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MIRRORS AS PORTALS:
IMAGES OF MIRRORS ON ANCIENT MAYA CERAMICS

by

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B.A. Hood College, 2010

A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Arts
in the Department of Anthropology
in the College of Sciences
at the University of Central Florida
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ABSTRACT

The Maya believed there were multiple worlds in addition to the human world. Portals connected these worlds and allowed active engagement between the Maya and their gods. Without portals and the ability to communicate between the worlds the Maya belief system could not function. Evidence suggests the Maya believed reflective surfaces – mirrors and water surfaces – were portals to spiritual worlds. In this thesis, I examine the portrayal of mirrors as portals in Maya art, focusing on mirrors in scenes painted on ceramics. Combining archaeological, iconographical, and linguistic data I argue that mirrors functioned in service to ritual as an essential gateway between humans and the gods and were two-way portals between earthly and spiritual worlds. I specifically examine fifty-one scenes on painted ceramic vessels involving mirrors to interpret and document their function as portals between worlds, how they were used in courtly life and what they may have meant to the people who used them. This research contributes to a deeper understanding of the relationship between the Maya, their gods, and a particular aspect of material culture – mirrors – and how the elite used mirrors and their relationship with the gods as a source of power. I conclude that the gods are not omnipresent and that mirrors portals are always active and strategically placed for the gods to have the best view of the world of humans.

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CHAPTER ONE: INTRODUCTION

Cosmology and worldview were central to the culture of the ancient Maya. The Maya believed there were multiple worlds in addition to the human world including an upperworld, underworld, primordial sea, and Xibalba (Bassie 2002, Christenson 2007, Knowlton 2010). Portals connected these worlds and allowed active engagement between the Maya and their gods, which was fundamental to their belief system. Portals are integral to Maya mythology and the belief system. Evidence suggests the Maya believed that reflective surfaces – mirrors and water surfaces – were portals to spiritual worlds (Schele and Miller 1983, Blainey 2007, Taube 1992). In this thesis, I examine how mirrors were portrayed as portals in Maya art focusing primarily on the representation of mirrors in narrative scenes on painted ceramics. Maya painted ceramics offer a rich body of artistic expression depicting the Maya in palace settings and engaged in ritualistic behavior. Continuing research and scholarship have advanced our understanding of the ancient Maya. Nevertheless, these scenes continue to be universally enigmatic offering a window into a mysterious culture. I make a close examination of a significant body of scenes that involve mirrors and attempt to interpret and document their function as portals between worlds, how they were used and what they may have meant to the ancient Maya. I believe mirrors functioned as two-way portals that the gods could always access whether the humans were using them or not.

The ancient Maya had an extraordinarily rich and expansive tradition of visual culture that was able to convey both narrative storytelling and complex concepts of mythology and cosmology within a highly decorative and aesthetically pleasing presentation. Additionally, the visual culture is central to reconstructing and understanding many aspects of Maya religious life

due to the destruction of most of the written documentation during the conquest era (Christenson 2007, Knowlton 2010). With so little written documentation, it is impossible to know with certainty how mirrors existed in Maya life: who had them, how they were used, how they fit into people's lives and what people thought about them. Artifactual mirrors are found in ritual deposits and burials which indicates their importance but does not indicate how they were used (Blainey 2007, Kovacevich 2016, Gallaga 2016a). Art begins to get at that question.

Much work has been done by archeologists exploring the religion and mythology as well as the daily lives of the ancient Maya. Through a close systematic examination of artistic visual evidence this thesis will explore where those two realms meet, the interactions between the 'earthly' world and the 'spiritual' worlds, how they cross into each other and communicate. It is about the door between worlds, and how important that door is to the functionality of the worldview. This thesis will argue that, although mirror imagery in Maya art can sometimes depict commonplace ideas such as vanity or affluence, its real significance arises from the idea of the mirror as a portal to other worlds. This research will contribute to a deeper understanding of the relationship between the Maya, their gods, and a particular aspect of material culture - mirrors - and how the elite and royalty used mirrors and their relationship with the gods as a source of power. It will help illustrate that portals are integral to their entire belief system.

Significance

The Maya Vase Database by Justin Kerr (2019) has assembled an extensive photographic record of painted images on Maya ceramic vessels. Through a careful detailed review of this database and scholarly literature regarding how mirrors are depicted in these paintings, I have

identified fifty-one images that include mirrors. A large portion of these paintings depict scenes in palace settings. Some portray gods but most are elites engaged in activities with mirrors. Thus, they provide a view of how mirrors are being used. Nevertheless, like much of Maya culture the scenes depicted on painted ceramic vessels are enigmatic and mysterious.

In order to advance understanding in this area by analyzing and interpreting the mirror scenes it is first essential to understand the cultural context including Maya mythology, the physical mirrors owned and used by the Maya which have been recovered archeologically, as well as the words for mirror in the Maya language. This study intends to systematically look at mirror portals first as earthly Maya artifacts then as narrative elements in the written Maya mythologies to provide that context and perspective for a careful examination of mirrors portrayed on painted ceramics.

Mirror iconography and mirrors in the archeological record exist but are not extensive. Mirrors are specifically a part of the archeological record and are specifically portrayed in the painted images but there is nothing in either that explicitly indicates that they functioned as portals. Nor do mirrors as portals appear specifically in the mythology or cosmology. Additionally, although the mythology and cosmology describe a cosmos that consists of multiple worlds, portals between those worlds are implied rather than specifically described. In this thesis I intend to discuss evidence that supports mirrors as portals in analyzing the action portrayed in scenes on painted ceramics and demonstrate that the scenes are in fact illustrating mirrors functioning as portals. Additionally, the analysis of the images will examine the crucial connection between ritual and mirror portals. The mirrors function in service to ritual as an

essential gateway between humans and the gods and are in fact are two-way portals between earthly and spiritual worlds.

Thesis Organization

Chapter two discusses what has been learned from the archeological record of Mesoamerican mirrors. It includes what is known about the materials and methods used in their manufacture, their appearance and reflective quality and what has been determined about their ownership, value and usage. From there consideration is given to what the reflective characteristic of mirrors likely meant to the Maya. This includes a review of the Mayan words used to represent mirrors and reflectivity. This information will be used to compare and contrast actual Maya mirrors and what is known about their usage with their appearance in the painted images and how they function in those scenes.

Chapter three provides a description of the Maya cosmology and its multiple worlds with an emphasis on communication and transition between worlds. It discusses the sources of our knowledge of the myths and gods that animate this cosmology and describes key creation myths. The mythological origin and explanation of why access and communication between the earthly and supernatural worlds is necessary for an understanding of the importance and function of mirror portals. Occurrences of both portals and reflective surfaces are described as well as creation stories, with reference to the primordial sea as a possible reflective surface portal. This chapter illustrates the importance of portals to the Maya and provides a foundation for understanding how and why the mirrors portrayed in the paintings are functioning as portals.

In chapter four I present my sample, methods, and data. I begin with a description of the method of collecting and identifying the images that I have analyzed. It then includes a complete numeric listing of all the images analyzed accompanied by a comprehensive description of each one with an emphasis on how the mirror is placed within each scene.

In chapter five I compare and contrast the images from chapter 4. I identify patterns of use and whether the different types of use and representations imply different meanings or different relationships to mythology. I discuss recurring themes found in the imagery as a way of gaining an understanding of the significance of what is happening in these scenes and of the evidence that supports mirrors' function as portals and communication devices.

Chapter six addresses the underlying Maya beliefs that support mirrors' function and position, how they were used by the Maya, what they actually meant to the Maya people and why mirrors hold this position of importance. Both the archeological record and the artistic record confirm that mirrors were a part of the material culture of the elite. These dark stone and mosaic mirrors would produce hazy or fractured reflections at best. Nevertheless, in the painted ceramic scenes, mirrors hold positions of prominence. The mirrors in these scenes are of a consistent stylized form that indicates they carried iconographic meaning to the Maya. That the mirrors were understood to be portals between the earthly and spiritual worlds is a convincing argument for why mirrors are prominently featured. This fits squarely in Blainey's reflective surface complex in which "all luminescent surfaces are perceived as exceptional renderings of liminal space, seen as the threshold between the natural and spiritual realms (2007:28)." Additionally, the scenes consistently involve ritualistic behavior – rituals that would connect the

performer with the gods via the agency of a mirror portal; a two-way portal through which the gods interacted with their creation and humans passed praise to their gods. The elites' ownership and control of mirrors as a means of communication with the gods would be a commanding source of religious and political power.

CHAPTER TWO: MIRRORS IN MAYA LIFE

Analyzing and interpreting mirrors as portrayed in Maya ceramic painting first requires a foundation in what is currently understood about the physical or tangible record of mirrors in Maya cultural life. Physical mirrors that have been recovered from archeological sites and the words in the Maya language that indicate “mirror” and “reflection” will be discussed in this chapter as background to my analysis of mirrors portrayed in the paintings.

A distinction must be made between mirrors as physical artifacts and mirrors as portrayed in art. A full understanding of the function of mirrors as portals can only be discovered through art, myth and culture, not from actual mirrors. While the functions of real world mirrors and artistically depicted, symbolic mirrors are invariably interrelated, my approach is to view mirrors in art as their own entity because in art an object can reach beyond its function in the real world, while also being limited by artistic conventions and the differences between the depiction of mirrors in art and actual physical mirrors. Nevertheless, it is essential to understand the nature and characteristics of physical mirrors as experienced by the Maya. Understanding physical Maya mirrors is in turn necessary for interpreting and understanding the painted images of mirrors on Maya ceramics.

Linguistically, the words for mirror in the Maya language provide an important linkage between reflective or shiny qualities, portals and mirrors. This linkage provides further insight into what mirrors meant to the ancient Maya through the language they used to represent a cultural concept. Words and images are both symbols that conjure meanings and associations in the mind. Understanding the meanings and associations to the words indicating mirror and

reflection adds insight and depth to understanding the images of mirrors depicted on painted Maya ceramic vessels.

Ancient Maya Mirrors

Ancient mirrors have been found from Peru up to the southern United States (Gallaga 2016a, 2016b, Blainey 2016). The archaeological record shows that most ancient Mesoamerican groups made and used mirrors of both solid stone and mosaic stone style. However, mirrors are relatively uncommon in the archaeological record.

Several types of stone suitable for making mirrors were available in the area including obsidian, mica, hematite, pyrite, ilmenite, and magnetite (Carlson 1993, Carlson 1981). Mirrors of these materials would not have presented as clear an image as we see in glass mirrors today. These polished stone mirrors presented a dark reflection, and mosaic mirrors produce a fractured reflection (Blainey 2007, Healy and Blainey 2011). These materials could only provide little more than 50% reflectivity at most, 21% for magnetite, 28% for Hematite, 55% for pyrite, and only about 5% for obsidian (Lunazzi 1996). Water in a dark bowl would have about 4% reflectivity (Lunazzi 2016).

It was in the Early Classic period that mirrors became flat and were made in a mosaic style. Mosaic mirrors were typically made of pyrite while obsidian mirrors were single stone (Lunazzi 2016). Pyrite is much more reflective than obsidian, however obsidian is much stronger and does not degrade like pyrite. The earliest of mosaic mirrors seem to come from Teotihuacan (Gallaga 2016a). In Teotihuacan, mirrors have been found in ritual deposits in the Pyramid of the Sun, the Pyramid of the Moon, and the Temple of Quetzalcoatl (Taube 1992). These are all

structures of significant religious, social and political importance. That mirrors were located in these sites indicates their importance in all these realms of Maya life. Teotihuacan owed much of its power to control over obsidian (Saunders 2001).

The typical Maya mirror was a mosaic of polished stone on a slate backing which was sometimes carved, similar to those made by Teotihuacanos (Blainey 2016). The predominant interpretation is that the primary function of mirrors was divination and scrying and not for vanity, although vanity use would be possible. In this interpretation those diviners were seemingly seeing something or someone else in the mirror, and the mosaic may have also given the impression that only 'gifted' people could use the mirror (Healy and Blainey 2011). The dark, distorted images produced by this type of mirror may have encouraged individuals to claim a skill in interpreting what they see.

As defined by Gallaga (2016a) a pyrite mirror consisted of a base, adhesive layer, pyrite layer, and perforations. These were most commonly rectangular or circular. Pyrite was the most reflective stone, but also the most degradable (Lunazzi 1996). Pyrite was also used for beads and dental inlays. It is an instable material, and this makes it hard to recover these mirrors. Sometimes all that is left is a yellowish powder. It is more common to find the mirror backings in the archeological record. This may also be due to the degradation of the adhesive used on mosaic mirrors. The backings were made of stone, ceramic, wood, or other material. Because of durability, stone bases are what are most found in the archaeological record. Stone bases were often carved with scenes or painted with stucco. Interestingly, when worn or otherwise, these carvings would not have been visible. They were most commonly slate or sandstone (Gallaga 2016b)

A large portion of the mirrors that have been found have holes in the backing which could have been used to attach them to clothing, headdresses, or some type of stand (Dennett and Blainey 2016). There are different types of holes found in these mirrors (Gallaga 2016a). Presumably the different types were for different uses: for headdresses, pectoral pendants, clothing, or to hang on a wall, for example. But it is hard to know for sure (Carlson 1993, Gallaga 2016a).

Uniform mirrors made of a single piece of stone required large enough pieces with minimal imperfections. These would be heavily polished. Metal tools were not used by the ancient craftsmen. Many scholars believe these mirrors were one of the most difficult and time-consuming items the ancient Mesoamericans made (Gallaga 2016b). All this contributed to their value (Nelson et al. 2009). This is another reason why they are not commonly found.

While making solid concave mirrors, two stones are rubbed together, creating one concave piece to be polished while the other became convex. It appears that the convex piece was often then ground into a concave mirror itself, going from tool to product. (Carlson 1981, Lunazzi 1996). Modern experimentation has estimated that these mirrors required 800 to 1000 hours to produce just one mirror. This could take 100 to 150 days (Gallaga 2016a).

Mosaic mirrors would not require such large pieces. Mosaic mirrors were seamlessly and expertly assembled which would likely have required a skillful artisan. The pyrite pieces of the mirror would have taken considerable time to shape and polish. The pieces were fitted together extremely tightly and intricately, the exactness of which is a significant feat of craftsmanship. One mirror can contain as many as 50 tesserae. Each of the pieces also had to be equal thickness.

The polygon pieces have four to nine sides (Gallaga 2016b). According to Gallaga (2016a) the size of the tesserae ranged up to four square inches. Because they were made of smaller pieces, these mosaics mirrors could be made larger than solid stone mirrors which required one perfect unbroken slab of stone (Taube 1992). Backings and baskets may have helped prevent breakage. It is more common to find pieces of mirrors and backings than to find complete, intact mirror and backing assemblages. Fragments of pyrite and hematite have been found that have been fashioned into distinct shapes indicating that they were probably originally part of a mirror or some other made object (Gallaga 2016a, 2016b).

Most archaeologically recovered mirrors are found in ritual caches and elite burials (Blainey 2016:180, Friedel and Schele 1988:556). Their inclusion in these contexts supports their use as ritual objects. According to archaeologists, some mirrors found in burials appear to have been part of the deceased's clothing (Matsumoto 2013). Mirrors may have been worn on clothes by the living as well. Olmec mirrors were worn as pectoral pendants and the Maya may have done this as well (Carlson 1993). The wearing of mirrors would be for symbolic or esthetic reasons and not for functional purposes.

Mirrors have been found in domestic contexts, which Kovacevich (2016) argues were production locations. Mirrors were extremely difficult to produce, and this fact alone makes it unlikely that average class people would have had them for domestic use. It is possible that in the domestic context, mirrors were used to start fires, but there is no conclusive evidence of this (Matsumoto 2013, Taube 1992, Gallaga 2016). It is hard to start a fire with a mirror and for spiritual purposes average people may have settled for other cheaper or more available shiny

objects such as water. There may have been sumptuary laws and restricted ritual knowledge that precluded the non-elite use of portals (Kovacevich 2016).

It is difficult to tell what monetary or exchange value was placed on mirrors. Multiple lines of evidence indicate that mosaic mirrors were a prestige item. Mirrors may have been used to trade or for high-status gifting. The craftsmanship that was needed to achieve the precision of mosaic mirrors also means that they were made almost exclusively for the royalty and elite (Healy and Blainey 2011, Taube 1992). The stones required to produce mirrors were not scarce but may have had to be transported some distance to reach certain sites (Nelson et al. 2009, Lunazzi 1996). The difficulty of making them likely influenced value. It was a time-consuming process which required a lot of skill. It is hard to say esthetically if one type was valued above others (Nelson et al. 2009).

In addition to the prohibitive cost of owning mirrors, perhaps there were social rules that limited who could possess mirrors. The artisans who made mirrors may have been controlled by the elite to provide only them with mirrors (Gallaga 2016a). These artisans may have been elites themselves, a status that came from their ability to make mirrors. Possibly only elites were allowed to learn to make mirrors. It seems entirely plausible that some spiritual ritual was incorporated into the crafting of mirrors (Kovacevich 2016).

Obsidian was used more in Early Postclassic period mirrors (Gallaga 2016). Obsidian is a volcanic glass that was used for tools, including blades used for bloodletting. Volcanoes and mountains were considered sacred places. Obsidian blades are closely linked with spiritual rituals; sacrifice, bloodletting, feeding the gods, etc. Obsidian is associated with the underworld

and is a weapon of death. Death causes a journey through the underworld in the afterlife. The dark color of obsidian holds significance (Saunders 2001).

When the Spanish arrived in Mesoamerica, they exchanged mirrors more like our modern mirrors with the people for goods (Lunazzi 1996). With the introduction of Spanish/European mirrors, the production of stone mirrors slowed down (Gallaga 2016b). According to Saunders (2001) the Spanish didn't grasp the spiritual significance of obsidian and commissioned obsidian tools, such as for shaving, in the absence of their usual European style items. As part of the Maya subversion of Christian conversion, they included obsidian onto the crosses the missionaries erected (Saunders 2001).

Our understanding and interpretation of mirrors in Maya art and iconography is grounded in an understanding of the materials and manufacture of Maya mirrors and the archeological context in which they are found.

Language

Language is both a vehicle that defines and transmits cultural heritage through shared stories and beliefs and it is a form of cultural artifact in its own right. The way that meaning coalesces around words and the association of words to nuances of meaning affects the way that a culture is understood. Reading and thinking about how Maya language scholars have pieced together meaning in the Maya vocabulary emphasizes this point. In contrast we tend to take those same points for granted in thinking about, or not thinking about, our own language. The Latin root of the English word mirror is to admire, which emphasizes the vanity aspect of mirrors. Even so there are associations in our culture between mirrors and visions and other realities, as in

the Snow White and Alice tales for example and using mirror in that sense of the word is readily understood by most English speakers. This section looks at what scholars have determined to be the words used to indicate mirrors and reflection in the Mayan language and these words' associations to variations of meaning. I will then use that information in analyzing the painted images on ceramics to understand if the concepts of shininess or reflectivity are evident in any way in those images. I expect that these concepts will not be explicit in the paintings but rather in the mind of the viewer as an element of iconographic association.

Spoken Language

There are two modern spoken Mayan words which mean mirror. *Lem* is used in the Eastern language region and *nen* is used in the Western and Central language regions. *Nen* is the word most commonly linked to mirror hieroglyphs. However, *lem* may be closer to what the ancient Maya used (Schele and Miller 1983, Blainey 2007).

Many of the definitions of *nen* and *lem* are words that can be characteristic of mirrors, such as shine, gleam, and reflect. Schele and Miller (1983) discuss these various definitions and it seems clear that any reflective surface was considered a mirror (Schele and Miller 1983; Healy and Blainey 2011). Uses like flashing, lightning, and flame not only pertain to light refraction, but have relevance to Maya divination practice and spiritual ritual (Taube 1986, 1992).

Nen and *lem* can be compounded with other words and phrases, such as glass or pupil, to denote shininess (Schele and Miller 1983, Taube 1992). Here we see one of many links the Maya made between mirrors and eyes. *Nen* and *lem* are also incorporated with verbs like 'to reflect'. *Il*,

which is strongly tied to the T24 glyph, cannot stand alone as a word for mirror, but functions in a similar fashion when incorporated with other words (Matsumoto 2013).

The many meanings associated with *nen* and *lem* can be tied together when viewed with spiritual symbolism. *Nen* and *lem* can be used in relation to cognition. In this context, they mean to imagine, meditate, think, and know (Schele and Miller 1983). The English word ‘reflect’ can function similarly. These definitions can also be titles for people with supernatural powers such as diviners or seers. The mirrors association with the head, specifically the eyes and the forehead, could be related to the face’s function of externally reflecting a person’s thoughts and feelings through facial expressions (Matsumoto 2013, Taube 1992).

Nen and *lem* were also used during contact period to reference attaining office, accession, or heir designation. This likely stems from a title given to rulers and religious leaders meaning mirror of the people or community and mirror of the world (Schele and Miller 1983). The central meaning of these words as mirror and reflection and their association shown here with accession to positions of power will be discussed in future chapters in the context of the political power that emanates from the Maya belief that rulers had the ability to communicate with gods through mirror portals.

Written Language/Hieroglyphics

There are many glyphs that have been determined to represent mirrors and reflective surfaces which are characterized by parallel lines inside a ringed outline (Matsumoto 2013). These lines are often curved and thought to be like the light reflection of concave mirrors (Lunazzi 1996). These include T617, T24, T245, and T121.

T617 is the most common glyph associated with mirror. It is the whole logograph and T24 is a supplemental affix (Blainey 2016). The T617 glyph identified by Miller as ‘mirror,’ is used in inscriptions on the Tablet of the Sun and the Palace Tablet at Palenque. Stuart (2010) calls it the shiner glyph. The events chronicled on these tablets are, according to Schele and Miller (1983), believed to be events designating an heir apparent and one may be an actual accession to the throne. If so, both types of events could mark someone becoming the mirror of the world.

The distinction between writing and iconography can be fuzzy when it comes to the Maya. Schele and Miller (1983), and Blainey (2007) have claimed that some of these mirror glyphs have been incorporated into Maya art as god markers on the arms and legs of gods. Blainey theorizes that god markers could label gods as invisible or visible. Alternatively, I wonder if perhaps god markers label which world the god is in or from.

Like the anthropomorphic glyphs, gods portrayed in art can sometimes be seen with mirror glyphs on their forehead or part of their headdress. This is most common for God K. God K, also known as the Classic period K’awiil, is rarely shown without a mirror glyph on his forehead (Miller and Taube 1997). Schele and Miller (1983) argue that this trait belongs to him, even when it is used by other divinities. This forehead mirror is usually being penetrated by a celt or a smoking torch.

Visual Language (or Monumental)

Words can be powerful symbols, and symbols can be a language of their own even if they are not words. Stuart (2010) argues that the Maya worshiped all shiny stones, which overlaps

with Blainey's (2007, 2016) 'reflective surface complex,' which argues that they revered all things shiny regardless of material. Lithic mirrors fit both these theories. We can see symbolism relating to mirrors in other lithics and other shiny materials. This symbolism can be a language without words.

Mirrored-image blocks of hieroglyphic texts have been found on monuments, ceramics, and codices. It has been argued that these blocks are meant to function in a similar spiritual way as mirrors (Matsumoto 2013). This supports the idea that their iconography and symbolism thoroughly saturated every aspect of symbolic life and was meant to be immersive. The Maya may not have separated writing from art and, in this case, used their writing to symbolize a less tangible concept (Stone and Zender 2011). Mirrors and text both can provide the viewer with an image.

If this is true, the reversed writing may have been meant to be seen from the other side of the portal, where it would not appear reversed (Matsumoto 2013, Freidel and Schele 1988). That these reversed passages are often found on doorways further supports the association with portals (Matsumoto 2013). Walking through the doorway was a metaphor for entering another world and made the viewer a participant in the symbolism. Additionally, the subjects of many of these passages are political ceremonies, accession, assertion of rule, heir designation, legitimacy (Matsumoto 2013). The subtlety and complexity of the many connections between mirrors, portals, transitions between worlds and transitions to power illustrate the range of associations that may have occurred to both artist and viewer of the painted images of mirrors on ceramic vessels.

Stuart (2010) argues that ‘plain’ stone monuments or stela were intentionally left blank and that they may have been polished to resemble shiny stone celts. He believes that, like carved stela, these were ceremonial markers of the passage of time. As we saw earlier, the word *lem* can be translated as lightning bolt. In the mythology, Chac has a sacred axe, which creates lightning, also called Chac’s flash. This axe is a stone celt, which, according to Stuart, has the *lem* reflective hieroglyph. The ‘strike of Chac’ is the belief that lightning strikes create shiny stones or celts, sacred ‘lightning stones’ (Stuart 2010, Miller and Taube 1997). Stuart suggests that these stone stela are penetrating the ground, in the way Chac’s sacred axe would, like a lightning stone. He suggests these monuments are a manifestation of Chac. A similar celt can be seen penetrating God K’s forehead mirror.

Mirror-Eye Connections

Shiny reflective objects were sometimes used in sculptures as the eyes of deities (Lunazzi 1996, Taube 1992). Mirrors have been associated with eyes (Miller and Taube 1997). This could be because one would see their eyes when looking closely at a concave mirror, or because one can see their reflection in another’s eyeballs (Lunazzi 1996, Schele and Miller 1983). However, it is probably more than that. Eyes themselves are like mirrors. With modern science we now know that eyes function in a very similar fashion to mirrors. Eyes show people images of the world the way mirrors show people the world. Perhaps, if the Maya believed what they saw with their eyes was a reflection, then looking at a mirror would show them a reflection of a reflection, which would in fact be the true world which, for them, included the gods. This would mean that they believe they could not truly perceive the gods with their own eyes.

Conclusion

The mirror lets someone see their face, the one part of a person they cannot otherwise see. Maya stone mirrors could be used for reasons of vanity, but only to a certain extent. There is speculation on other practical uses for these mirrors. It may be possible that the Ancient Mesoamericans used mirrors as interior light sources like the Ancient Egyptians (Lunazzi 2016). When worn on the forehead or body, a mirror could reflect the sun and the wearer would appear ethereal and illuminated (Carlson 1981, Taube 1992, Lunazzi 2016). It may have been possible that mirrors and light were used to communicate over long distances, but this is speculation (Lunazzi 2016). Experiments have shown that starting fires with mirrors is difficult but not entirely impossible. Starting a fire with a mirror could have seemed like magic (Gallaga 2016a).

The clearest conclusion from the physical record is that mirrors are indications of status and wealth. They have mostly been found in elite contexts: burials, tombs, caches, ritual sites, elite residential areas. The time and level of craftsmanship necessary to turn the materials available into functioning mirrors alone indicate a special status. Only the elite class and high religious significance could have warranted such effort.

That the Maya understood mirrors to be portals to the spiritual world is more difficult to establish from the physical evidence alone. However, even these practical uses lend themselves easily to magical and spiritual interpretations. Thinking simply of how a mirror reflects objects that seem to be actually inside the mirror helps to understand how the Maya could believe that they were openings into another world. With that in mind it is easy to see how reflective surfaces led to mirror divination. Mirrors became the middlemen between the people and the spiritual allowing communication with the ancestors and the gods.

CHAPTER THREE: PORTALS IN MAYA MYTHOLOGY

The ancient Maya had a rich and varied system of spiritual beliefs and practices. Although the source materials of Maya mythology that are available to us today include distortions introduced in the course of the European-Christian conquest, the stories and gods that make up the Maya cosmology describe an elaborate and creative attempt to understand, explain and affect the natural world. Similarly, the Maya engaged in a variety of elaborate rituals intended to communicate with the gods (Bassie 2002, Christenson 2007, Knowlton 2010). This chapter addresses the spiritual world of the Maya with a focus on how portals figure into Maya mythology; how they connect the earthly and spiritual worlds and how ritual relates to portals. Additionally, it will consider mirrors, or at least reflective surfaces, and their association with portals within the mythological world. This data will then be used to analyze and interpret mirror imagery from painted ceramic vessels.

Sources for Maya Mythology

Much of what is known about Mesoamerican mythology comes from narrative images found in art and hieroglyphs incorporated into art and on monuments. These include stone stelae found in cities often marking political and ritual events such as accessions and war; decorated buildings, both painted and carved; and painted and carved ceramics; and other durable artifacts (Bassie 2002). This is because the written stories contained in books were burned during the European conquest of Mesoamerica. A central aspect of the conquest was Christian conversion of the native population. To that end the missionaries systematically burned or destroyed records of what they considered to be a heretical set of beliefs (Christenson 2007, Knowlton 2010).

The books of *Chilam Balam* and the *Popol Vuh* are two such books that survived. Both versions were written post-conquest, either from memory or from books that still existed at the time and were kept hidden from the missionaries. These versions, while extremely helpful, are problematic in that they may contain strains of a Christian influence and may have lost pieces over time (Christenson 2007, Knowlton 2010). It certainly couldn't capture a sense of how the stories may have evolved over the pre-conquest centuries.

Mesoamerican mythology was not a single unified and stable set of stories and beliefs. Differences developed regionally and changed over time. For example, we can see distinctions between different groups in Mesoamerica: the Maya, the Olmec, Teotihuacan, the Aztecs. The books of *Chilam Balam* and the *Popol Vuh*, as well as the Dresden, Madrid, Paris, and Grolier codices illuminate the variety within Maya mythology.

The *Popol Vuh* is Quiche and the *Chilam Balam* is Yucatecan. There are hundreds of gods and deities that have different names and attributes, sometimes consistent across regions, sometimes the same or similar gods have different names in different regions (Bassie 2002). There is a consistent style, or "Mayanness," throughout. Unfortunately, the destruction during the conquest era means that we likely will never understand how the variations developed over time. Some of this can be gleaned from stelae, monuments, buildings, pottery, and other remaining artifacts. These, however, illustrate specific episodes within the mythography and cannot capture the full narrative the way that a literary work could.

Portals in the *Popol Vuh*

The creation myth in the *Popol Vuh* is only one of several versions told in Mesoamerica. The *Popol Vuh* version begins with darkness, the primordial sea and a primordial couple. In this story the gods conceive of how to separate the land from the sea in a conversation and it is made to happen through language. Thus, the recitation of words can open portals, as on the command of the gods, the earth rose from the sea. The primordial sea can then be interpreted as the first portal (Christenson 2007).

Once the earth is formed, the gods make several unsuccessful attempts to populate the earth – animals, mud people and wooden people are all unsatisfactory. In the course of these failed attempts, the gods realize that what they truly want is a being that can celebrate and praise them and their creation. Eventually, they successfully create humans from maize (Christenson 2007). However, the gods obstruct human vision and understanding out of concern that they would be too much like gods. So, if humans are to worship the gods, they need a way to communicate with them (Blainey 2007). This need to communicate is a foundation of the Maya belief in portals between the earthly and spiritual worlds. The Maya believed that portals between worlds existed within a number of objects and natural phenomena such as caves, flowers and the subject of this study – mirrors (Taube 1992, 2010a, 2010b).

These humans emerge from a cave or caves, Chicomoztoc, usually in a mountain. The Quiche mountain of origin is called Paxil. As passageways into the earth, caves were understood to be portals to the underworld (Miller and Taube 1997). Archaeological evidence shows that the ancient Maya used caves for ritual purposes and left offerings to the gods within (Morehart et al. 2005).

The *Popol Vuh* contains a story within the story of the creation of earth and humans. It is the story of two sets of twins. The older set of twins is called to play ball with the gods of the underworld, Xibalba. There, the gods defeat the twins in the ball game and sacrifice them. The head of one of the twins is turned into a gourd and hung from a tree. The head in turn impregnates a maiden of Xibalba who proceeds to climb up to earth. On earth she gives birth to the second set of twins, the Hero Twins. The Hero Twins are also summoned to Xibalba, but they defeat the gods of the underworld, retrieve the remains of their father and uncle, and ultimately ascend to the sky and become the sun and the moon (Christenson 2007). The action of this seminal Maya myth moves between the earthly world to the underworld multiple times and then to the heavenly world. The movement between worlds in this story illustrates how the existence of different worlds and connections linking the worlds was central to the Maya system of beliefs.

Portals in the *Chilam Balam*

The *Chilam Balam* is a compilation of sub regional Yucatec versions of Maya creation myths. It contains less clear narrative storytelling than the *Popol Vuh*. It also contains a thorough melding of ancient Maya and Christian elements. Adam and Eve, Lucifer and Jesus make appearances in the *Chilam Balam*. In addition to Mayan it contains words and passages in Spanish, Latin and in places what is considered to be indecipherable gibberish. It is possible that this lack of clarity was intentional and that outsiders should not understand it. As a result, it is especially challenging to decipher what constitutes unadulterated Maya beliefs.

As in the *Popol Vuh* the action of the stories of the *Chilam Balam* also takes place within a cosmos that is divided between spiritual and earthly worlds. Three books of the *Chilam Balam*

contain very similar creation narratives, probably all drawn from the same older version. These are the *Chilam Balam* of Chumayel, of Tizimin and of Mani. This myth, as well as other books of the *Chilam Balam* describe the multi-leveled cosmology as in the *Popol Vuh*. The events take place both in the heavenly and earthly worlds and reference is made of the underworld. In the heavens God C is physically abused and removed from his station as rain god thereby anticipating apocalypse on earth. The human world is wiped out by flood a couple of times. God K steals corn from Lady Quetzl-Lady Lovely Cotinga who is the lush, green verdant earth. That leaves the earth sterile and the people heartless. God K takes the corn to “the thirteenth plane of the sky so then the maize husk resided there and only the tip of the corncob was here on earth (Knowlton 2010: 61).” The heartless people are removed by a flood, which is reminiscent of fate of the wooden people in the *Popol Vuh*. God K eventually descends to the earth with the seed corn to be reborn and bring fertility back to the earth.

In another creation story in the *Chilam Balam* of Chumayel the cosmos is created as the first divinities randomly follow footprints in a time before time. As days are created different aspects of the cosmos are created. When the earth is created it is connected to the earth by a stairway of water (Knowlton 2010).

These stories in which the action takes place in both the earthly and spiritual worlds and directly affect each other again illustrate how central the structure of different worlds and the passages between them were central to Maya belief. However, much of the ritual described in the *Chilam Balam* seems strongly influenced by Christianity. The rituals seem to be more like Christian prayer in response to the concept of original sin rather than the sense of offerings, sacrifice and nourishment seen elsewhere in Maya practices. To me this makes a difference in

expressing how the Maya communicate with their gods and even de-emphasizes the importance of physical portals. This is probably a distorting effect of Christianity on the original Maya concepts. Distinguishing Christian adaptations from original Maya customs and beliefs is particularly problematical in the *Chilam Balam*.

Structure of the Mythological World

The action in these stories occurs within the Maya cosmology that consists of separate worlds. There are three basic worlds in the cosmos: namely, the watery underworld, the earth, and the upper world. Portals connect these worlds, allowing gods and humans the ability to communicate and even travel between worlds. The underworld, Xibalba in Quiche and Metnal in Yucatec, was where all souls both good and bad went after death. It was generally, though not universally, believed that there were nine levels of the underworld; four down, four up, and one at the bottom. The underworld could be entered through caves or water. The earth may have also been the first and last level of the underworld as well as the first and last level of the upper world. The upper world is generally said to have thirteen levels; six up, six down, and one at the top. The levels of the under and upper world created a circuit through which souls, gods, and other things could travel for example, the sun and moon (Miller and Taube 1997).

The earth emerged through a portal from the primordial sea and floats on the primordial sea, which is why the underworld is often considered watery and why water is considered a portal. Water is also sacred and life bringing. The earth is often considered to be alive as a tortoise floating in water (Miller and Taube 1997). The insides of mountains (through caves) were believed to be the heart of the earth where ancestors dwelled and rain, clouds, and fog emerged (Miller and Taube 1997).

The axis mundi is a large cosmic tree at the center of the universe (Taube 2010b, Miller and Taube 1997). The roots are in the underworld and the branches are in the sky. The cosmic tree has four associated world trees in the cardinal directions. The maize god has strong ties to the axis mundi, using it for travel between worlds. There are portrayals of this with a quadripartite bowl in the middle and corn as the four directions, where the bowl is the portal (Taube 2010b). Sometimes the quadripartite bowl is a turtle carapace representing the earth turtle floating on the primordial sea, which the maize god is emerging through (Miller and Taube 1997).

Portals as Objects in Maya Mythology

The elements of these myths are important to understanding Maya culture and belief. For the purposes of this study the focus is on the concept of portals and how portals are necessary for communication and transport between worlds. Portals are the doorways to other worlds -- Upperworld, Underworld, primordial sea, Xibalba. In the Maya worldview, the different worlds were not separate, but like different rooms with portals as doorways.

The action in the myths plays out within this superstructure of different interconnected worlds. In the various Maya creation myths, the gods call into existence the earthly world separate from their heavenly world. Connection between these separate worlds is through portals. As described above, in the *Popol Vuh* both sets of twins travel to the underworld and the maiden climbs up to the earth. There are inherent, if not explicit connections between worlds. These stories depend upon portals connecting worlds.

In these stories, humans were created for the express purpose of praising the gods. Carrying out this purpose requires a way of communicating between worlds. Humans will have to have portals to the gods through which their praise can pass. Related to praise of the gods is the idea of nourishing the gods through offerings (Taube 1992, 2010a, 2010b). In this context the gods require human nourishment through various offerings. These offerings, whether sacrifices, bloodletting, aromas and smoke, or words of worship, also must pass through portals from the earthly world to the gods.

The restriction of the vision of the humans defines a relationship with the gods centered around access to knowledge (Blainey 2007, Taube 1992). In this relationship the highest level of human understanding will only be possible through connection or communication with the gods. This too will depend upon a method of access to the gods through ritual, and divination. Individuals who could demonstrate that they had that access to the gods achieved a status that imparted power and leadership.

Human death required a journey through the underworld with trials. At the start of the passage, the deceased entered through still water, sometimes riding in a canoe. The journey followed the same path as the sun and the moon through the underworld (Miller and Taube 1997). The living on earth could communicate with their dead ancestors through portals, just as they communicate with the gods. Or possibly the ancestors helped the living communicate with the gods (Miller and Taube 1997). Obsidian, one of the principal materials used in making mirrors, is associated with the underworld.

Flowers can line the road to Xibalba, also called the road of the sun because of the journey of the sun. Flowers can represent the axis mundi and are also believed to be portals (Taube 1992, 2010b). There is no strong link between flowers and mirrors or the ‘reflective surface complex’, but they are symmetrical and anything symmetrical seems to tie to mirrors (Taube 2010b).

While humans lived on earth and could enter the underworld, the mysterious sky and its levels is impenetrable by humans. It is only accessible to deities and gods, who had access to all worlds, and of course the sun and moon passed through it daily (Miller and Taube 1997).

Gods

Certain gods have closer ties to portals and their use. These include the creator grandparents, God D or Itzamnah and Goddess O or Ix Chel, and God K and Chac. Some manifestations of the sun and moon, whose orbit passes through the underworld and upperworld are also closely associated with portals. In some versions of the creation myth, the hero twins became the sun and moon after their exploits in the underworld (Bassie 2002, Miller and Taube 1997). God G or Kinich Ahau is a sun god who is not associated with the hero twins. According to Carlson (1993), Kinich Ahau wears a forehead mirror. This associates mirrors with the sun and possibly points to the use of mirrors as a light source reflecting the sun or starting fires using the sun.

The first gods called the earth from the primordial sea. The creator gods were also the first diviners (Christenson 2007). As the first diviners, they would have created divination itself, possibly even creating mirrors in the process. Maybe the reflective water surface of the

primordial sea was the original mirror; the first two-way portal from which the earth came through.

God D or Itzamnah, is a creator god linked to divination. He is the first priest, and invented writing (Bassie, Miller and Taube 1997). He is sometimes pictured wearing a beaded disc on the forehead with the *akbal* darkness sign that is believed to be an obsidian mirror (Schele and Miller 1983). His consort is Goddess O or Ix Chel. She is a goddess of fertility, pregnancy, and childbirth. Childbirth has obvious portal connections. She is also a god of divination and can be seen with mirror bowls (Miller and Taube 1997).

God K also known as the Classic period K'awiil. He is identified with Hurucan and Tohil (meaning obsidian), and meets with Gugumatz, the quiche Quetzalcoatl, to create the earth and sky in the *Popol Vuh* (Miller and Taube 1997). They called on Xpiacoc and Xmucane, the creator grandparents, to help create humans.

God K is rarely shown without a mirror glyph on his forehead (Miller and Taube 1997). Schele and Miller (1983) argue that this trait belongs to him, even when it is used by other divinities. God K's forehead mirror is usually depicted being penetrated by a celt or a smoking torch. Healy and Blainey (2011) point out that the other half of said object is presumably on the other side of the mirror/portal. These objects most often are torches and celts. There is also an object with a flared rim, which, based on a find in Petroglyph Cave in Belize, is a ceramic holder for pine slivers used in caves (Morehart et al. 2005). According to Schele and Miller (1983), the words for obsidian, pine, and torch are homophonous in some Maya languages and can be read

as *tah*. In their opinion, the objects penetrating God K's mirror are meant to designate the material of the mirror as obsidian. *Tah* may also be a name for God K (Schele and Miller 1983).

These gods with connections to portals are the most related to mirror imagery. All except Goddess O are shown wearing mirrors on their foreheads (Blainey 2007). God D and Goddess O are shown using mirrors. God K is not shown using mirrors but is associated with other portals and related concepts like water, caves and cenotes. This illuminates how mirrors were thought about, experienced, and used (Schele and Miller 1983, Miller and Taube 1997).

Rituals to Open Portals

The Maya practiced many forms of ritual from bloodletting to smoking tobacco and possibly hallucinogenic drug use. The underlying purpose of those rituals was to achieve some form of communion with the gods, whether seeking the gods favor affecting the natural world, such as ensuring a bountiful harvest, or simple scrying. Portals would be a way to that communion. Mirrors are not specifically mentioned in the mythology as portals to be used in this way. Ritual was essential to a mirror becoming understood as a portal. Without ritual, a mirror would remain a construction of rocks (Taube 1992). Ritual in essence activates the mirror as portal.

For the ancient Maya elite, positioning themselves as the possessors of the ability to communicate with spirits and gods would be essential for establishing their power and right to status and rule. Fostering the peoples' belief in their ability would have been important for consolidating power (Freidel and Schele 1988). Maintaining power would necessitate keeping the knowledge, methods and tools for communicating with the gods out of reach of regular

people. This could be achieved by restricting access. We know from the archaeological record that the material goods, in this case mirrors, were restricted to elites (Gallaga 2016a). It is likely that the elites and religious leaders similarly protected access to the knowledge, in this case the mystery of ritual, as a necessity to preserve and protect their power.

What is ritual and what is reality? To some extent ritual has everything to do with reality because it is employed to influence or change reality in some way. For example, rain rituals are meant to change the reality of the weather. In this case, the ritual is to turn on the mirror and contact the gods, two things that do not occur in reality. McGraw (2016) cites Gibson's "affordance theory" that stones and water and natural resources are what the environment afforded people or allowed them. It is this that led to their worship; things available in reality were worshiped and ritualized. Rituals were performed in special locations like caves and cenotes (Gallaga 2016a). They could have included fancy dress, dances, and music.

With regards to mirror divination, McGraw also cites pareidolia, or the human propensity to see patterns and meaning in seemingly random objects. This seems to be relevant to how the mirrors and divination work psychologically. According to this, some people are more likely to see things like faces in the clouds than others (McGraw 2016). These hypersensitive people would make good ritual performers. Additionally, the fractured image of a mosaic mirror presents a better opportunity for this part of psychology than a solid image. This is likely the explanation for the mosaic mirrors. As mosaics, they would not have given a clear reflection; in fact, it would have produced multiple smaller reflections (Blainey 2007). The eyes need a 'mildly chaotic image' to see things that are not readily apparent or not there at all. Humans tend to attempt to make order out of chaos.

The explanation for this phenomenon may actually be found in the *Popol Vuh* where the gods decided to limit the capability of humans to see (Taube 1992, Blainey 2007, Christenson 2007). They were not meant to see and understand the world as well as the gods could. The Maya made the choice to produce mosaic mirrors. Perhaps they intentionally used mosaic mirrors, not just to aid pareidolia, but as a manifestation of this story (Blainey 2007).

To further what could be seen in a mirror some rituals are meant to induce an altered state of consciousness. The ancient Maya used bloodletting, drugs, fasting and other ritual acts to skew their reality by entering a trance or altered state of consciousness. There may have been sensory deprivation in caves (MacLeod and Puleston 1978). Like cave portal rituals, Blainey (2016) argues that the ancient Maya used psychoactive substances when performing communication rituals with mirrors.

It is likely that the ancient Maya did not possess the stigma around substance use that we see today. It was probably viewed as a tool no different than making mosaic mirrors to induce pareidolia. However, substance use is difficult to prove from the archaeological record. We know they used alcoholic enemas as portrayed in art and bloodletting is well documented which may have induced hallucinations. There are mushrooms in the area that would be hallucinogenic (Blainey 2016). Anthropomorphic mushroom sculptures have been found at sites, but this isn't proof of their consumption. A mirror was found with a mushroom sculpture at Kaminaljuyu, and there are known instances of mushrooms being consumed in post-conquest rituals from an Aztec account and a modern account from the 1960s (Blainey 2016).

In the end, just the possession of a mirror and the implication of its use could be enough to increase a person's power level, whether they used it to commune with the gods or not. Emulating the gods was a huge part of life, especially for the elite who solidified their elite status by being as like the gods as possible (Schele and Miller 1983).

Other Manifestations of Portals

So, if like mirrors, portals need to be opened through ritual, where else can we see portals, and are they always tied to objects like mirrors? Bloodletting is one of the ways of communicating with other worlds. It does not appear to be tied directly to a physical portal like a mirror. Artistic portrayals of bloodletting often include smoke and vision serpents. Taube (2010a) points out that blood tastes like the sea and that water is the blood of the earth. Perhaps blood was also used in bowls, like water in a mirror bowl. If so, then blood is a reflective surface and therefore a portal.

Bloodletting rituals lead to visions, or communication with gods and dead ancestors. It could be that it was just low levels of blood that led to an altered state of mind, and thus visions. Bloodletting and autosacrifice were meant to feed the gods human blood because the gods were owed a piece of humanity for their creation. The blood was collected in a bowl or on paper which was then burned (Taube 1992). Smoke also fed the gods, and the smoke is where the visions appeared. This could also have been a result of pareidolia.

There are obvious ties between death and blood. Death requires a journey to the afterlife and a trip through a portal. The Paddler Gods are deities who paddled a canoe that carried the dead through the afterlife. One paddler is an aged jaguar who is designated night, while the

other, a stingray, is day. They could appear when the bloody paper was burnt in bloodletting rituals (Miller and Taube 1997).

Blood can be portrayed as a snake, tying them to vision serpents. Vision serpents also emerged from the smoke of the burning blood paper (Taube 1986). God K's serpent leg could be portrayed as a vision serpent. Gods and spirits emerged from the mouths of snakes, tying blood portals to portals as mouths and caves. Blood is also associated with flowers, which is another form of portal (Miller and Taube 1997).

Caves are obvious portals, with the first people emerged from a cave of origin after their creation by the gods (Taube 1986, MacLeod and Puleston 1978). This cave of origin is usually within a mountain and we see this design recreated throughout the Maya world. As the cave of origin, caves brought life. Within real caves in the region have been found artifacts, including mirrors, and bones showing that these were sacred locations where rituals were performed. They may have practiced bloodletting and sensory deprivation to induce the altered state associated with rituals.

In addition to bringing life, caves also brought breath, wind, clouds, rain, and lightening; and so, unsurprisingly, Chacs are believed to have lived in caves. Chacs control rain from the four cardinal directions (Taube 2010b). In an account by Allen Christenson (2007) the *nuwal*, the ancestral spirits, live inside a sacred cave, in the center of a mountain. Spirits are like breath and wind from a cave (Taube 2010b).

According to Taube (2010b, 1992), the Teotihuacano's associated round mirrors with roundish cave mouths, as well as other round things like eyes, shields, and flowers. It is likely

that the Maya did as well. Round mirrors may have been meant to represent other round things. If so, were square and rectangular mirrors meant to be symbolic of something else? A round shape may not just represent cave openings, but the earth itself, if the earth is round like a turtle carapace divided into four cardinal directions. It all fits with the structure of the world the cave being the hole in the earth that leads to other worlds.

Cenotes are basically both a cave and water, both of which are considered portals. Sometimes they are even located within caves. Cenotes, like caves, are a known location of ritual offerings and sacrifice. Archaeologists have found all kinds of artifacts in cenotes. For some sites, a cenote was the only source of life-giving water for the population (Taube 2010a, 2010b). And, like caves, Chacs were thought to live there. People took pilgrimages to cenotes, especially to the sacred cenote at Chichen Itza. Clemency Coggins suggested the sacred cenote was thought of as a great round mirror for divination (Miller and Taube 1997).

Conclusion

Maya cosmology is built upon a structure consisting of several different worlds. Within that structure, gods and humans exist in different worlds. That cosmology is dependent upon a connection between worlds through which praise, visions, offerings, gods and even humans can pass. This point is not made as a declarative statement within the myths, it is more of an underlying assumption without which the myths fall apart. Portals provide that connection: portals through which the earth emerged, portals through which the dead pass, through which ancestors and gods are accessed. Portals provide two-way communications between gods and humans that allow praise, offerings and nurture to reach the gods and visions to reach humans.

To the Maya, several natural objects are associated with portals – flowers, caves, cenotes, water and other reflective surfaces for example. And principally for this study, mirrors, which may be the only totally human-made portal in the Maya culture. However, the power of these portals did not exist entirely on their own, they depended on ritual. Ritual invoked the power of the portals. Ritual in effect turned on the portals and opened the door to other worlds. Without ritual these physical portals would have lacked their mystical power and would have been to the Maya what they are to us – simply caves, water and mirrors.

Access to the combination of physical portals and knowledge of the rituals that opened the portals meant power. Within a culture of strong belief in the reality and necessity of communication with the gods, control of the means of communication formed a strong foundation of power. The political and religious elite would have to demonstrate and preserve their control over portals and rituals in order to maintain power.

CHAPTER FOUR: MIRROR PORTALS IN MAYA CERAMIC ART

Data Sample and Method

Marc Blainey's work provided a considerable base of images from which I was able to build upon from Justin Kerr's database (Blainey 2007, Kerr 2019). I was able to identify several additional images not included in Blainey's study, most of which were added after his study. I have examined fifty-one images for this study. The Kerr database, although it does not include every possible ceramic painting – more images are occasionally added – it does provide a substantial and broadly representative data set. Most of the vases in the Kerr database are unprovenienced and undated, but presumably they span a large timeframe. With advances in the understanding of mirrors someday it may be possible to identify developments of ideas over time and geographic area.

I carefully examined each image in the entire Kerr database in an effort to ensure that every portrayal of mirrors from the database was included in my study. In this chapter I describe the entire scene of each image, not just the mirror, exploring what I believe to be happening in these scenes and how the mirror fits into each moment or moments.

The vast majority of mirror imagery is that of standing or held mirrors (Blainey 2016). Most of these scenes are of rulers and elites typically in palace settings, but there are also images of gods and supernatural creatures. The Kerr images are rollouts of vases that are cylindrical. When I say figures or objects are on the left or right, my descriptions are based on the digital images. It seems, for the most part, that the rollouts were delineated at appropriate places within the scene. However, where the scene begins and ends in the image was created arbitrarily by the

photographic process and the original editors of the photos (likely the Kerrs). There is normally, but not always, one figure that is central to the action of each scene. This figure is probably of the highest status and is frequently in the center of the scene and usually the largest figure. In my descriptions I refer to this character as the principal figure. In most of these images, the other figures are facing towards the principal figure.

Presentation of Data

K505 (Figure 1) has two male anthropomorphic figures. A humanoid monkey scribe is holding the mirror and dances on the right, facing left while looking into the mirror. The mirror stone is not visible but has front protrusions. There is a small, lipped backing and large quantity of fabric flowing off the back. A humanoid dog is seated, talking into an *olla*. There is a hieroglyphic face inside the *olla*. An *olla* is not unlike a miniature cave and it is therefore possible that the jar in this case is serving as a portal and the dog is communicating through the portal with the hieroglyphic face. These are not human figures, but they do not have god markers.



K505 (Figure 1)

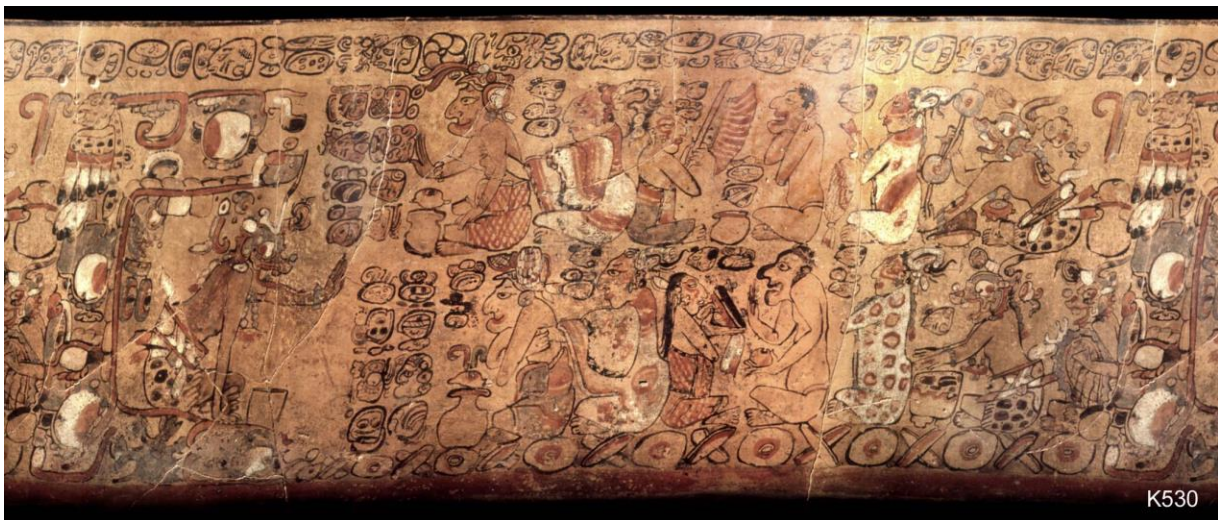
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K530 (Figure 2) has fourteen seated figures on two planes. The principal figure is on the left seated on a throne facing right. He is larger than the other figures and is labeled in the database as Itzamnah. He has his hand out in a gesture and a bowl or cup in front of him. He does not have god markers. All but two of the other characters are facing him and some are holding objects, most are probably offerings. The database says that it is, “four toothless old deities preparing for a ceremony to Itzamnah two will take enemas, one is inhaling drugs, the last looks like he is applying make-up while looking into a mirror, all to the accompaniment of musicians (Kerr 2019).” This does appear to be a man applying makeup while a woman faces him holding a mirror. They are on the lower plane. The mirror stone is black with front

protrusions, a ceramic backing and fabric behind it. The man looking into a mirror is not Itzamnah, but one of the lesser figures in the lower right. He is holding a pot of something, possibly makeup, and has his other hand up as if in the process of application. It is hard to tell if he is human or not, there are no god markers, but his face isn't quite human. There are other people in this scene, many of whom are clearly not human.



K530 (Figure 2)

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K559 (Figure 3) has three women, two of whom are the moon goddess. One of them is giving birth to a rabbit whose foot appears to be going through the mirror portal or else is simply blocked from view. The mirror stone is black and has a basket backing. The other moon goddess is nursing the rabbit while the third figure holds the rabbit. The other woman is seated on a throne indicating that she may be important, perhaps an elite showing her importance through her association with the goddess. She is facing right while both moon goddess figures are facing left.



K559 (Figure 3)

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K625 (Figure 4) has four male figures. Two are seated on the left facing right, one is standing on the right facing left, and the principal figure is seated on a throne in between, facing left. The principal figure is smoking while looking at the mirror. The mirror stone is black with a lipped ceramic backing and a hollow circular stand. The figure sitting on the other side of the mirror is also smoking. There is a curtain across the top. The Kerr Database says there are offerings of cloth and food beneath the rulers' throne (Kerr 2019).



K625 (Figure 4)

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K764 (Figure 5) has five figures, three males and two females. The principal figure is looking into a mirror held by a standing male attendant. The mirror stone is black with ceramic backing and has a round white stand that could be rolled fabric, all of which is in a bowl held by the standing servant. The principal figure is one of only a few who are depicted looking to the right into a mirror. He is in a twisted position; his head is facing right and his body is facing left. Another attendant is kneeling with a plate or bowl, probably of paint since he appears to be painting the principal figure's behind. The principal figure could not actually see what this attendant was doing in the mirror because the mirror is too small, though this is what his twisted position implies. Mirrors are never portrayed much bigger than the one in this image and this may be because of manufacturing techniques. These two male attendants are on the right of the ruler facing left towards him while the two women are standing on the left facing the right

towards him. One of the females is holding a mask or a head and the database suggests it might be a death mask and this scene is the ruler preparing for his funeral.



K764 (Figure 5)

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K767 (Figure 6) is described in the database as an “aftermath of war scene. Palace scene with warriors and prisoners and palanquin (Kerr 2019).” There are thirteen figures in this scene on various levels of what appear to be stairs. The figures are engaged in various activities, but there are two principal figures. On the right near the top is a throne with a caped-seated figure. His body is facing forward with his head facing toward a visitor who is kneeling at the base of the throne facing right. Neither the database nor Blainey (2007) label this image as including a mirror; however, what I interpret to be a mirror is in front of the throne, which is a common placement location for a mirror. It is somewhat blurry, but it appears to have a black mirror stone with ceramic backing and dotted fabric wrapped around it. See also K7288 and K7797.



K767 (Figure 6)

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K787 (Figure 7) has three standing male figures and a kneeling dwarf. The largest is the principal figure who is facing left with the dwarf kneeling right behind him also facing left. In front of him are two standing figures facing right towards him; the one directly in front is holding the mirror. The mirror stone is black with front protrusions and looks like it has a ceramic backing. The figures are elaborately dressed. They are wearing animal headdresses; one is a bird the other may be a wolf and the principal figure might be a bear. The principal figure and the attendant not holding the mirror are holding staffs. The Kerr database labels this scene as a ruler dressing for war (Kerr 2019). The ruler is holding a ceremonial bar. These were often

used in period endings and may represent the sky being held by the ruler (Miller and Taube 1997). In fact, the mirror is aimed more at the ceremonial bar than at the rulers' face. The ceremonial bar appears to be a serpent with two faces on the ends, which is typical of ceremonial bars. If so, it may also be a portal, in which case there are two portals facing each other.



K787 (Figure 7)

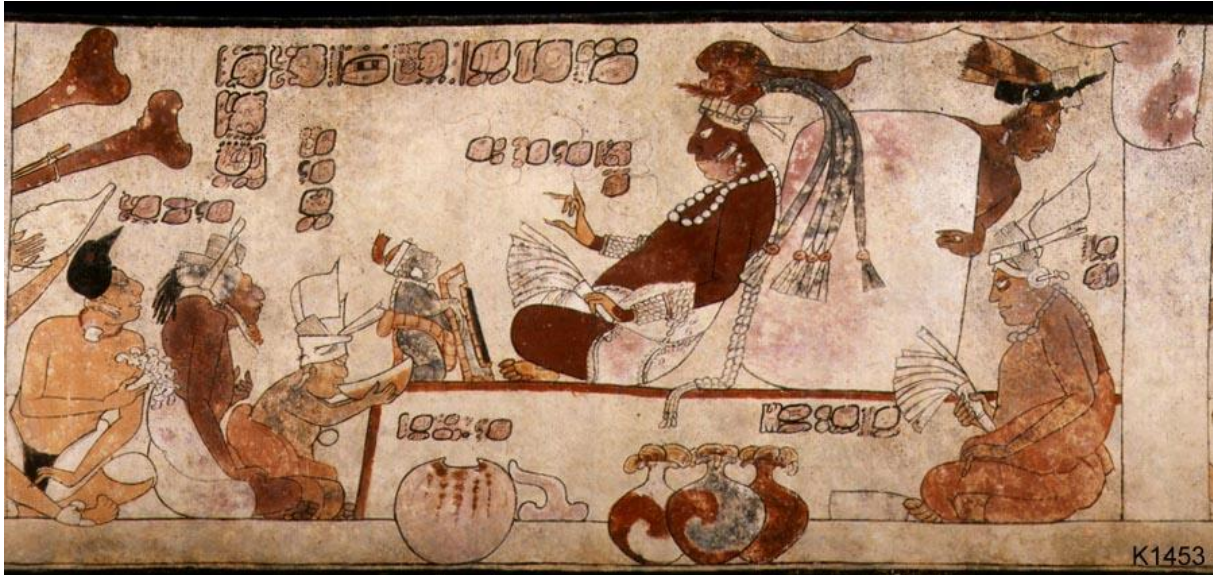
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K1453 (Figure 8) has six male figures. The principal figure is seated facing left on a throne with a small dwarf in front of him holding the mirror in his direction. Perhaps this dwarf, who is very tiny, is actually a depiction of a wooden carved figure such as the one at the Princeton University Art Museum (Princeton University Art Museum, New Jersey. Seated male

figure with a frame for a mirror, A.D. 600–800. Object number y1990-71. Catalog Raisonne K4484a-c). The mirror stone is black and has a decorated frame. The database calls this scene a palace party. There does appear to be someone playing an instrument, possibly a conch shell, but the whole person is not depicted, as if they are in another room. One figure is behind the back of the throne, possibly hiding. He is looking to the right as if he's not supposed to see the mirror. Or perhaps he's holding up the back of the throne that the king is leaning against. There's another figure in the right of the frame, behind the king, who is seated on the floor facing left holding a fan that is identical to one the king is holding. On the left of the frame, in front of the king and behind the dwarf holding the mirror, there are three figures seated on the ground facing right. The first one might be a dwarf. He is smaller than the figures behind him. He is drinking from a bowl. The last figure is holding a bouquet of something. It could be flowers, which are associated with portals, or it could be mushrooms (Blainey 2016, Taube 1992, 2010b).



K1453 (Figure 8)

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K1454 (Figure 9) has four male figures. The man on the right is facing left. In front of him is the principal figure facing left toward the mirror. He is in front of a throne, wearing wings and it looks like God K is on the forehead of his headdress. He is facing a mirror held by a figure whose body and the mirror he is holding are facing right, but his head is turned away left. This mirror stone is not shown as black but is white with a frame, probably ceramic. The figure looking toward the mirror has his eyes closed and is holding several small, white oblong objects in his left arm that may be tamales. The fourth figure on the left is kneeling and holding a large mask to the right. The mask may be for the ruler to wear. Like the figure next to him, his head is turned away towards the left. The database indicates that this is a dressing scene and maybe that is why two figures have their eyes averted or possibly their lower status would not allow them to look into a portal.



K1454 (Figure 9)

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K1463 (Figure 10) has four male figures. It is hard to tell if they are seated or standing because of degradation. The principal figure is an obese seated male facing left. To his right, and facing left, is the figure holding the mirror. The mirror stone is black with a flat backing. There is something, possibly smoke, just above the mirror, but it is degraded. This is one of only a few scenes where the principal figure is not looking at the mirror though its position clearly shows he could at any moment. The two figures on the left are facing right towards the principal figure. One figure might be offering him something. The database says he is wearing a war badge (Kerr 2019).



K1463 (Figure 10)

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K1728 (Figure 11) has six male figures. The figure furthest left is standing facing right and is holding instruments. The next figure to the right is also standing with his body facing forward and his head turned to the right. He is waving torches or incense. The next two figures are seated also with their bodies forward and their heads to the right facing the principal figure. The principal figure is seated facing left on a throne with his hand up. On the right is a standing figure with his back turned and his head facing left. He may be dancing. He is holding a torch towards the principal figure and is possibly smoking. In this scene the mirror is below the throne facing left. The figure in front of the throne would have the best view of the mirror; however, no one appears to be looking at or directly using the mirror. There is a small lidded ceramic vessel in front of the mirror, also under the throne. The mirror stone is black with a frame and a round back holding it up. All of which is in a bowl and looks a lot like the mirror in K764.



K1728 (Figure 11)

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K1790 (Figure 12) has eleven male figures on three planes. Only one figure is standing upright on the upper right side. He is facing left towards a kneeling figure facing right towards him holding a mirror. They are the only two figures on the center plane. The planes on this vessel may represent separate scenes. The database describes them as three levels of activity. The mirror stone is black with a wide ceramic back.



K1790 (Figure 12)

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K2025 (Figure 13) has eight male figures. On the far right a figure is in a gymnast's bridge position with another figure seated on his chest. They are both facing left and have very white faces with freckles. The next figure is the principal figure and is facing left. His right arm is in the air and his left arm is on his back. He may be bound at the knees. He is facing a kneeling figure who is holding a knife to him and appears to be holding a mirror towards him, although the mirror also appears to have a kickstand holding it up. We cannot see what color the mirror stone is, only the backing, which looks like it has feet in order to lay it flat, in addition to the kickstand. It is a large mirror. The person holding the mirror also has a white face with freckles. Behind this person is a standing figure facing right who is holding a spear at the principal figure

and wearing a translucent mask. It is clear that these two figures are threatening the principal figure with a long knife and a spear. Behind them, on the left, are three figures, right on top of each other, facing right towards the principal figure. The figure in front is holding an object that looks like a small paddle. There is something above these figures that looks like a large dandelion. The database says “The scene may show the execution or capture of a ruler. The man being threatened by the spear is also being shown a mirror. Since only rulers are shown this type of mirror, he may be awarded an honor on his death (Kerr 2019).”



K2025 (Figure 13)

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K2026 (Figure 14) has three seated male figures. This image is degraded. The figure on the right is facing left and the database suggests that he is a dwarf. He is smaller than the other

figures and appears to have a hunched back. The figure on the left is facing right and is holding a large bird. The principal figure is in the center on a throne facing left. He is holding an object in his hand like the bouquet in K1453, again this may be flowers or mushrooms. He is holding it to his mouth as if he is eating it. The mirror is on the throne facing him. The color of the mirror stone is not shown. Only the lipped ceramic backing and hollow circular stand can be seen. Underneath the throne there are several rabbits. The database says “Dave Kelly suggests the rabbits are phases of the moon leading to an eclipse. D. Stuart reads the text as, ‘There are rabbits, there are no rabbits’ (Kerr 2019).”



K2026 (Figure 14)

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K2695 (Figure 15) has four standing figures. The figure on the right is facing left and holding the mirror. The mirror stone is black with a small frame, possibly ceramic, and a sack backing. The sack backing is quite unusual, it does not resemble the loose fabric backs but looks more like a pillow. The next figure is the principal figure. His body is facing out and his head is

turned to the left. The mirror is aimed at him, but he is not looking at it. He is standing in front of a throne holding a spear in his right hand and a small paddle in his left. The next figure is female and is holding out a mask towards the principal figure. She is wearing an elaborate dress and holding a fan. Her body is facing out and her head is turned right. The figure on the left is facing right and holding a shield with a face on it.



K2695 (Figure 15)

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K2711 (Figure 16) has three male figures. The principal figure is seated on a throne with his body facing out and his head turned left. There is a figure in front of the throne kneeling with their arms crossed in front facing right towards the principal figure. Behind the kneeling figure is a standing figure holding a large rectangular object labeled as fabric. In this image the mirror is

underneath the throne facing left and held up by a hollow round stand. The mirror frame and stand are shown as white. It is almost unnoticeable. No one is looking at it. This image is similar to K1728.



K2711 (Figure 16)

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K2914 (Figure 17) has ten figures on two planes. Alone on the lower plane is a dwarf who has smoke or something near his mouth. There is a mirror or a plate lying flat before him. It is just a flat black lipped slab with feet. If it is a mirror, then it is one of two in this scene. The database says this scene might be a marriage negotiation in which the dwarf is overseeing the tribute that includes this mirror as well as other objects pictured. The upper plane has the principal figure in the center, his body facing out and his head turned to the left towards a mirror. The mirror stone is black with a lipped ceramic back with two feet or protrusions off the back and a circular stand. He is making a hand gesture just like K1453 and is eating something just like in K2026. There is a lidded ceramic vessel between him and the mirror. There are two

seated figures on the left, one of whom may be a dwarf. Behind the principal figure and to the right is a group of people, the first of whom is also eating the thing that might be a mushroom. The next figure might be eating something too, but it is shaped differently. Behind this group on the far right are two seated women, one of whom could be the bride.



K2914 (Figure 17)

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K2929 (Figure 18) has two figures facing each other with a mirror in between them. The mirror stone is black with a white backing, white protrusions on the front, and a hollow circular stand. It is facing the figure on the left who does not look human. There is a design that probably represents speech coming from its mouth. (Blainey 2011, Kerr 2019) There is also a design

behind him that may be coming from his behind like a death god. The figure to the right appears human. The two figures may be in different worlds conversing through the mirror.



K2929 (Figure 18)

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K3203 (Figure 19) has three male figures, but it is difficult to tell if one is the principal figure. One figure is kneeling on higher ground facing the back of the mirror. There is a figure standing behind him on lower ground facing right and another in front of him standing on lower ground facing left. This figure is standing in front of an empty throne. The mirror is on the throne. Though he is the only figure who could possibly see the face of the mirror, he has the simplest costume and is probably just an attendant. The mirror stone is black and has a wide round frame that resembles a flower. There is a hollow circular stand holding it up. There are bundles under the table that are probably offerings.



K3203 (Figure 19)

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F3813 (Figure 20) is a typical style of Hero Twins' scene where they are seated on thrones in two 'rooms.' The twin on the right is holding a box, probably a ceramic vessel, and looking into a mirror. The mirror has a lipped ceramic backing and is leaning against a wall. The stand appears to be two small pebbles. The twin on the left is looking at a bowl in his hands that is perhaps a mirror bowl filled with reflective water. There are markings on the bowl, and this twin has a bundle under the throne.

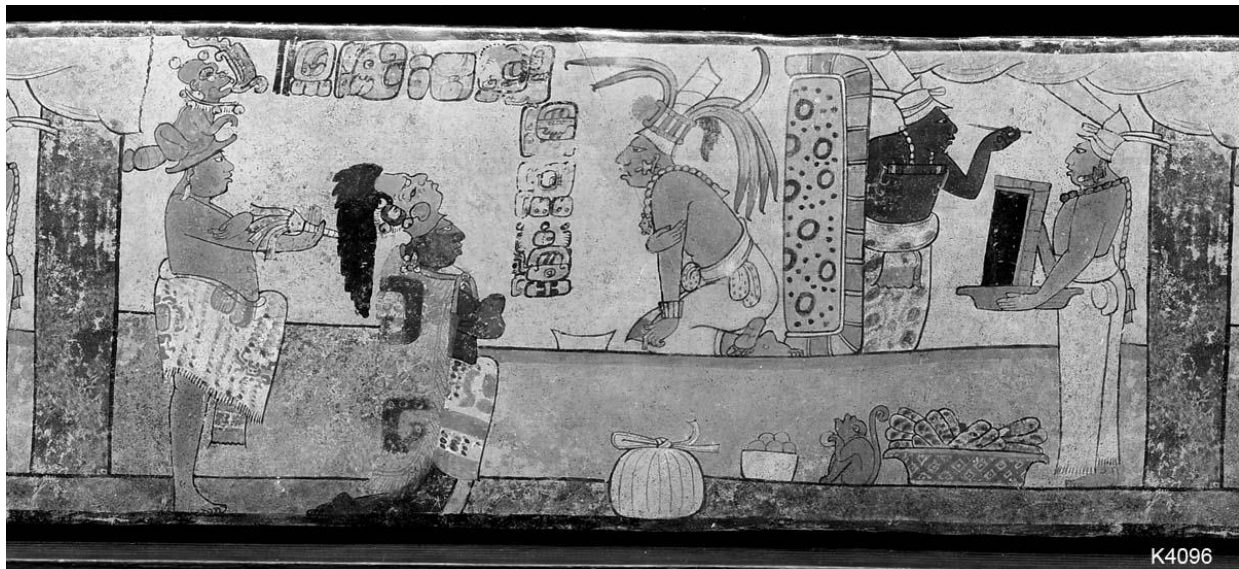


K3813 (Figure 20)

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K4096 (Figure 21) has five male figures. On the left there is a standing figure and a kneeling figure facing right towards a figure kneeling on a throne facing left towards them. He has his right arm and foot crossed over in an interesting pose. There is a bowl in front of him. Behind him is a partition. An attendant is standing holding a mirror facing left while another figure is clearly putting on makeup. The database labels this as the leader getting ready to see visitors while an attendant receives the visitors. Whatever is happening, this is one scene where the mirror is most clearly being used for practical purposes, not for divination. The mirror stone is black with a square frame. It has a kickstand and is stood within a bowl. There are offerings

and a monkey on the floor. This image is not included in Blainey's (2007); it was added to the database in 2007 probably after he completed the thesis.



K4096 (Figure 21)

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K4338 (Figure 22) has three seated male figures. The principal figure is seated on the right with his body facing out and his head turned to the left. He is making a hand gesture that may indicate that he is listening. He is looking into a mirror held by the figure to the left. This figure is facing right. The mirror stone is black with white front protrusions and has a lipped ceramic backing and fabric. There is a ceramic vessel between the principal figure and the mirror. The third figure is seated behind the mirror bearer facing right. He has his hands to his mouth and a bundle in front of him.



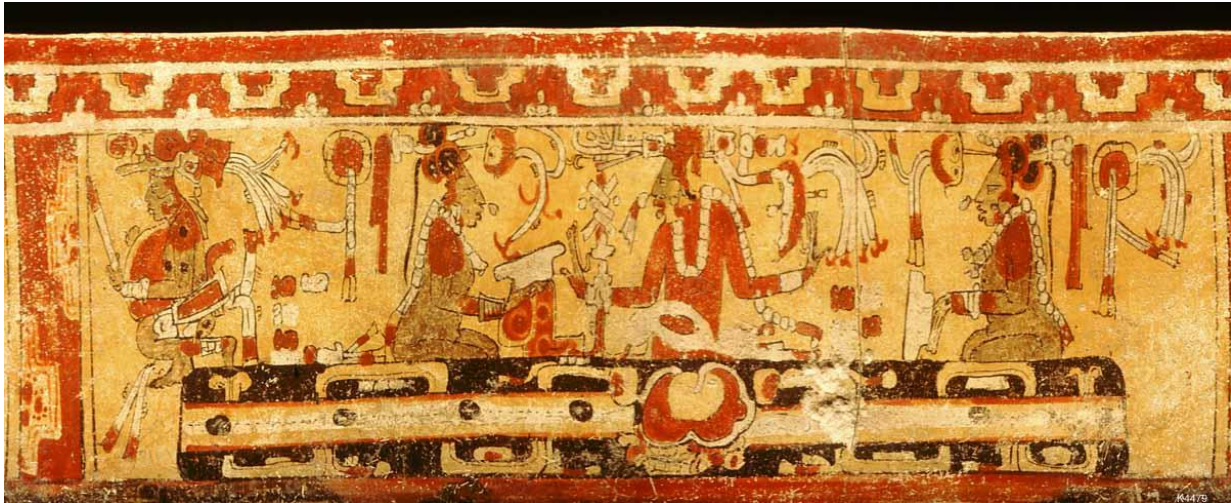
K4338 (Figure 22)

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K4479 (Figure 23) has four figures on a decorated throne that the database calls a monster throne (Kerr 2019). The figure on the right is female and is seated facing left and holding a mirror towards the left. The mirror is solid white and platter shaped. The mirror is aimed at the next figure though he is not looking at it. He is seated with his body forward and his head turned to the left. His hands are out to both sides and making the hand gesture. Seated to his left facing right is another female figure. This figure is gazing into a mirror that she is holding. This mirror looks just like the first one but has fabric on the back. The fourth figure is on the left and has his back to everyone and is stepping off the throne.



K4479 (Figure 23)

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K5233 (Figure 24) has three elaborately dressed standing figures. Two figures on the right are facing left towards the third figure who is dancing. These two are labeled as musicians in the database (Kerr 2019). The mirror is on the ground in front of the two musicians aimed at the dancer. The mirror is the typical lipped shape with a circular stand. The dancer would be reflected in the mirror, but his head is turned away.



K5233 (Figure 24)

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K5416 (Figure 25) has two mirrors. There is a group of three standing figures on the left side. The center figure is standing facing left holding a mirror up to his face. There's some degradation but the mirror looks pretty typical in shape with a small round back. His costume is the most elaborate of the three in this group, it looks like a rabbit on his headdress. He may be holding a small object in his right hand, or he may be making a hand gesture in front of the mirror. There's a standing male with arms crossed behind him facing him and a woman in front of him facing him and holding a medium sized ceramic vessel. The database says "2 views of a Palace in which a ruler or lord prepares for war. He is shown his battle-standard (the round object being held aloft) and offerings of tamales are present (Kerr 2019)." The second view is on the right and comprised of four figures. Three are seated on a throne and one is standing on the

floor holding a battle standard. On the left facing right is a seated male with arms crossed. On the right are a male and a female seated facing left. They both have their left hand on the knee and the right hand held up in front of their chest. The male is in front and has something in his hand that looks like the instruments used in the makeup application scenes. However, he cannot see the mirror which is facing away from him on the throne. It is unclear whether the mirror is facing anyone. The mirror has the lipped shape with front protrusions and a circular stand. The mirror appears to be floating a bit above the throne. There may be smoke or something coming out of the mirror, or that may be degradation marks. There is something behind the mirror that the database has identified as an offering of tamales.



K5416 (Figure 25)

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K5418 (Figure 26) has a fair amount of degradation making it difficult to discern what is going on. There are two or three degraded figures on the right; one may be a female. On the left side is the principal figure surrounded by two attendants on either side, both of whom have

elaborately shaped objects hanging from their hands. He is wearing an elaborate costume and dancing, facing right. There is a mirror on the floor facing him. It has a black mirror stone with a frame shaped like a flower very much like K3203. The mirror stand is unusual, it appears to be white with black spots.

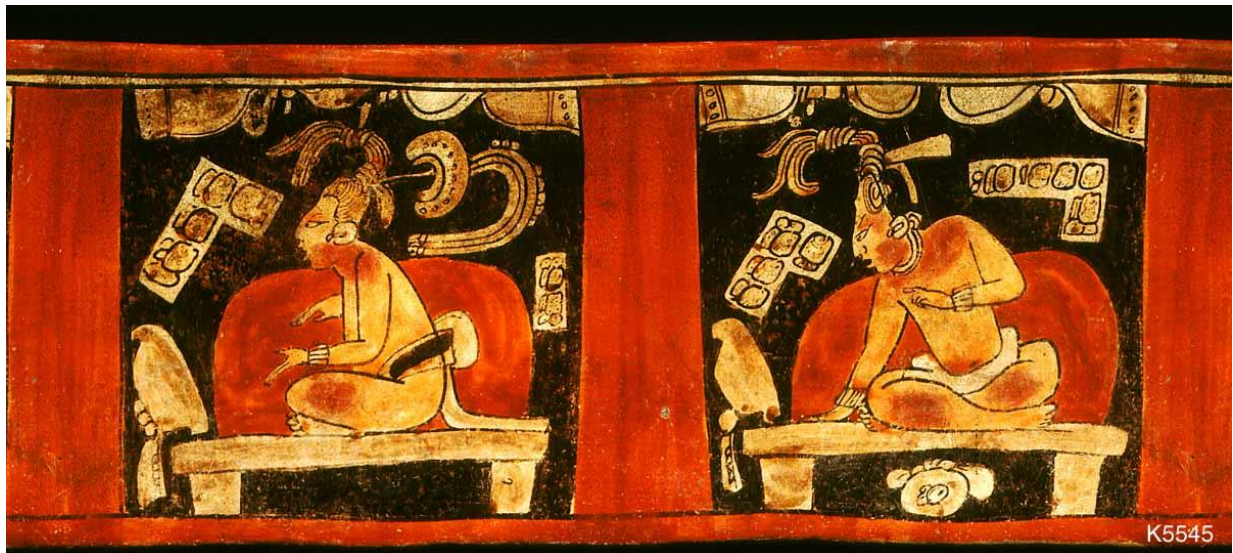


K5418 (Figure 26)

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K5545 (Figure 27) is a two-part throne scene like K3813. Both scenes have similarly shaped white lipped mirrors leaning against a wall or partition with a small piece of fabric dangling from the back. The one on the left has three small balls at the back while the one on the right has just one. Both seated figures appear to be conversing with their mirrors. There is a bundle under the throne on the right.



K5545 (Figure 27)

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K5764 (Figure 28) has two figures, Itzamnah and a figure with the head of a bird. The bird is on the left facing right, kneeling in front of a throne. He is holding a bundle of white fabric. On the throne is Itzamnah. He is seated with his body facing forward and his head turned to the left. There is a mirror in front of him on the edge of the throne. It is white with front protrusions and a circular stand.



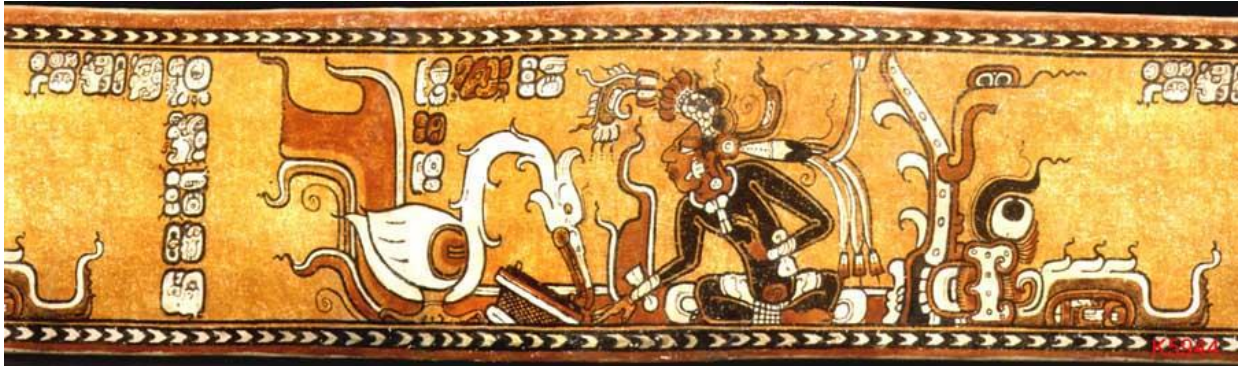
K5764 (Figure 28)

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K5944 (Figure 29) has a human figure and a bird. The human is seated on the right with his body forward and his head to the left facing the mirror. The mirror stone is black with front protrusions. The backing is white and possibly ceramic. The stand is crosshatched making it look like a basket. It is oddly cut off diagonally at the bottom edge of the scene. Behind the mirror is the large bird, whose head goes over and in front of the mirror. The database says there is Och Chan the bearded dragon, which must be the elaborate, somewhat abstract image extending behind both human figure and bird. The bird has a design on its wing reminiscent of a god marker.



K5944 (Figure 29)

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K6020 (Figure 30) is labeled in the database as “vomit ritual conducted by Goddess O (Kerr 2019).” There are eight figures in this scene. One figure in the center is seated on a throne and is clearly vomiting. He has an attendant on each side. On the right of the scene there are two women, seated on the same throne, facing left toward the vomiting man. The female furthest to the right is holding a small mirror up to her face. The mirror is rectangular with a black stone and a white frame. The tube-shaped object in her right hand looks like a makeup brush.



K6020 (Figure 30)

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K6187 (Figure 31) is a painted ceramic plate. The principal figure is in the center standing in front of a throne holding a battle standard. A figure on the left beside the throne is kneeling. He has a bird headdress. Another figure is on the right behind the throne. The mirror is on the throne to the right of the principal figure who is looking left, away from the mirror. The mirror has a white lipped front with protrusions, a ceramic back and a hollow oval stand. If anyone is looking at the mirror it is the figure with the bird headdress. This image was not included in Blainey (2007) because it was added to the database in 2008.



K6187 (Figure 31)

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K6290 (Figure 32) is an other-worldly scene. On the right is a human-like figure. Behind him is a large serpent creature. On the left face-to-face with the serpent is God N coming out of

his shell. On the ground between God N and the human is a mirror facing God N. The mirror is white and black with front protrusions and a circular stand that looks like a decorated rock. Although not identified as a mirror in the database or by Blainey (2007), it has all of the standard characteristics of the conventionalized mirror form. Therefore, I am confident that this is a mirror.



K6290 (Figure 32)

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K6315 (Figure 33) has six standing male figures. The two on the left are twisted awkwardly to the left. In front of them facing right is a man in elaborate dress with a headdress. The next figure is up on slightly higher ground. He is facing right and has something under his arm. The mirror is on the floor in front of him facing the next figure who is seated on a throne facing the mirror to the left. This mirror looks like it has a basket backing with a circular stand which is all in another basket. According to the database this could be ceramic painted to look like basketry (Kerr 2019). There is a figure standing behind the throne with arms crossed.



K6315 (Figure 33)

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K6341 (Figure 34) is a palace scene that employs a more sophisticated sense of depth and perspective than is typical in these painted ceramics. The principal figure is distinguishable in this scene in front of the throne. The database says he is dancing, and the position of his legs is similar to dancing scenes (Kerr 2019). However, there are a few factors that lead me to disagree. One is the figure holding his right hand, this looks like an attendant helping him stand up. The throne is at the top of three stairs and there are three figures kneeling on the stairs near the feet of the principal figure. To the right of the principal figure is a dwarf. On the left a kneeling figure appears to be holding a plate in one hand and something in the other hand. It is reminiscent of K764 where an attendant is painting the principal figure's body. Body painting is difficult to do to someone who is dancing. Behind the painting figure is a kneeling figure that is holding the mirror that the principal figure is looking towards. This is a rectangular black stone mirror with a frame and a kickstand all in a bowl. The bearer is pointedly looking away as in K1454. On the

left side of the scene are military looking figures, two on top holding shields and two on the bottom, one holding a spear. On the left a figure is holding something that the database labels a battle standard (Kerr 2019).

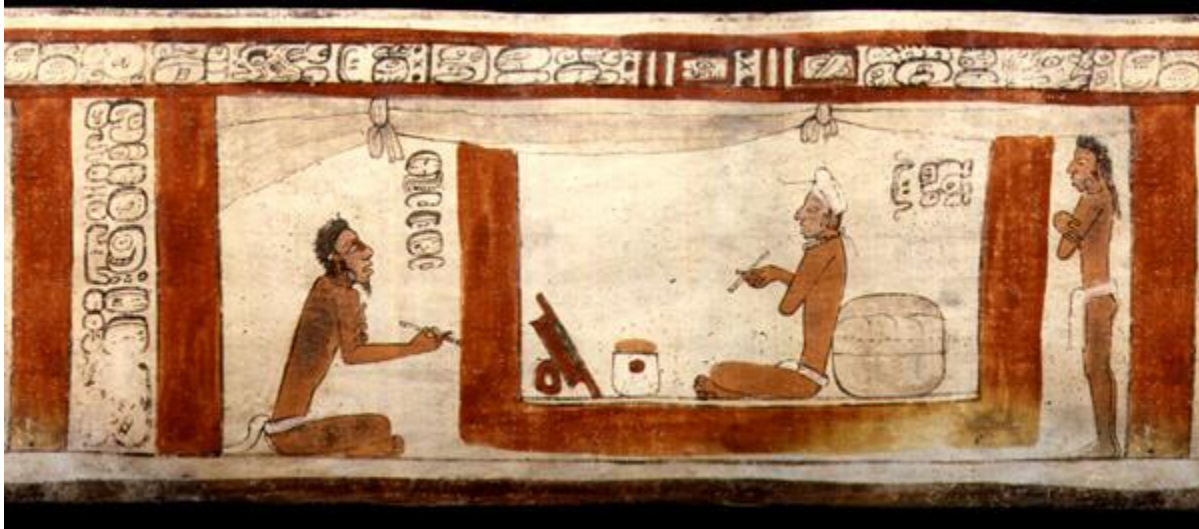


K6341 (Figure 34)

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K6437 (Figure 35) has three male figures. There is a throne in this scene that is different, it is more like its own room. To the left of the room is a seated figure facing right. According to the database he is a visitor and holding a smoking tube. To the right of the throne is a standing attendant. In the throne, the principal figure is seated facing left with a smoking tube. He is

facing a mirror that is in the throne with him. It is a black stone mirror with a lipped ceramic back and a hollow circular stand. There is a ceramic vessel between him and the mirror.



K6437 (Figure 35)

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K6666 (Figure 36) has five seated males. The figure on the right is seated with his body facing forward and his head turned to the left towards a mirror. This is a larger sized white mirror, almost translucent, with a kickstand and feet on the back. There is something beside the mirror partially obstructing it from view, possibly feathers. The next figure is facing the back of the mirror and may be wearing a mask. The other three figures are in different positions, one may be smoking or eating.



K6666 (Figure 36)

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K7265 (Figure 37) has Itzamnah seated on a throne facing left petting a dog figure. The mirror is underneath the throne not being looked at directly. The mirror is lipped ceramic with front protrusions and a hollow circular stand. It is placed facing left so that it could see Itzamnah and the dog.



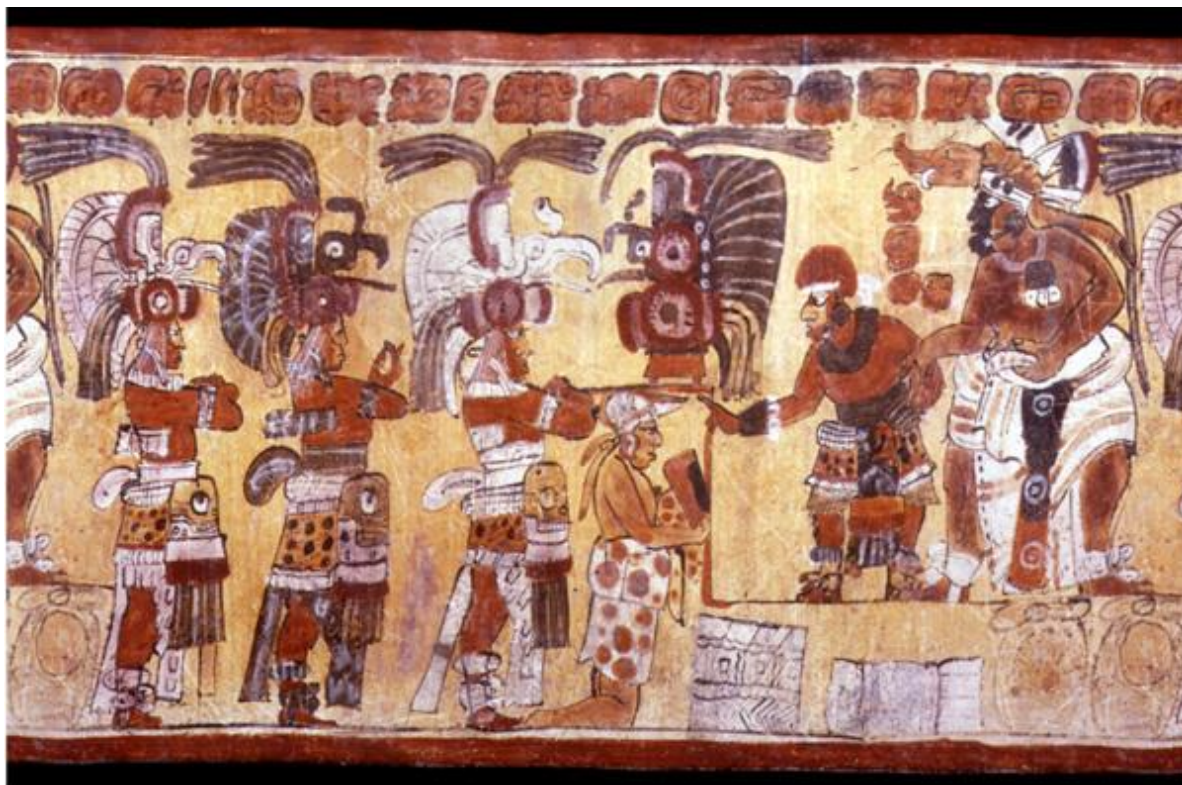
K7265 (Figure 37)

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K7288 (Figure 38) has six male figures. On the left facing right are three elaborately dressed figures labeled as warriors. In front of them is a kneeling figure facing right toward a throne and holding a mirror. The mirror has a black stone, square frame and cloth with spots at the back. There are two figures standing on the throne facing left towards the mirror. One of these figures is smaller than the other and the database labels him as the war chief (Kerr 2019). It seems that the mirror is meant to view the war chief and the ruler addressing the warriors.



K7288 (Figure 38)

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K7797 (Figure 39) is a throne scene with three figures. The principal figure is on the throne looking left at a mirror that is also on the throne. The mirror has a black stone with a square frame and loose fabric wrapped around the base appearing to hold it up. There is a large platter of tributes under the throne. In front of the throne is a figure kneeling with a ceramic vessel and behind him is a standing figure with a tube in his hand. Both are facing the throne. Neither the database nor Blainey (2007) identify the mirror; however, as in K6290 this image has all the characteristics of the conventionalized mirror form. Therefore, I am confident this is a mirror.



K7797 (Figure 39)

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K8220 (Figure 40) is similar to the two-roomed throne scene with two seated figures. However, in the left room there is an additional figure kneeling on one knee in front of the throne holding the mirror. The mirror has a black stone with a thin-lipped ceramic backing.



K8220 (Figure 40)

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K8652 (Figure 41) is like the two-part throne scene but without the divide. There are two figures seated on two thrones facing left towards two standing attendants with their arms crossed facing right. The figure on the left throne is holding a mirror up to his face. The mirror has a black stone with a ceramic back.



K8652 (Figure 41)

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K8790 (Figure 42) is reminiscent of K6341, a palace throne scene with stairs, a dwarf and warriors. The database says there is a battle standard, but I am not sure where. At the top left the principal figure is seated on a throne facing left. There are stairs beneath the throne and a dwarf is on the stairs. Below the dwarf on the ground is a ceramic mirror with a hollow circular stand facing right. There are objects around the mirror, but it is difficult to determine what they are. There is a kneeling figure facing left toward the mirror and behind him are three standing figures with their hands out.



K8790 (Figure 42)

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K8793 (Figure 43) is somewhat crudely drawn in comparison with other vases. The principal figure seated on the throne facing left towards a mirror. He is holding a tube that could be for smoking or writing or it's a wand (Kerr 2019). The mirror is awkwardly rendered and is not firmly positioned on the throne. The mirror stone is black with a lipped ceramic back which is extraordinarily deep compared to other mirrors. There is a circular stand that is also much larger than usual. I suppose it could be a big sack back like in K2695. There are two seated figures in front of the throne facing it with their arms crossed. There is a seated figure behind the throne, also facing the throne.



K8793 (Figure 43)

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K8926 (Figure 44) has three standing figures. In the middle the principal figure is looking left wearing a huge costume that the database says is a jaguar. He is holding a spear and standing in front of a double jaguar throne (Kerr 2019). There is an attendant standing on either side of him. The one behind him is holding a battle standard. The one in front of him is holding a mirror. The mirror is lipped ceramic with front protrusions. The mirror is meant to see the costume as well as the battle standard.

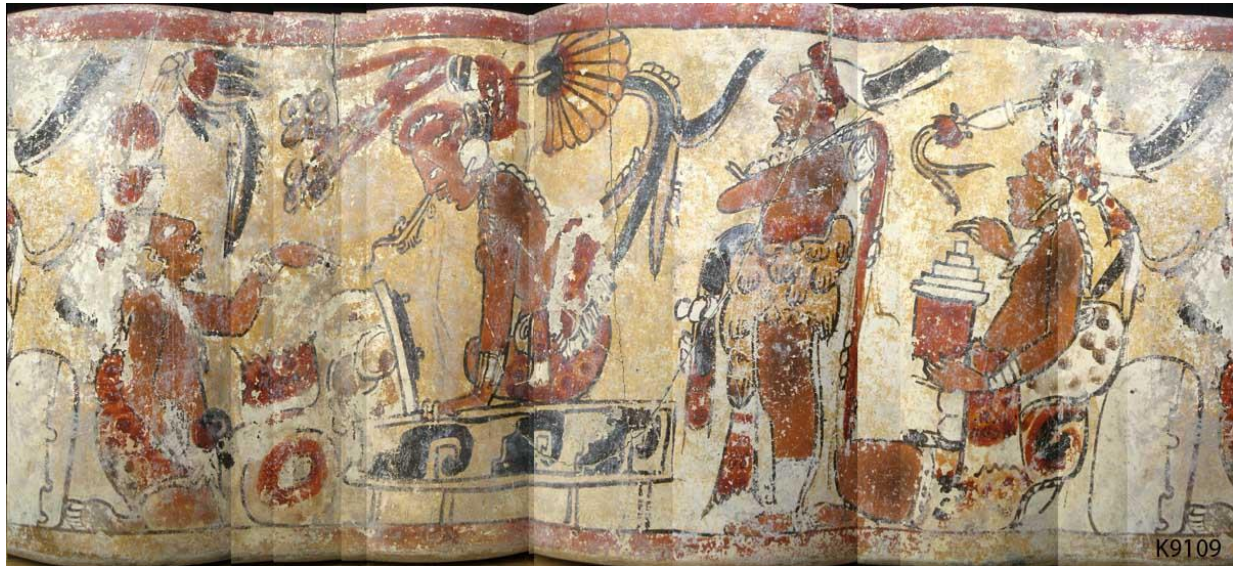


K8926 (Figure 44)

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K9109 (Figure 45) is a palace scene with four male figures. On the right is a large seated figure facing left holding a lidded ceramic vessel. In front of him is a standing figure facing left with arms crossed. Next is a figure seated facing left on a throne with something, possibly breath, coming out of his nose. There is a figure seated on the ground facing right towards the figure on the throne with his hand out towards him. The database says “A ruler sits on throne receiving a bundle, but his mirror is not facing him, and his right hand is in the position of fealty. An attendant and dwarf AJ k'u-HUN who holds what may be a vessel topped with a conch shell (Kerr 2019).” This description is not consistent with what I see in this image. None of the figures are obviously a dwarf and the mirror does appear to be facing the ruler. This will be addressed in Chapter five.



K9109 (Figure 45)

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K9180 (Figure 46) has a sprawled-out monkey on the right facing left towards a mirror being held by a dwarf. The mirror has a black stone, front protrusions and a wide lipped ceramic backing. This image was added to the database in 2009 so it is not included in Blainey (2007).



K9180 (Figure 46)

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K9190 (Figure 47) is difficult to discern. It is a palace scene with seven standing figures. In the center standing on higher ground or a throne are three figures. One is the principal figure that may be holding a battle standard. With him are two attendants, one of whom is clearly holding a battle standard. The other attendant is holding a mirror for the principal figure. The mirror appears to have a lipped frame with a kickstand within a bowl or basket. The principal figure is looking directly at the mirror. The other four figures are standing on the lower ground and holding objects that are difficult to make out, but they are possibly the accoutrements of war. This image was added to the database in 2009 so it is not included in Blainey (2007).



K9190 (Figure 47)

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There are four carved ceramics in the Kerr database that may have mirrors; K5110, K5211, K6071, and K9261. K5110 (Figure 48) is a throne scene like many of the painted scenes. There are two seated figures facing each other and one of them is on a throne. In front of the throne is a small dwarf holding something that is likely a mirror. The details of the mirror are harder to make out in carving, but the placement and the dwarf are very similar to K1453, and some wooden figurines that have been found.



K5110 (Figure 48)

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K5211 (Figure 49) is an incised palace scene. There are two scenes. Each scene has two figures facing each other. The scene on the left may include a mirror held by the right-hand figure of this pair. He is holding an object of a shape that is similar to, but not exactly like, a mirror. He is, however, holding it and looking into it as if it is a mirror. He is wearing a bird headdress and behind him is a throne with a mask on it. The other figure is holding feathers and the interaction between these figures is typical of mirror scenes.



K5211 (Figure 49)

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K6071 (Figure 50) is the two-part scene with two figures on thrones labeled as the maize god. The one on the right might be holding a mirror up to his face in the cache shape with front protrusions. There are markings that make it look like a turtle shell. The maize god is commonly portrayed as being reborn through a turtle carapace, see K1892.



K6071 (Figure 50)

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K9261 (Figure 51) is also a two-part scene, but there are three people in each scene. The figure on a throne in each scene is holding up a mirror that looks very similar to the ones in

K5545. I wonder about the two-part throne scenes because there are versions of these scenes where the objects being held are clearly not mirrors. For example, K748.



K9261 (Figure 51)

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This chapter is the result of a careful identification of painted ceramic images that include mirrors. Because of the standard form that mirrors consistently take in these scenes, I am confident in the identification as mirrors. The characteristics occurring in these fifty-one images and the action portrayed provides a foundation for analysis in the next chapter of the mirror form and activities depicted in the scenes.

CHAPTER FIVE: ANALYSIS

The fifty-one images of mirrors described in the previous chapter contain a number of common and shared characteristics. The physical form of the mirrors as depicted in these scenes is quite consistent. There are some variations in the methods and materials used to stand or prop the mirrors, but overall the mirror form is very similar throughout. This consistency makes these mirrors iconographic. The content of these scenes and the action taking place is complex with overlapping themes. For the purposes of organizing this discussion and analysis, I have devised several loose groupings in this chapter: dwarves – alcohol, smoking and hallucinogens – makeup, body painting and warfare – mirror placement – gods – ritual.

Mirror Form

Mirrors depicted on Maya painted ceramics have a very consistent design and look. This is what allows them to be fairly easily identified, provided the image is not badly degraded. They are consistently portrayed from the side, similar to most figures and objects in painted ceramic images. When they are not being held, they are often at an angle of approximately 30-45 degrees from vertical and the mirror stone is either clearly shown or obstructed and has a frame and backing (Reents-Budet et al. 1994, Blainey 2007)

Within this basic design there are a number of variations. Many have black in the front which likely represents the stone (K530, K559, K625, K764, K767, K787, K1453, K1463, K1728, K1790, K2695, K2914 top, K2929, K3203, K4096, K5418, K5944, K6020, K6290, K6341, K6437, K7288, K7797, K8220, K8652, K8793, K9109, K9180). K4338 has a black part that may be the stone, but it is covered in front by the lipped front of the frame. This may just be

the artist's perspective. K1454 actually has a white stone, which may represent light. Some mirrors (K2711 and K6666) are so white and pale that they appear translucent or ethereal. This could be simply faded color or an intentional attempt to make them appear other worldly.



Mirror Forms (Figure 52)

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Sometimes there are two or more protrusions on the front of the mirror (K505, K530, K787, K2929, K4338, K5764, K5944, K6290, K7265, K8926, K9109, K9180). I wonder if these, and the protrusions seen on the back of some mirrors, are meant to be feet. Then the mirror could be set face down without damaging the stone. If so, there may be a ritualistic reason to hide the mirror from view, for example to conceal activities from the gods or to restrict access to the power of mirrors to rulers or the elite. A source of power was access to gods. As a means of

that access, mirrors would need to be protected. (Blainey 2007, Gallaga 2016a, Healy and Blainey 2011)

Many mirrors are depicted with lipped rims. These are most prominent at the top and bottom edges of the mirror, but I expect that is a result of the artist's use of perspective and the lips actually make up a consistent edge around the entire mirror. The lip can be flat (K505, K2025, K2914 bottom, K3813, K4479 left and right, K5416 left and right, K6437, K6666, K8220, K8652, K8793) or curved backwards (K559, K764, K2026, K2711, K2914 top, K5233, K5545 left and right, K5764, K6187, K7265, K8926, K9180, K9190) or curved forwards (K625, K4338). It is unclear if these served any function. None of the mirrors are being held up by the lips.

Many of the lipped mirrors have a back and they look very similar to cache vessels, meaning they are likely round (K505, K2025, K2026, K2914 top and bottom, K3813, K4338, K4479 left and right, K5233, K5416 left and right, K5545 left and right, K5764, K6437, K6666, K7265, K8220, K8652, K8793, K9180). These mirrors may be intentionally designed to look like cache vessels or, it is possible that some of these may be cache vessels misidentified as mirrors. Cache vessels, especially ones that have been burned or contain offerings, have been argued to be portals or the instruments through which ritual practitioners commune with the other world (Taube 1992). Unlike other mirrors, the mirrors shaped like cache vessels are typically not otherwise decorated. The exception is K2026, which has a zigzag line decoration.

Some mirrors are square shaped with frames (K767, K787, K1453, K1454, K1728, K1790, K2695, K4096, K6020, K6341, K7288, K7797). These frames are mostly brown and

look like ceramic or wood. A few such as K1453, K4096, and K6341 are decorated. K3203 and K5418 are interesting in that they appear to be round with frames that resemble flowers. This would emphasize the mirror as portal since flowers themselves are thought to be portals (Miller and Taube 1997, Taube 1992, 2010b).

K530, K1463, K2929, K5944, K6290, K8790, and K9109 have a flat back with no edges or lips. These seem likely to be round and may be the most similar to those found in the archaeological record. None of the depictions of mirrors match exactly to what is found in the archaeological record. This could be because the mirrors in the archeological record, especially the backings and stands, have deteriorated over time and are not recognizable. The depicted mirrors are also all in profile, which leaves out many details, including whether they are mosaic or solid. Mirrors depicted on these vessels were likely conventionalized like many images in Maya art and iconography and not intended to be a naturalized depiction of specific mirrors. This will be discussed further in the next chapter.

Some have additional backing, which could be wood or baskets, or ceramic made to look like basket or wood. K559 looks like the lipped cache shape set into a basket. K625 is lipped with a square back that looks like it could be wood. K2695 is square with a frame and a pillowlike sack backing. It is being held by an attendant, but the backing may have been intended to prop the mirror up when it was not being held. There are a few that have protrusions on the back (K2025, K2026, K2914 top and bottom, K6666). Of these, only K2914 on the bottom is actually placed horizontally on these protrusions as feet, or it could be placed face down on protrusions as mentioned earlier. Or it is possible that this is actually a plate or cache vessel and not a mirror. Mirrors, plates and cache vessels are so similar in shape that it is difficult to

distinguish a mirror from the other two if a mirror is lying flat, resting on its feet. They could also possibly be mirror bowls. When the artist shows it propped up or held at an angle it is definitely a mirror. This is part of the discussion in reference to K9109. There may be unidentified mirrors on painted ceramic that are lying flat. It is also possible that the similarity of shapes used to indicate mirrors, plates and cache vessels indicates shared meaning in the context of Maya iconography— that they all could function as portals.

Aside from the bottom mirror in K2914, all mirror depictions are either held by a person or propped up in some manner. This positioning distinguishes mirrors from the similarly shaped plates and cache vessels. This also shows the mirrors in use, making them a more direct part of the action of the scene rather than a static object. There are a few types of stands that prop the mirrors up. The majority of stands are round. Some are hollow circles (K625, K2026, K2711, K2914 top, K2929, K3203, K6315, K6437, K7265, K8790, K8793). It is difficult to tell from the painted image what these were made of, and I am unaware of any evidence in the archeological record that indicates what they were. They appear to be ceramic. Others are solid round pieces (K764, K1728, K5233, K5416 right, K5764, K6187). I hypothesize, based on the white color and spiral marking on many of these, that they are actually rolled up fabric. When mirrors with fabric are shown being held, the fabric is loose and trailing as in K505, K530, K4338, K4479 left, K5545 left and right, and K7288. Similarly, K767 and K7797 appear to be held upright by fabric wrapped around the base. The fabric attached to mirrors could serve multiple purposes besides as stands. Fabric may be used to store mirrors safely without causing damage or to hide the mirror from view, similar to using front protrusions to set them face down. Fabric may also

have been used to allow people to wear mirrors. Wearing mirrors is frequently cited as a way in which mirrors were used (Schele and Miller 1983, Taube 1992).

K2025, K4096, K6341, K6666, and K9190 all have a kickstand, probably a piece of wood. K3813 and K5545 left and right are all leaned against a wall. K5418 and K6290 I labeled as rocks because they are a round, irregular shape. There would have been plenty of readily available rocks to use as stands. They appear to be decorated. Sometimes the mirror and the stand are all within a bowl or basket (K764, K1728, K4096, K6315, K6341, K9190).

Dwarves

Of the mirrors that are held by people, a few are being held by dwarves. I believe, however, that some of these may actually be depictions not of living dwarves but of wooden figurines (K1453, K9180). There are two wooden sculptures of dwarves (Schele and Miller 1983, Taube 1992) that may have once held mirrors, but the stones are missing so it can't be known for sure. A third poorly preserved wooden dwarf sculpture was found in a cave, also with no mirror stone (Blainey 2016). It seems likely that these wooden mirror holders would have been actually pretty common, but that wooden objects are highly prone to disintegration, whereas no dwarf remains have ever been identified (Blainey 2016).

There are a fair number of dwarves in mirror imagery. Often, the dwarf is holding the mirror for someone else (K5110). It is believed that dwarves were given elevated status in the ancient Maya world. Blainey (2016) posits that there is a link between substance use and dwarves in these mirror scenes. He notes the lack of dwarfism in human remains that have been found in the archeological record. He then cites accounts of people having visions of little people

after eating hallucinogenic mushrooms – known as Lilliputian hallucinations – as a possible explanation for the iconographic dwarves. He also notes a further connection in that hallucinogenic mushrooms are called little children (Blainey 2016).

Dwarves are recurring figures throughout these scenes (K787, K1453, K1463, K2026, K2914, K6341, K7288, K8790, K9180). K787 has a dwarf kneeling behind the elaborately dressed principle figure. The dwarf may be visible to the mirror. K1463 is degraded but the principle figure is clearly sitting, either the other figures are also sitting or else one or more of them is a standing dwarf. The position of the mirror bearer at least seems like they are standing.

In K2026 the database calls the figure seated on the right a dwarf (Kerr 2019). They do not appear extraordinarily small, but they do appear deformed which may have held similar significance. K7288 the war chief here is not labeled as a dwarf but appears awfully small. K2914 has a dwarf in the lower register. The database says he is overseeing the offerings, but maybe he is included in the offerings. K6341 and K8790 have dwarves on the stairs below the thrones. To the Maya elite, these dwarves, if not hallucinations, may be status symbols like any other accoutrement including mirrors.

Alcohol, Smoking and Hallucinogens

While the gods likely had the power to conjure any person or place, they wanted to see in their mirror, humans may have needed some help. To overcome the blurred vision the gods gave them, humans employed ritual. Recently, Blainey (2007, 2016) theorized about mirror imagery that points to the use of drugs in divinatory ritual. K2026 shows a noble in front of a mirror holding what has commonly been labeled a bouquet near his face. He points out that the

subject's mouth is open, an action that does not indicate he is smelling a bouquet but rather that he may be about to eat the object (Blainey 2016). While there were some flowers in the area that had some medicinal properties, none of these seem likely to have been used for divination purposes as their effects were mild. Blainey discusses the possibility that these bouquets are actually mushrooms, since there were many types of mushrooms in the area that had hallucinogenic effects. Maya drug use is a debated speculation that cannot be confirmed in the archaeological record (Blainey 2016).

In K2914 we can actually see the main subject holding one of these bouquets. Two people sitting behind him may also be holding bouquets. Additionally, there may be a mirror bowl and a dwarf in the lower register, directly below the main subject (Blainey 2016). As mentioned, dwarves may be part of the hallucinogenic visions caused by drugs, and that the presence of dwarves indicates that drugs are already in effect. However, the dwarf is separated from the drug user, possibly in another room.

I am not sure these bouquets are mushrooms after looking at their presence in scenes that do not include mirrors such as K1599. I think it highly likely that the ancient Maya did partake in the use of substances, as it can be confirmed that they participated in other mind-altering ritual acts such as bloodletting and alcoholic enemas. If religious visions are the goal, then imagine what one might see in a funhouse mirror while under the influence (Blainey 2016). Additionally, there are much wilder vision scenes, such as bloodletting scenes, that more convincingly indicate hallucinations than these relatively tame mirror scenes.

The Maya were known to consume alcohol, but it is not prevalent in any of these mirror scenes. In K1453 we can see a dwarf drinking from a bowl, but he is not the one looking in the mirror. However, there are several scenes that involve smoking. This could be tobacco, or it could be something else, drug use is not something that is easily proven. The only obvious scene is K625 where the principle figure and one other figure have cigarettes in their mouths with smoke trails going up. The principle figure is looking at the mirror which is set on the throne in front of him while the other smoking figure is directly behind the mirror sitting on the floor in front of the throne. K6437 has this exact same set up, only in this scene the two figures are holding tubes in their hands which are longer than the cigarettes in K625 and without smoke trails. The Kerr (2019) database does label these as smoking tubes. K8793 also has a figure seated in a throne looking at a mirror and holding a tube.

It was believed that the gods could feed off smoke so maybe the purpose, in addition to smoking, was to make a ritual offering of smoke to the gods they wished to commune with (Carlson 1981). The artist's intention could be that the smoke passes through the mirror portal to the gods. This is possibly the case in K1728 which shows two figures burning torches, one of whom has a cigarette in his mouth which he looks like he is about to light with his torch. Neither of these figures are the principle figure on the throne and they are not looking at the mirror.

Makeup, Body Painting and Warfare

K5416 and K7797 also have figures holding tube shaped objects. These figures are not the principle figure and are not looking into the mirror. These could also be makeup brushes or scribal brushes, and K5416 may be an eating utensil as there is a plate in front of him that the database says is tamale offerings. There are some scenes where the mirror appears to be used in

the application of makeup. However, these ancient Maya mirrors did not have the reflective quality that glass mirrors today have. The best mosaic mirrors still create a somewhat fractured reflection (Healy and Blainey 2011). The black obsidian mirrors give a reflection similar to looking into our dark cell phone screens. While it would be possible to do your makeup in these mirrors, I have to wonder whether, in reality, the elite people portrayed in these scenes wouldn't have an attendant put on their makeup. We do see attendants applying body paint. Perhaps applying one's own makeup is part of the ritual.

In these scenes the mirror is being used first and foremost for its practical reflective properties. Makeup itself seems to be used both as an everyday accoutrement as well as part of ritual and spiritual performance (Gallaga 2016a). Perhaps not used directly for divination and visions in these scenes, they nevertheless are an ingrained aspect of ritual behavior. K5416, K6437, K7797, K8793 also have people holding objects that could be makeup brushes, however they could also be writing brushes or smoking tubes and there is nothing to solidly signify to me which.

The clearest example of makeup application is K4096. A man is holding a brush up to his face while looking in the mirror. He seems to be preparing to sit on the throne and receive visitors. There appears to be no spiritual or otherworldly ritual involved with this scene.

In K530 four deities are preparing for, or in the midst of, a ceremony to or with Itzamnah (Kerr 2019). One of the four is looking in the mirror. He is holding a small pot that could have held makeup and, though he doesn't appear to be holding a makeup brush, he might be using his right hand, which is held up. This may not be true however, as we see a variety of hand gestures

in front of the mirror. K6020 is a vomit ritual scene. A woman, who is not vomiting, is looking in a mirror in a very similar way to the man in K530. She is not holding a pot, but her right hand is up as well and there may be a brush in it. Additionally, in this scene, her face is clearly painted with designs.

In K764 and K6341 an elite figure in each scene is having their body painted by an attendant while looking at a mirror. In K764, the subject is having his backside painted by an attendant while another holds a mirror for him to look at. On his other side, a woman is holding what could be a trophy head or a death mask. If it is a death mask, then this could be a time-illusory scene of a deceased ruler preparing for his 'afterlife'. If this is the case, then the attendant would be applying cinnabar to the body as this was a known funerary practice (Blainey 2007, Miller and Taube 1997). As a possible death scene, the mirror could represent a portal to the afterlife. We know that mirrors were included in burials (Blainey 2007). After interment, they believed that the mirror, like other grave goods, would be used by the deceased. K2695 also has a mask being held towards the principal figure. Though he isn't looking at it, another attendant is holding a mirror for him. Both scenes may imply that the person will put the mask on and look into the mirror.

There are many scenes where people are clearly wearing makeup and body paint, and though the application of it is not part of the scene, the wearing of it is clearly part of the ritual. In K6341 the principal figure may be having his body painted in preparation for war, or perhaps he died in war and is preparing for his funeral.

War seems to have been common in ancient Maya life and politics. It may appear to have been even more common than it actually was because it was an event that was regularly recorded in art and writing (Schele and Miller 1983). Battle standards are present in K767, K5416, K6187, K6341, K8790, K8926, and K9190. K2025 may also have a battle standard but it looks a little different. These scenes also have other accoutrements of war such as shields and spears, as do K787, K2695, and K7288 but these do not include battle standards. K1463 does not appear to have any items of war but is labeled as portraying a “fat cacique wearing war badge (Kerr 2019).”

Divination before war seems like a plausible ritual. It would be natural to pray to the gods for good fortune before going into battle. These prayers would take the form of ritual ceremonies intended to be seen and heard by the gods wherever they are. For example, K8926 shows a ruler wearing a large jaguar costume and an attendant with a battle standard, both standing in front of a mirror. The simplest explanation for this scene is that he is using the mirror to get into the elaborate costume. Extreme costumes such as this are likely ceremonial. This is clearly a jaguar costume; jaguars being commonly associated with warfare due to their predatory nature (Carlson 1981, Miller and Taube 1997). Like other costume and dancing scenes (K5418 and K5233), I believe these costumes are a ritualistic invocation of the gods. They may be meant for the gods to see from the other side of the mirror portal as a plea for good fortune in war, or perhaps an announcement of victory, maybe to a patron god. Either way the mirrors are employed as two-way portals to the gods.

There are several prewar scenes including K787, where a ruler is dressing, and K7288 appears to be a planning scene where a ruler and his war chief are addressing warriors. K2695

might be a war preparation scene, where an elite holding a spear is being handed a mask and shield and shown a mirror. This mask is reminiscent of the death mask in K764 and, therefore, might be a representation of the death of a warrior. Also, like K764, in K6341 the principal figure is having his body painted. This scene could be in preparation for war or for death from battle. Additionally, K6341 has warriors and is labeled as a dance scene, though it does seem odd to be painting someone's body while they are dancing, this could be part of the preparation for war ritual.

Some scenes are the aftermath of war including K767. K2025 is a very unusual scene showing what appears to be a captive or sacrificial victim looking at a mirror. There is what could be a battle standard, but it looks a bit different. It is not on a straight pole and it is not held by a standard bearer. It looks as though a seated figure is holding the mirror up towards the victim and holding a knife to the victim's cheek, though it is also possible it is a standing mirror, since there is a stick shown propping it up. Behind the seated figure is a standing warrior holding a spear to the victim's chest.

K2025 is a somewhat unusual scene. Many aspects of K2025 are characteristic of captive scenes; however, the presence of the mirror goes against all the evidence that mirrors were for the elite. Maybe the victim is elite, and his captors felt obliged to let him divine about his death like K764. Although there are characteristics of captive scenes, this subject's hands are not bound; therefore, he could be a sacrificial victim. He appears to be striking a pose before the mirror but vanity in this moment seems unlikely as his death appears to be imminent. In the context of mirrors as portals, the pose could be part of a transitional ritual he was allowed. Or the gods were meant to see this man's death through the portal because he was a captive of status or

a sacrifice to the gods. This is the largest figure and appears to be the highest status person in the scene. He has an x-ray mask.

Again, because of the poor reflective characteristics of Maya mirrors, I believe that the mirrors in these warfare scenes are being used as divinatory portals in these scenes, and not, as they are often labeled, for dressing (Kerr 2019). I argue that the intention is to show ritual to the gods for good fortune in battle, and to receive instruction from them. This is why battle standards and other important elements are more often than not within view of mirrors.

Mirror Placement

In some scene's Blainey (2007) describes mirrors as having an inactive or passive role. These are the scenes in which mirrors are shown below and to the side of the main subject, often underneath a throne, with no one looking at it. I prefer the term incidental, because I do not believe they are completely inactive. This is the case in K767, K1728, K2711, K7265, K8790. They are off to the side and clearly not directly in use. This reminds me of modern candid photographs with people's possessions in the background which are not in use at that moment. As these are not snap-shot type pictures but art, the purposeful inclusion of mirrors in these scenes is likely to make a statement of power or affluence. Owning a luxury item showed wealth, and as a ritual item it showed one's religious power and divine right to power (Schele and Miller 1983). However, this explanation does not work so well for the inactive mirror in K7265 with Itzamnah. As a god, he wouldn't have needed such statements and Maya artists and viewers would have known him. A better explanation for Itzamnah and all of these incidental mirrors is that they are not inactive mirrors. Rather these mirrors are possibly active portals in use from the

other side and that the artist's intention is that perhaps the scene is being viewed by a god from the spiritual side of the portal.

K7265 has Itzamnah on a throne petting a dog figure, which is seated in front of the throne. The mirror is underneath the throne not being looked at but facing left towards the action. The mirror is placed so the Gods (via the mirror) could see whoever is visiting the throne. The same mirror placement is seen in K1728 and K2711. I believe that the mirror is placed to have a view of the whole party that is occurring, and not so that any one person is looking at it. Although there are figures nearest the mirrors who could be using them, these are not the principle figures, and I do not believe they are using the mirrors.

This is similarly true in K8790. The mirror is below the throne and down a few steps and has a view of the whole room and many people could be looking at it, especially the figure kneeling in front of it. The idea is that the mirror intentionally has a view of the whole room and its activities. In K767 the mirror does not have a view of all the happenings in the room. It is still below the throne but is aimed more towards the throne than the previous scenes. The figure on the throne is not looking towards it. Considering mirrors as two-way portals it could indicate that he is being viewed from the other side of the portal.

The exception is the mirror in the lower register of K2914, which I believe to be truly inactive. It seems clear that this mirror is meant to be given as tribute or dowry along with the other items in the lower register (Kerr 2019). We know from the archaeological record that mirrors were sometimes given as gifts (Blainey 2007, 2016, Gallaga 2016a, 2016b). It is also possible that this mirror is set face down, as I mentioned earlier.

There are scenes where the mirror is more central in the scene than those shown under the throne, as if they have just been used or are about to be used (K3203, K5233, K5416, K6187, K6315, K6187). In K3203 it is set on a throne just as it is in other scenes, but in this scene, there is no one sitting on the throne to look at it. There is a figure kneeling in front of the throne looking at the back of the mirror. There is also an attendant standing next to the throne who could possibly see the mirror but is probably not the person using it. In this scene the mirror does not have a view of anything but the empty throne and may truly be unused. The mirror in K6187 is also on an unoccupied throne. But this time the principal figure is in front of the throne, his head is turned away, but the mirror may be meant to see him. He is holding what looks like a rolled-up battle standard, supporting the idea that the mirror is watching him.

The right-side mirror in K5416 has two attendants that may be looking at it. However, the principal figure is looking at another mirror on the left. One of the two figures that the mirror might see is holding a battle standard. The other figure is seated on the throne with the mirror, but the mirror is not directly in front of him as it is in the other scenes where it is clear that the person is using it. Again, I think the placement of the battle standard in view of the mirror is the point here. There is also a kneeling figure at the end of the throne that could be in view.

The mirror in K6315 is set in front of a throne. A figure is seated on the throne. He is looking at the person standing behind the mirror, but the mirror might be watching him, since he is the ruler. K5233 is a dancing scene where the mirror is aimed at the dancer. The dancer has his head turned away from the mirror, but it is clear that the mirror was meant to see him and his moves. Dancing is still used as a ritual act to this day (Taube 2010b).

There are some scenes where the mirrors are held by attendants and aimed at a figure as if they are in use, but the intended figure is not looking at the mirror (K1454, K1463, K2695, K4479). In K1454 an attendant is holding a mirror towards the principal figure who, though his head is turned towards the mirror, his eyes are closed. Also, the attendant holding the mirror is pointedly turning his head away from the mirror. The mirror bearer is also looking away in K6341. They are looking away from the mirror despite the fact that they are behind it and couldn't see it regardless. Or maybe they are looking away for another reason, for example perhaps as attendants they would not be permitted to look into a mirror.

In K1463 the principal figure is looking away from the mirror as if he is talking to the other people in the scene. The mirror is being held by a mirror bearer, who may be a dwarf. The principal figure may have just turned his head away from the mirror or, like earlier scenes mentioned, the mirror may have been meant to view the whole room and the conversation that is occurring. The same is true in K2695 and K4479, though the mirror bearers are not dwarves.

I think these mirrors are in the room to allow access to the goings on of the palace to the gods or others at any time. This ties in nicely with the idea that sometimes mirrors are hidden from view by placing them facedown or wrapping them in fabric. Therefore, it is not just people looking at mirrors, but mirrors looking at people.

In K9109 accurate understanding of the placement of the mirror alters the interpretation of the scene. It is labeled as a mirror in the Kerr database, and is described as facing away from the figure on the throne. If this is the case, then the front is white, and the back is black which is unlike any of the other mirrors. Also, then, there is something coming out of the front that has

round pieces. In this case it looks more like a plate spilling, perhaps water. There is smoke coming from the nose, so this may be another death scene. In this case, the mirror could be reversed to show that the deceased is in the afterlife, or ‘behind the veil.’

If it is in fact not backwards, then the angle at which it is placed makes more sense, facing the figure on the throne. Then it has a typical black stone with front protrusions and a white, flat lipped back in the cache shape. The round pieces would be coming from the back and it is still unclear what they are, but they could be like the sack backing in K2695. Or they may be something passing through the portal like the speech scrolls in K2929. There is something on the ground in front of the throne that looks a lot like the round stands, see K2914.

Gods

The majority of images in this study show humans engaged with mirrors on the worldly side of mirror portals, but there are several that have gods and otherworldly creatures in them. These then would be scenes from the other side of the portal – the spiritual world side.

Humans would need to be more directly engaged with mirror portals than the gods because gods did not necessarily need tools to communicate as much as humans did. Humans may have needed some help to overcome the blurred vision the gods gave them. Humans employed ritual for this purpose (Taube 1992). In Bassie’s (2002) examination of mythology, God D, or Itzamnah, and Goddess O, or Ix Chel, are the Classic Period, and likely earlier, parallels of the creator grandparents from the *Popol Vuh*. Responsible for the creation of the earth and humanity, they were also said to be the first diviners, so, it makes sense to see them using mirrors.

In K5764 Itzamnah is seated on a throne with a mirror in front of him. Ta Hol is in front of the throne, behind the mirror, presenting him with cloth (Kerr 2019). In K7265 Itzamnah is seated on a throne and petting a dog. This scene has an incidental mirror, which is aimed towards Itzamnah. This is interesting because it could mean that not only do gods watch humans, but that the humans may be allowed to watch the gods.

Goddess O is seen in K559 where she is giving birth to a rabbit in front of the mirror. It appears that the rabbit's foot is passing through the mirror. She is the moon goddess and the rabbit is known to symbolize the moon. Interpreting the mirror as a portal completes the scene as a representation of the rebirth of the moon every night, which rises through a portal to traverse the earthly sky (Blainey 2016). Additionally, the world tree is present, representing a connection between worlds (Taube 2010a, 2010b). It appears almost as if it is coming out of the mirror.

K3813 and K5545, both have two separated scenes within boxes, a seated person in each box. This type of scene is commonly associated with the hero twins Hunahpú and Xbalanqué - one or both of them is looking in a mirror. Both scenes have something round underneath one of the figures, maybe a bundle. These two scenes are undeniably similar to K624 and K748, which are also labeled as Hunahpú and Xbalanqué, but these do not include apparent mirrors. The hero twins aren't exactly gods but were worshiped by the Maya like gods. Possibly in these scenes they were spying on their enemies in the underworld. This then would be communication through mirror portals between mythical beings, illustrating that portals did not just link gods and humans. K4479 is labeled as Hun Ahpu, the father of the hero twins, and Hun Ahaj.

God N is seen in K6290 in front of a mirror. God N is said to have held up the sky, which is itself multiple worlds. According to the database this may be a scene from the *Popol Vuh*. Here God N is meeting with a human while in the background a large serpent creature is positioned so that it looks like it is going through the mirror. Serpents are associated with portals in many ways. This serpent may be Och Chan, the bearded dragon or serpent of the underworld (Kerr 2019). This mirror may represent passage to the afterlife, possibly for the human figure in this scene, though the mirror is not facing him.

K5944 is very similar in style to K6290 with the human figure on the right and a mirror with Och Chan behind it. However, K5944 has a water bird on the right instead of God N and the mirror is facing the human. K2929 is also a similar scene, it has a man on the right and an animal on the left, maybe a jaguar or bear. This animal does appear to have something behind him that looks a lot like the tail of the serpent seen in K6290 and K5944. The mirror is facing the animal and there is something coming from his mouth over the mirror. Healy and Blainey (2011) describe K2929 as two worlds separated by a mirror portal. On the right is a noble person and on the left is a zoomorphic jaguar. There are speech scrolls coming from the zoomorph towards the mirror indicating that the two subjects are communicating through the portal (Blainey 2007, Healy and Blainey 2011). The ability of the Maya elite to communicate with the supernatural world is a source of their power. This will be further discussed in the next chapter.

There are two images with anthropomorphic monkeys wearing scribal headdresses. In K9180, a prone anthropomorphic monkey scribe is looking towards a mirror held by a dwarf. In K505, an anthropomorphic monkey dances while holding a mirror to view himself. There is also

an anthropomorphic dog wearing a scribal headdress with his nose and hand inside an *olla* facing him. *Ollas* are also sometimes shown as portals, for example K2284.

The majority of figures in these scenes are men, but there are occasionally women present including K764, K2695, K2914, K5416, and K5418. There are only three images where women are actually holding the mirror, K530, K4479, and K6020. And there is only one image of a woman using a mirror, K559, and she is a goddess, not a human. The implications of this could be an interesting avenue for further study. Goddess O is an original diviner, so it is not surprising that she is the one woman found using a mirror. She is also often seen with a reflective bowl of water used for divination (Bassie 2002). According to Healy and Blainey, she does not wear a forehead mirror, and in fact females are not shown with forehead mirrors (Healy and Blainey 2011).

Ritual

It is clear that mirrors and ritual are intertwined. We have already seen many aspects of rituals performed in front of the mirrors. Everyone in these scenes is wearing some type of clothing and there are a variety of headdresses, but there are a few remarkable costumes such as the wings worn in K1454 and the jaguar costume in K8926. K5233 and K5418 have fancy dress and both of these subjects are dancing in front of the mirror. That dancing is in front of a mirror indicates to me that the dance is not just for fun but intended for the gods to see through the mirror portal. Divination dancing is a way to appeal to the gods, to assure the blessing and support of the gods.

Ritual and power are also intertwined. Everything that these human figures are doing in front of the mirror is to show power. That is the intention for the creation of these images. K787 shows an elaborately dressed ruler holding a double-headed serpent bar looking into a mirror held by an attendant.

There are a variety of hand placements and gestures that we see these figures in (K1453, K2914, K4338, K1463, K1728, K4479, K5545). This could be an interesting future analysis since there are a number of identifiable hand gestures including listening and fealty.

Conclusion

This chapter's analysis of the painted scenes explored the key properties that lead to the final conclusions of the next chapter. Significant findings include the standardized form that the depiction of painted mirrors take. A form that is not consistent with the form of the physical mirrors in the archeological record. The painted mirrors follow a standard stylized form that implies that the image is charged with an iconographic significance. The majority of these images depict ritualistic behavior. The connections between mirrors' prominence in these scenes, the apparent iconography inherent in the mirror form, and the association between mirrors and ritual are further explored in chapter six.

CHAPTER SIX: DISCUSSION AND CONCLUSION

A large number of painted ceramic vessels of the ancient Maya that remain today portray palace scenes and gods (Reents-Budet et. al 1994). These were, after all, supremely important aspects of Maya life and in particular of the lives of Maya elite. The elite were perhaps the celebrities of their day and their milieu would be the subject of such art. The fact that a group of these scenes includes mirrors demonstrates that mirrors held an important place within Maya political and religious life. Although the mirrors are just one element of a number of figures and objects included in these scenes, I contend that the mirrors are often central to the action of the scene. Sometimes the principal figures in the scenes are directly and actively engaged with the mirrors, but even when they appear to be simply incidental accessories, I propose they still have an important function. This study has addressed the questions of what are the underlying beliefs that support mirrors' function and position, how were they used by the Maya, what they actually meant to the Maya people and why mirrors hold this position of importance.

Just as images of mirrors appear on a notable but not extensive number of painted ceramics, in chapter two I showed evidence that a notable but not extensive number of mirrors are found in the archeological record. The association of mirrors with the elite is consistent between both the archeological record and the artistic record. The obvious time and level of craftsmanship required to manufacture mirrors certainly supports their possession as symbols of status and wealth (Taube 1992). However, there is little in the physical record that provides evidence for how they were actually used. This study has shown how analysis of the painted scenes provides insight into how they were used.

The materials that were used in the manufacture of mirrors did not provide the kind of clear reflection that would make them ideal for vanity uses in the way that mirrors of today are. That point is further reinforced by the typical Maya mirror construction in which the mirror is concave, convex or mosaic. Any of these surfaces results in distorted reflections. Distortion creates the opportunity for broader interpretation of what the distorted reflections are or mean.

There are some basic variations in physical mirrors that have been found, single stone versus mosaic; they typically have some form of carved stone backing and are often round. There are several different backings portrayed in the painted images and they are typically propped on some form of wooden or basket stand or on rolled fabric if they are not held by hand. The painted images do not line up exactly with what we know from the archeological record. This likely has to do with degradation. Fabric backing and frames and stands of wood and basketry that are commonly portrayed in the artistic imagery are highly susceptible to degradation and may not survive in the archeological record. Ceramics may not survive in a recognizable form. Some of the thinner hand-held mirrors such as K505 and K530 may represent the thin carved stone backings that are common in the archeological record. Maybe the carved stone backs are what is kept in the basket frames and the viewer would have known that. Mirrors depicted in paintings on ceramics have a fairly consistent stylized appearance. Visible stones are typically black but occasionally white. The pyrite and obsidian mirrors typically found in the archeological record are not white but perhaps these white images are light reflection. The painted mirrors are always portrayed in profile, so it is impossible to determine if they are single stone or mosaic, concave or convex or if they are round, square or rectangular.

The consistent stylized portrayal of painted mirrors suggests that rather than attempting to realistically portray an actual mirror, the artist was depicting a recognizable image of what was ordinarily understood to represent a mirror thus invoking an iconographic image of a mirror in order to aid the viewer to quickly understand the action in the scene. This would imply that there was a general understanding of exactly how mirrors would be functioning in these kinds of scenes. By always depicting mirrors in profile, the artist would never have to contend with visually representing a reflection or attempting to indicate what was happening within the image in the mirror, which would be the purview of diviners and royalty. Nor do the mirrors painted in this fashion indicate any characteristic of shininess or reflectivity and therefore do not directly comply with Blainey's reflective surface concept. On these painted images, the reflective surface concept could only manifest in the mind of the viewer through the knowledge that the item portrayed is in fact a reflective surface mirror.

The mirrors depicted on painted ceramics are consistently of a fairly large size. It has been proposed that this would indicate that these are mosaic mirrors, since mosaic mirrors could be made larger than single stone mirrors (Kovacevich 2016, Taube 1992). This may be so, but I would propose that it is also possible that the artist may not have been very concerned with realistically proportioned objects. The fairly consistent relative size of the painted mirrors supports the idea that the artists may have been following an iconographic convention for portraying mirrors rather than intending to accurately depict a specific mirror. In this regard, the large size of mirrors could then possibly be understood as an indication of their importance to the scene rather than an actual size.

A conclusion from the analysis of chapter five is that virtually all of the painted mirror scenes appear to involve some form of ritualistic behavior. Ritual behaviors like those portrayed on the ceramics have been documented by many Mayanists as having been practiced by the ancient Maya (Taube 2004). These include smoking, dancing, applying makeup and preparing for war. Within the majority of these scenes the mirrors appear to have a function in relation to the ritual being performed. This clearly suggests a significant spiritual role for mirrors in Maya religious life and the evidence collected and observed in this study is very much in line with the idea of mirrors as portals between the earthly and spiritual worlds. This provides an explanation for why the mirrors are featured. They link the performer of the ritual with the intended audience: the gods in the spiritual world. The performers are interacting with the gods through the agency of a mirror. The gods are typically not portrayed in these mirror scenes. The scenes are predominately of the earthly performers of rituals. The presence of the mirror as intermediary between the humans and the gods would have given a significance far beyond that of just a dance or of just smoking. This significance would have to have been immediately understood by the Maya viewing these scenes.

There are some scenes in which mirrors appear to be unused and outside the action of the scene. Blainey (2007) identifies the mirrors in these scenes as “passive.” Alternatively, I contend that as portals these incidental mirrors may still be active as windows between worlds through which the gods may view the earthly world and humans could pass offerings and praise to the gods. This again would give weight and significance to the scene that would be missing without the mirror’s presence.

The idea of a mirror as a portal between the earthly and spiritual worlds provides a convincing argument for why mirrors are featured in painted ceramic scenes in the way that they are. It also enhances the explanation of what exactly is happening in the scenes. However, there is nothing in those scenes that would definitively indicate that that's how the mirrors are being used. In other words, a viewer of the paintings who did not have a background in the Maya culture, even if they did realize that those objects were mirrors, would likely not recognize their function as portals. Other than the few instances in the painted scenes where something appears to be coming out of or passing through the mirror, there is nothing to indicate that the mirrors are anything other than normal solid objects. The idea that mirrors functioned as portals in the Maya culture comports with the mythology and what is known directly about how the Maya used mirrors as evidenced from these ceramics.

Chapter three focused on those aspects of the Maya mythology that form the basis for the function and importance of portals. The Maya worldview is constructed upon a hierarchy of earthly and spiritual worlds. The connections between those worlds are portals. The Maya creation myths describe the god's creation of humans as a way of fulfilling the gods need for praise and nourishment. Portals provide a doorway through which praise can pass from human to the gods. Ritual is the way that transfer is made – the kind of ritual depicted in the paintings on ceramic.

That caves were considered to be portals to the underworld has an obvious logic to it – if the underworld is beneath the earthly world then a passageway underground would lead to the underworld. Why mirrors would be considered portals is less obvious. “While it strikes the modern scientific mind as ridiculous, the evidence demands that we consider how ancient Maya

ontology differed from our modern beliefs about the nature of reality (Blainey 2016: 198).” To us, the idea that a reflection is not simply a reflection and instead could be a passage to another world is a fantasy. To the ancient Maya a mirror reflection would not be commonplace as it is to us. And yet, even to us looking into a mirror and seeing ourselves and our world reflected back from a flat surface, yet with a sense of spatial depth can be intriguing and a little strange. In that context it is not difficult to imagine the Maya seeing a reflection and thinking they were seeing into a different world, and even seeing a way into that other world. To me, this idea is the essence of Blainey’s (2007) reflective surface complex. It provides an explanation for why reflective surfaces carried such importance to the Maya. Even though, to my knowledge, there is no mention of physical mirrors in the mythology.

For the ancient Maya elite, control over the ability to communicate with gods and spiritual beings would have supported their power and right to rule. This would endow mirrors with considerable power and further explain why they are included in these painted palace scenes. In this sense the painted scenes could be seen as a form of propaganda, forwarding the idea that they had access to the gods and advertising that source of their power. To consolidate and control the power that came from communicating with the gods required keeping that ability out of reach of regular people, which could be done through the restriction of knowledge and tools, in this case mirrors.

The fact that these painted scenes with mirrors are of palaces and high-status figures does not necessarily indicate that only the elite had mirrors. There is no similar body of work portraying the lower classes that would provide that comparison. However, the archeological records seem to indicate that mirrors were elite objects. Additionally, in the ceramic paintings it

is most often the highest status figure using the mirror while attendants and lower status figures are sometimes looking away, which may mean they were not allowed to look into the mirror.

The purpose of this study was to examine the function of the mirrors portrayed in ancient Maya painted ceramics as completely as possible. By doing so I hoped to shed some additional light on the function of mirrors in the Maya culture and in particular the idea that the Maya considered mirrors to be portals between the earthly and supernatural worlds. It is impossible to truly know the way ancient people thought. Our experiences and knowledge of history, science and human psychology provide a background to all our thoughts and understanding that poses an enormous challenge to comprehending the thought processes and outlook of people of an ancient culture with no grounding in Western style science or experience. The action portrayed in the painted ceramic scenes are mysterious and enigmatic, as is most of Maya culture, and cannot be understood by simply studying the images. This thesis employed a holistic study of the myths that defined the Maya cosmology and rituals, physical mirrors in the archeological record, the words and language associated with mirrors and careful consideration of the painted scenes themselves.

Blainey's (2007) work confirmed that the scenes and these ceramic vessels were portrayals of mirrors and identified the artistic conventions of mirror portrayal. Several scholars established that mirrors were luxury goods, statements of power and above all spiritual portals (Schele and Miller 1983; Taube 1992, 2010b, 2016; Gallaga 2016a, 2016b; Blainey 2007, 2016; Healy and Blainey 2011; Kovacevich 2016; Lunazzi 2016; Matsumoto 2013). This thesis aimed to combine those two ideas and examine the painted images in depth, illuminating how these are not simply depictions of mirrors but depictions of mirrors functioning as active portals. After

studying these many images of mirrors and reflecting on the cultural context in which they were created I have concluded that across the board the inclusion of mirrors in these scenes only makes sense when the mirrors are understood to be portals between worlds. Further, I believe that the mirrors were understood as two-way portals through which gods viewed and responded to humans and humans provided praise and offerings to the gods. This would have been so well understood by the Maya viewing these scenes that the artists consistently used a somewhat abstract representation of a mirror as a conventional image in all of these paintings. The ceramic vessels would memorialize and disseminate the ruler's or elite's power that access to the gods through mirror portals provided.

REFERENCES

Bassie, Karen

2002 Maya Creator Gods. Mesoweb.

Blainey, Marc G.

2007 Surfaces and Beyond: The Political, Ideological, and Economic Significance of Ancient Maya Iron-ore mirrors, Anthropology, Trent.

2016 Techniques of Luminosity: Iron-Ore Mirrors and Entheogenic Shamanism among the Ancient Maya. In *Manufactured Light: Mirrors in the Mesoamerican Realm*. E. Gallaga, ed. Pp. 179-206. Boulder, CO: University Press of Colorado.

Carlson, John B.

1981 Olmec Concave Iron-Ore Mirrors: The Aesthetics of a Lithic Technology and the Lord of the Mirror, in *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*

1993 The Jade Mirror: An Olmec Concave Jadeite Pendant. *Precolumbian Jade: New Geological and Cultural Interpretations* 242-250.

Christenson, Allen J.

2007 *Popol Vuh* : The Sacred Book of the Maya. The Great Classic of Central American Spirituality, Translated from the Original Maya Text. University of Oklahoma Press. Norman.

Dennett, Carrie L. and Marc G. Blainey

2016 Reflecting on Exchange: Ancient Maya Mirrors beyond the Southeast Periphery. In *Manufactured Light: Mirrors in the Mesoamerican Realm* edited by Emiliano Gallaga M. and Marc G. Blainey, pp. 229-253. Boulder, CO: University Press of Colorado.

Freidel, David A. and Linda Schele

1988 Kingship in the Late Preclassic Maya Lowlands: The Instruments and Places of Ritual Power. *American Anthropologist* 90(3):547-567.

Gallaga, Emiliano M.

2016a Introduction. In *Manufactured Light: Mirrors in the Mesoamerican Realm* edited by Emiliano Gallaga M. and Marc G. Blainey, pp. 3-24. Boulder, CO: University Press of Colorado.

2016b How to Make a Pyrite Mirror: An Experimental Archaeology Project. In *Manufactured Light: Mirrors in the Mesoamerican Realm* edited by Emiliano Gallaga M. and Marc G. Blainey, pp. 25-50. Boulder, CO: University Press of Colorado.

Healy, Paul F. and Marc G. Blainey

2011 Ancient Maya Mosaic Mirrors: Function, Symbolism, and Meaning. *Ancient Mesoamerica* 22:229–244

Kerr, Justin

2019 Maya Vase Database. <http://research.mayavase.com/kerrmaya.html>: FAMSI.

Knowlton, Timothy W.

2010 *Maya Creation Myth: Words and Worlds of the Chilam Balam*. University Press of Colorado, Boulder.

Kovacevich, Brigitte

- 2016 Domestic Production of Pyrite Mirrors at Cancuén, Guatemala. In *Manufactured Light: Mirrors in the Mesoamerican Realm* edited by Emiliano Gallaga and Marc G. Blainey, pp. 73-105. Boulder, CO: University Press of Colorado.

Lunazzi, José J.

- 2016 On How Mirrors Would Have Been Employed in the Ancient Americas. In *Manufactured Light: Mirrors in the Mesoamerican Realm* edited by Emiliano Gallaga and Marc G. Blainey, pp. 125-141 Boulder, CO: University Press of Colorado.

- 1996 Olmec mirrors: an example of archaeological American mirrors. In *Trends in Optics* (pp. 411-421).

MacLeod, Barbara and Puleston, Dennis

- 1978 Pathways into darkness: the search for the road to Xibalba. *Tercera mesa redonda de Palenque*, 4, pp.71-77.

Matsumoto, Mallory

- 2013 Reflection as transformation: mirror-image structure on Maya monumental texts as a visual metaphor for ritual participation. *Estudios de cultura maya*, 41(41), 93-128.

McGraw, John J.

- 2016 *Stones of Light: The Use of Crystals in Maya Divination*. In *Manufactured Light: Mirrors in the Mesoamerican Realm* edited by Emiliano Gallaga and Marc G. Blainey, pp. 207 - 228. Boulder, CO: University Press of Colorado.

Miller, Mary Ellen, and Karl Taube

1997 An illustrated dictionary of the gods and symbols of ancient Mexico and the Maya.
Londres: Thames and Hudson.

Morehart, Christopher T., David L. Lentz, and Keith M. Prufer.

2005 Wood of the Gods: The Ritual Use of Pine (*Pinus* spp.) by the Ancient Lowland
Maya. *Latin American Antiquity* 16, no. 3: 255-274.

Nelson, Zachary, Barry Scheetz, Guillermo Mata Amado, and Antonio Prado.

2009 Composite mirrors of the ancient Maya: Ostentatious production and Precolumbian
fraud. *The PARI Journal*. A quarterly publication of the Pre-Columbian Art Research
Institute 9(4), 1-16.

Reents-Budet, Dorie, Joseph W. Ball, Ronald L. Bishop, Virginia M. Fields, and Barbara
MacLeod.

1994 *Painting the Maya universe: royal ceramics of the Classic period*. Durham, NC:
Duke University Press, 1994.

Saunders, Nicholas J.

2001 A Dark Light: Reflections on Obsidian in Mesoamerica. *World Archaeology*
33(2):220–236.

Schele, Linda and Jeffery H. Miller

1983 The Mirror, The Rabbit, and The Bundle: "Accession" Expressions from the Classic
Maya Inscriptions. *Studies in Pre-Columbian Art and Archaeology* 25:1-99.

Stone, Andrea and Marc Zender

2011 *Reading Maya Art. A Hieroglyphic Guide to Ancient Maya*.

Stuart, David

2010 Shining Stones: Observations on the Ritual Meaning of Early Maya Stelae. In *The place of stone monuments: context, use, and meaning in Mesoamerica's Preclassic transition*, edited by Julia Guernsey, John E. Clark, and Barbara Arroyo. p. 283-298.

Taube, Karl A.

1986 The Teotihuacan Cave of Origin: The Iconography and Architecture of Emergence Mythology in Mesoamerica and the American Southwest. *RES: Anthropology and Aesthetics*, No. 12, pp. 51-82.

1992 The Iconography of Mirrors at Teotihuacan. In *Art, Ideology, and the City of Teotihuacan: A Symposium at Dumbarton Oaks, 8th and 9th October 1988*. Dumbarton Oaks 1992.

2004 Flower Mountain: Concepts of Life, Beauty, and Paradise among the Classic Maya. *RES: Anthropology and Aesthetics*, no. 45, pp. 69-98.

2010a Where Earth and Sky Meet: The Sea in Ancient and Contemporary Maya Cosmology. In *the Fiery Pool: The Maya and the Mythic Sea*, Daniel Finamore and Stephen Houston, eds., 202-219. Yale University Press, New Haven.

2010b Gateways to Another World: The Symbolism of Supernatural Passageways in the Art and Ritual of Mesoamerica and the American Southwest. In *Painting the Cosmos: Metaphor and Worldview in Images from the Southwest Pueblos and Mexico*. Flagstaff: Museum of Northern Arizona, pp.73-120.

2016 Through a Glass Brightly: Recent Investigations Concerning Mirrors and Scrying in Ancient and Contemporary Mesoamerica. In *Manufactured Light: Mirrors in the*

Mesoamerican Realm edited by Emiliano Gallaga and Marc G. Blainey, pp. 73-105.

Boulder, CO: University Press of Colorado.