing, I cannot say for certain which it is. The lines near the mouth could be age lines for Itzamna, or they could be where decorations for the Whisker god were attached. It is of my belief, like that of Masson and Peraza Lope (2014), that the Whisker and Merchant gods should be grouped together, making this a Merchant god or Itzamna. The arm (Figure 6.1.17) ready to hold a spear or staff further supports the idea this is a Merchant god, as Ek Chauh who is an influence for God M according to Taube (1992:88). These CMM fragments were found underwater and like Cenote Xibalba, could have been thrown into the cenote.

6.1.9 Unnamed Cenote: S-03-34

Figure 6.1.18: Unnamed Cenote (S-03-34) Map

Figure 6.1.19: Unnamed Cenote (S-03-34) CMM fragments on throne (after Glover 2006: fig. 6.22)

A throne found in Glover's (2006: 439-441) dissertation had incensario sherds on top (Figure 6.1.18). The stuccoed throne was located in the dry section of the cenote (Glover 2006:439) and has red or orange lines on its back.

It is difficult to see the censer sherds found on the throne in the Unnamed Cenote (Figure 6.1.19). However, the mere presence of the CMM sherd on the throne indicate this was an alter where a once fully formed CMM rested. The heavy stuccoed throne with red or orange lines is further evidence this Unnamed cenote belonged to the Postclassic Cave-Use Complex.

6.1.10 Cave Caritas

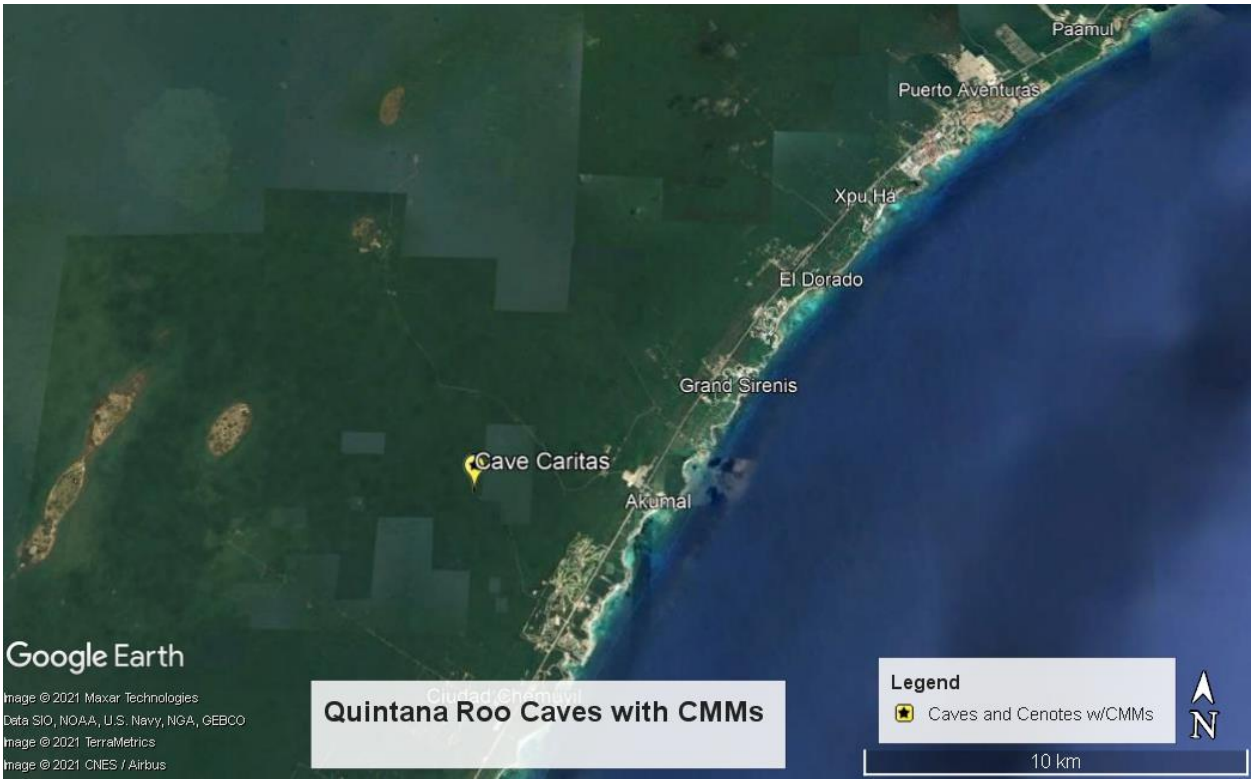

Figure 6.1.20: Cave Caritas Map

In 2003, Rissolo (2004) discovered Chaak CMM fragments inside of Cave Caritas, located 5km west of Akumal (Figure 6.1.20), and is situated north of Tulum and south of Xcaret. The Chaak CMM was discovered on Shrine 1 which was formed in a U-shape around a stalagmite and measures 2.33 meters long, 1.11 meters wide, and 0.70 meters high (Rissolo 2004:58). The walls of the southwestern half of the shrine were covered in a thick stucco and were painted blue or green at one time (Rissolo 2004:58). The southwest wall and floor around the stalagmite is covered in stucco and appear to have been painted at one time (Rissolo 2004:58). Found near the shrine was a CMM of Chaak. A second U-shaped shrine is located near one of the shallow pools found inside the cave along the eastern side; shrine two was also constructed around a stalagmite

(Rissolo 2004:58). The Chaak CMM fragments were near the shrine along with a conch shell (Rissolo 2004:58).

The U-shaped shrine constructed around the stalagmite in Cave Caritas is another example of the Postclassic Cave-use Complex. Within this cave is a shrine, water, a CMM censer, and cave art. The CMM was identified as the rain god Chaak (Rissolo 2004:58) and his presence inside this watery cave is unsurprising as Chaak imagery is commonly found within watery caves.

6.2 Discussion and Broader Interpretation

All the CMMs found in Quintana Roo, Mexico caves have common threads between them; they are found near or on shrines/alters, some type of secondary offering is with the CMM, and water is usually present. Two of the gods identified from this data set are, surprisingly, Merchant gods. While some caves do not have images, from the images we do have, I have identified one to be Itzamna, one as a possible Maize God, and two probable Merchant Gods. Cave Caritas houses Chaak CMM fragments which Rissolo (2004:58) discovered.

The presence of Merchant Gods in Chen Mul Modeled Type effigy censer form tells us during the Postclassic Period, Quintana Roo Maya were fervently attempting to keep the Merchant God(s) happy. This time period was defined by a booming trade industry that stretched around the Yucatán Peninsula and north into Central Mexico and south into Central America (Aimers 2007; Hodell 2007; Sabloff 2007:19-20; Smart et al. 2006). Chaak's presence in caves comes as no surprise as caves were the origin of water, rain, and lightning, all elements Chaak controlled (Brady and Ashmore 1999; Pugh 2005; Rissolo 2003, 2004, 2005a; Rissolo et al. 2016, 2017; Stone 1995; Taube 1992). The CMMs used inside Quintana Roo caves points to the larger religious unity that Milbrath et al. (2008:104) explain is behind the ever-growing sites

where CMMs are discovered. However, while Milbrath et al. (2008) do point to a larger religious unity in the Postclassic for the Yucatán, they neglect to search caves in their survey. This survey gap cannot be stressed enough. By ignoring the cave context, we lose valuable information on CMMs.

It is imperative to search Postclassic caves for CMMs as they continue to expand upon the beliefs already held for cave rituals. The expectation of this research as discussed above was to find Chaak, however, a number of sites to date of Postclassic gods were found. This the way in which scholars need to think about cave rituals as evidence to date points to a more complex cave environment in the Postclassic Period. As we can see, water rituals were not the only rituals being performed at this time. A thriving trade network ensured the need for merchant rituals, clearly exhibited by the presence of Merchant god CMMs.

Dominique Rissolo (personal communication 2021) suggests the presence of Chaak in Postclassic Cave-use Complex units is a defining feature of the importance of rain and water rituals and rites, even applicable to the broader Yucatán peninsula. CMMs are a valuable tool when diagnosing what religious rituals underwent as whatever god they were modeled after very clearly indicates the god invoked and their certain characteristics and powers they possessed and controlled. Merchant Gods controlled and influenced the trade section of Maya life while Chaak controlled and influenced the natural world the Maya operated in.

In addition to changing the way Postclassic cave rituals are thought of, the nature of how CMMs are conceptualized needs to change. Yes, CMMs are censers, and they do function as offerings themselves. However, they are also conduits for offerings. Their palms are upright, to *receive* offerings. It is my belief they should be thought of more like the Lakandon god-pots (Nunez Ocampo and Woodfill 2012). The god-pots are censers it is understood by the Lakandon

they are embodiment of the gods they represent (Nunez Ocampo and Woodfill 2012:162-63). The native Maya communities speak and worship the censers, *giving the god-pots* the offerings (Nunez Ocampo and Woodfill 2012:162).

Finally, the remains found- or not found in caves- do not mean CMMs never entered them. At 40 cm tall (Smith 1971a), these censers are portable. In all probability, they were moved in and out of caves for different rituals, be it calendrical or specific rituals only religious practitioners could hold (Masson and Peraza Lope 2014; Tozzer 1941). The transformative nature of caves and fire are one reason they might have been there in the first place. It is entirely probable the CMMs found in caves were at the end of their lifecycle and were smashed inside the caves to kill them so a new one could take their place. This is also where they would been born or brought to life. After this, they conceivably would have been moved to their final resting place above ground. The Lakandon god-pots as a religious item continued because they were continuously made generation after generation (Nunez Ocampo and Woodfill 2012:163). It is inevitable they will break, they are pottery, but their continuation was part of a renewal cycle which survives the breakage and incorporates it into its overall design continuing the worship of the censers, be they Lakandon or CMM indefinitely.

This is not to say CMMs were not left inside caves to serve as gods and guardians of those places, they undoubtably were, just the absence of them does not mean they never entered these spaces at all. We need to be flexible in our understanding of CMMs and cave rituals. This research demonstrates how these spaces were dynamic and alive and were not used for a single set of ritual purpose. The Postclassic was also a time of great change and the CMMs reflect the growing importance of trade to the people who lived in these areas. Overall, continued research

on CMMs will lead to a deeper understanding of religious practice during this time period and the subterranean spaces they were performed in.

7 CHAPTER SEVEN: CONCLUSION AND FUTURE RESEARCH

Caves and mountains functioned as important cosmically ordained landscapes (Brady and Ashmore 1999; Brady and Prufer 2005; Weaver et al. 2015, Schele and Freidel 1990). Seen as the axis mundi for settlements, they centered the community in the cosmic layers which constructed the ancient Maya world (Brady and Ashmore 1999; Schele and Freidel 1990). Not only were they cosmically ordained landscapes, but they were also sought out for their supernatural significance. The gateways to the Earth Lords who resided inside hollow mountains and the entrances to the Underworld where various gods and ancestors lived made these natural features significant in both the Maya Highlands and Lowlands (Brady and Ashmore 1999; Brady and Prufer 2005; Weaver et al. 2015). Rituals related to agriculture, water, termination, renewal and fertility all took place inside caves. The act of burning is considered a transformative power and when place in a transformative space, like caves, burning changed the very nature of the object offered (Brown 2004; Palka 2018; Stone 1995).

The importance of trade, architecture, mural art, and the lessening of elite admiration are important components of the Postclassic (Aimers 2007; Andrews IV and Andrews 1975; Andrews 1993; Hodell et al. 2007; Sabloff 2007). This coupled with the karstic environment of the east coast of Quintana Roo (Andrews IV and Andrews 1975; Hodell et al. 2005; Rissolo 2005a) created an environment that was not only viable for use after the Classic Period but was saturated with religious importance and thus created the Postclassic Cave-Use Complex. The Postclassic Cave-Use Complex explains the unique components of the east coast Quintana Roo caves. An abundance of shrines and alters, rock art, and offerings constitute this complex and offer a concise list of attributes to look for when dealing with this area of research.

While the Chen Mul Modeled Type effigy censer originated in Mayapan, their quick spread speaks to their popularity (Milbrath et al. 2008). The molds used to form parts of the effigy censers indicate mass production, suggesting they were being created for several rituals. The effigies functioned as literal and imaginative representations of the deities they portrayed (Milbrath et al. 2008:108; Russell 2000). Chaak, Merchant Gods, the Maize God, and Itzamna make up the majority of the identifiable CMMs in the data set. These gods were of great importance to the Postclassic pantheon and give clues as to what the Maya of the Postclassic valued. Trade was booming, rain and agriculture were needed to sustain it, and divine wisdom and appealing to the Old God was critical. As presented in Chapter Six, the growing number of CMMs found in Quintana Roo caves is an area of research that needs more attention.

Future research should include a survey of Quintana Roo caves with the intent to document any CMMs discovered. Looting of these objects is a pressing issue and the need to document them in their original context is paramount. Intentional breakage patterns could help uncover where the CMMs were smashed, and how. This would lead to the understanding of termination rituals, or even renewal cycles for a broken censer means a new one is needed. In addition to this, I hope that this thesis sparks a renewed interest in the censers for the Quintana Roo region and current archaeologists will realize they have in fact stumbled across CMMs and were unaware. The complete CMMs are incredible to look at, but it is difficult and rare to find them in such fine condition. The sherds from the data set are closer to what I expect will continue to be to be found in the field. Although the CMMs are undoubtedly going to be hard to find, I am confident there are more of them out there and, with them, lies a further and deeper understanding of cave rituals the Maya once practiced.

REFERENCES

Aimers, James J.

2007 What Maya Collapse? Terminal Classic Variation in the Maya Lowlands. *Journal Archaeological Research*. 15: 329-377.

Andrews, Anthony P.

1993 Late Postclassic Lowland Maya Archaeology. *Journal of World Prehistory*. 7(1): 35-69.

Andrews IV, E. Wyllys and Anthony P. Andrews

1975 *A Preliminary Study of the Ruins of Xcaret, Quintana Roo, Mexico: With Notes on Other Archaeological Remains on the Central East Coast of the Yucatan Peninsula*. Middle American Research Institute. Tulane University, New Orleans, Louisiana.

Andrews, Anthony P., E. Wyllys Andrews, and Fernando Robles Castellanos

2003 The Northern Maya Collapse and its Aftermath. *Ancient Mesoamerica*. 14(1): 151-156.

Brady, James E.

1989 An Investigation of Maya Ritual Cave Use with Special Reference to Naj Tunich, Peten, Guatemala. PhD Dissertation. Department of Archaeology. University of California, Los Angeles, California.

Brady, James E. and Wendy Ashmore

1999 Mountains, Caves, Water: Ideational Landscapes of the Ancient Maya. In *Archaeologies of Landscape: Cotemporary Perspectives*, edited by Wendy Ashmore and A. Bernard Knapp, pp 124-145. Blackwell Publishers, Oxford.

Brady, James E. and Prufer, Keith M.

2005 Introduction: A History of Mesoamerican Cave Interpretation. In *In the Maw of the Earth Monster: Mesoamerican Ritual Cave Use* edited by James E. Brady and Keith M. Prufer, pp. 1-17. Prufer. University of Texas Press, Austin.

Brown, Linda A.

2004 Dangerous Places and Wild Spaces: Creating Meaning With Materials and Space at Contemporary Maya Shrines on El Duende Mountain. *Journal of Archaeological Method and Theory*. 11(1): 31-58.

Cook, Garrett

1986 Quichean Folk Theology and Southern Maya Supernaturalism. In *Symbol and Meaning Beyond the Closed Community: Essays in Mesoamerican Ideas* edited by Gary H. Gossen pp. 139-153. Institute for Mesoamerican Studies. The University of Albany State University of New York, New York.

Demarest, Arthur A., Prudence M. Rice, and Don S. Rice

2005 The Terminal Classic in the Maya Lowlands: Collapse, Transition, and Transformation. University Press of Colorado, Boulder, Colorado.

Farriss, Nancy M., Arthur G. Miller, and Arlen F. Chase

1975 Late Maya Mural Paintings from Quintana Roo, Mexico. *Journal of Field Archaeology* 2(1/2):5-10.

Glover, Jeffrey Barron

2006 The Yalahau Regional Settlement Pattern Survey: A Study of Ancient Maya Social Organization in Northern Quintana Roo, Mexico. PhD Dissertation. Department of Anthropology. University of California, Riverside, California.

Hodell, D. A., M. Brenner, and J. H. Curtis

2007 Climate and cultural history of the Northeastern Yucatan Peninsula, Quintana Roo, Mexico. *Climatic Change*. 83:215-240.

Knapp, A., Bernard and Wendy Ashmore

1999 Archaeological Landscapes: Constructed, Conceptualized, Ideational. *Archaeology of Landscape: Contemporary Perspectives*, edited by Wendy Ashmore and A. Bernard Knapp, pp1-30. Blackwell Publishers. Hoboken, New Jersey.

Martos Lopez

2010 Cuevas de la Region Central-Oriental de la Peninsula de Yucatán: Un Analisis Desde la Perspective Simbolica. PhD Dissertation. Department of Anthropology. Instituto Nacional de Antropologia e Historia, Mexico.

Masson, Marilyn A. and Carlos Peraza Lope

2014 Kukulcan's Realm: Urban Life at Ancient Mayapan. University of Colorado Press, Boulder, Colorado.

Milbrath, Susan, James Aimers, Carlos Peraza Lope, and Lynda Florey

2008 Effigy Censers of the Chen Mul Modeled Ceramic System and their Implications for Late Postclassic Maya Interregional Interaction. *Mexican* 30(5): 104-112

Milbrath, Susan and Carlos Peraza Lope

2009 Survival and Revival of Terminal Classic Traditions at Postclassic Mayapan. *Latin American Antiquity*. 20(4):581-606.

Nunez Ocampo, Ruben and Brent Woodfill

2012 Cosmovision lacandona: el culto a las cuevas e incensarios. *Los Investigadores de la Cultura Maya.* 21(2):159-171

Palka, Joe W.

2018 Where There's Fire There's Smoke: Lacandon Maya Burning Rites and Cremation Symbolism. In *Smoke, Flames, and the Human Body in Mesoamerican Ritual Practice* edited by Vera Tiesler and Andrew K. Scherer pp. 287-320. Dumbarton Oaks Research Library and Collection Washington, D.C.

Prufer, Keith M.

2005 Shamans, Caves, and the Roles of Ritual Specialists in Maya Society. In *In the Maw of the Earth Monster: Mesoamerican Ritual Cave Use* edited by James E. Brady and Keith M. Prufer pp. 186-222. University of Texas Press, Austin.

Pugh, Timothy, W.

2005 Caves and Artificial Caves in Late Postclassic Maya Ceremonial Groups. In *Stone Houses and Earth Lords: Maya Religion in the Cave Context* edited by Keith M. Prufer and James E. Brady pp. 47-69. University Press of Colorado, Louisville.

Rice, Prudence M.

1999 Rethinking Classic Lowland Maya Pottery Censers. *Ancient Mesoamerica* 10 (1):25-50

Rissolo, Dominique

2001 Ancient Maya Cave Use in the Yalahau Region, Northern Quintana Roo, Mexico. PhD Dissertation. Department of Anthropology. University of California, Riverside, California.

2004 Maya Cave Shrines Along the Central Coast of Quintana Roo. *Association for Mexican Cave Studies (AMCS) Activities Newsletter* 27:57-59.

2005a Beneath the Yalahau: Emerging Patters of Ancient Maya Ritual Cave Use from Northern Quintana Roo, Mexico. In *In the Maw of the Earth Monster: Mesoamerican*

Ritual Cave Use edited by James E. Brady and Keith M. Prufer pp. 342-372. University of Texas Press, Austin.

2005b Tancah Cave Revisited. *Association for Mexican Cave Studies (AMCS) Activities Newsletter* 28:78-82.

2020 In the Realm of the Rain Gods: A Contextual Survey of Rock Art across the Northern Maya Lowlands. *Heritage* 3:1094-1108.

Rissolo, Dominique, Hess, Michael R., Hoff, Aliya R., Meyer, Dominique, Amador, Fabio Esteban, Morlet, Adriana Velazquez, Petrovic, Vid, Kuester, Falko

2016 Imaging and Visualizing Maya cave Shrines in Northern Quintana Roo, Mexico. *Arqueologica* 2.0.

Rissolo, D., E. Lo, M. R. Hess, D. E. Meyer, and F. E. Amador

2017 Digital Preservation of Ancient Maya Cave Architecture: Recent Field Efforts in Quintana Roo, Mexico. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*. 42(2): 1-4.

Russell, Bradley W.

2000 Postclassic Pottery Censers in the Maya Lowlands: A Study of Form, Function and Symbolism. Master's thesis. Department of Anthropology. State University of New York, Albany, New York.

2016 All the Gods of the World: Modern Maya Ritual in Yucatán, Mexico. *Ethnoarchaeology* 8(1): 4-29.

Sabloff, Jeremy A.

2007 It Depends on How We Look at Things: New Perspectives on the Postclassic Period (AD 1100-1500)) (1000 AD - 1500 AD) in the Northern Maya Lowlands. *Proceedings of the American Philosophical Society* 151(1):11-26.

Schele, Linda, Freidel, David

1990 Sacred Space, Holy Time, and the Maya World. In *A Forest of Kings: The Untold Story of the Ancient Maya*, pp. 64-95. William Morrow and Company, INC., New York.

Smart Peter L., Patricia A. Beddows, Jim Coke, Stefan Doerr, Samantha Smith, and Fiona F. Whitaker

2006 Cave Development on the Caribbean coast of the Yucatán Peninsula, Quintana Roo, Mexico. *Geological Society of America*. 404:105-128.

Smith, Robert Eliot

1971a *The Pottery of the Mayapan: Including Studies of Ceramic Material from Uxmal, Kabah, and Chichen Itza*. Papers of the Peabody Museum of Archaeology and Ethnology Vol. 66(1). Harvard University Press, Cambridge, Massachusetts.

1971b *The Pottery of the Mayapan: Including Studies of Ceramic Material from Uxmal, Kabah, and Chichen Itza*. Papers of the Peabody Museum of Archaeology and Ethnology Vol. 66(2). Harvard University Press, Cambridge, Massachusetts.

Stone, Andrea J.

1995 *Images from the Underworld: Naj Tunich and the Tradition of Maya Cave Painting*. University of Texas Press, Austin, Texas.

Taube, Karl Andreas

1992 The Major Gods of Ancient Yucatán. S*tudies in Pre-Columbian Art and Archaeology*. 32: i-v, vii-viii, 1-160.

Thompson, J. Eric S.

1957 Deities Portrayed on Censers at Mayapan. *Current Reports: Carnegie Institution of Washington Department of Archaeology* 2(40): 599-632.

Tozzer, Alfred M. (editor)

1941 [sixteenth century] Landa's Relación de las Cosas de Yucatan. Papers of the Peabody Museum of American Archaeology and Ethology, Harvard University. Cambridge, Massachusetts.

Verdugo, Cristina, Kimberly Zhu, Kaline Kassadijkova, Lara Berg, Jannine Forst, Alison Galloway, James E. Brady, and Lars Fehren-Schmitz

2020 An investigation of ancient Maya international dental modification practices at Midnight Terror Cave using anthroposcopic and paleo genomic methods. *Journal of Anthropological Science*. 115:1-8

Vidal-Lorenzo, Cristina and Patricia Horcajada-Campos

2019 Water Rituals and Offerings to the Maya Rain Divinities. *European Journal of Science and Theology*. Vol. 16(2): 111-123.

Vogt, Evon Z. and David Stuart

2005 Some Notes on Ritual Caves among the Ancient and Modern Maya. In *In the Maw of the Earth Monster: Mesoamerican Ritual Cave Use* edited by James E. Brady and Keith M. Prufer pp. 155-185. University of Texas Press, Austin.

Weaver, Eric, Nicolas Dunning, Michael P. Symth, Beth Cortright, John G. Jones, and Chasity Stinson

2015 Preliminary Investigation of a Ritual Cave Site in the Puuc Region of Yucatan, Mexico: Actun Xcoch. *Journal of Cave and Karst Studies* 77(2):120-128

Woodfill, Brent K.S.

2021 Contextualizing Caves within an Animate Maya Landscape: Caves as Living Agents in the Past and Present. *religions* 12:1-18