

A CLASSIFICATION OF DAY SIGNS IN THE MIXTEC CODICES:
INTERPRETATIONS OF FLINT MOTIFS

by

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CHAPTER 1

INTRODUCTION

One of the few truly universal human behaviors is our ability to convey information in a variety of ways. Like most other animals, and especially our fellow primates, the most biologically fundamental methods of communication are at the heart of cultural learning. Thus from youth we learn organized systems of vocal language, bodily gestures, and, in some cases, complex systems of writing.

Research Background

Pictographic Writing Systems

The use of images as a means of communication is, assuredly, one of the earliest systematic forms of writing. Pictographic writing has been found to exist throughout the ancient world. The examples in Figure 1.1, Russian petroglyphs on Kanozero Island and the Egyptian Narmer Palette, are contemporaneous, showing two distinct pictographic systems of the ancient past.

Despite being one of the earliest forms of writing, pictographs remain prevalent today. The persistent use of picture-based communication is partially due to its resilience against language barriers. In this way, the pair

of boxes in Figure 1.2 gives instructions for operating a hot air hand dryer: press the button to dry hands.

According to contemporary internet communities, however, these instructions offer bacon. The humorous intent of this second explanation reveals the legitimate concern that pictographic writing can be ambiguous.

The pictographic writing systems of Mesoamerica have been the subject of long term study; the earliest efforts at this examination were conducted by those first Europeans to enter the region in the 16th Century. One of the most notable of these early researchers was Bishop Diego de Landa, a cleric, who utilized Maya scribes to create a guide for matching Maya glyphs to European sounds (Schele and Miller 1986). Additionally, the several colonial documents written by Aztec scribes have served to offer a special insight into indigenous doctrines and ritual. These manuscripts are the focus of generations of scholarly attention (Brinton 1893; León-Portilla 1969; Chadwick 1971; Pohl 1994a; Boone 2000; Smith 2003). Despite this long term interest in native writing, the pictographic system of the Mixtec has received, by comparison, little attention.

Mixtec Scholarship

In the early 20th Century, Zelia Nuttall discovered a screenfold manuscript, currently identified as *Codex*

Zouche-Nuttall, in a private collection of the British Lord Zouche of Haryngworth. Her subsequent efforts to preserve the manuscript, which she mistakenly theorized was Aztec in origin, remain her greatest contributions to the study of Mixtec written materials. Over the next few decades, a variety of manuscripts from the Mixteca region came to scholarly attention. The first truly academic breakthrough in the study of Mixtec documents occurred in the late 1940s.

In his 1949 study of the *Mapa de Teozacoalco* the Mexican scholar Alfonso Caso succeeded in linking genealogical information on the map with identical royal lineages outlined in the Mixtec screenfold documents (Williams, Personal communication, 2010). This discovery identified the map as Mixtec in origin. The scholarly study of the Mixtec writing system, then, began less than seventy years ago.

The next primary contributions in the field of Mixtec studies are those of Caso's student Dr. Mary Smith (1971, 1983). Smith's research delves into understanding the linguistic foundations of Mixtec pictographic writing. The more recent studies of Mark King (1990, 1994) build upon Smith's work by adding contemporary ethnographic connections to the pre-existing linguistic research.

Alfonso Caso followed his Mixtec identification of the codices by also expanding our knowledge of the Mixtec by studying their calendar system. Later he expanded his work by fundamental interpretations, of *Codex Bodley* (1960) and *Codex Selden* (1964). Other complete interpretations of Mixtec screenfolds are those of *Codex Vindobonensis Mexicanus I* (Furst 1978), *Codex Colombino-Becker* and *Codex Bodley* (Troike 1982, 1996), and mostly recently *Codex Zouche-Nuttall* (Williams 2013).

Many other scholars have directed varying degrees of study to facets of the Mixtec codices, as well. The most prominent of these studies are by Dr. John M.D. Pohl, who has published widely on a variety of topics, such as regional politics (1994a, 2003a) and ritualism (1994b, 2000, 2003b). His archaeological endeavors with Bruce Byland (1990, 1994, 1996) have also contributed to the understanding of Mixtec political and sacred geography.

Several other scholars have contributed to the field of Mixtec studies by focusing on the archaeology of the Mixtec (Joyce et al 2009; Kowalewski et al 2009; Pérez Rodríguez 2012; Spores 2008) and neighboring indigenous groups (Paddock 1970, 1983; Flannery and Marcus 1983; Licón González 2001; Hernández Sánchez 2012). Additionally, on-going scholarly research projects offer useful insight into

understanding the cultural value of pictographic writing among the Mixtec and other indigenous peoples of Mesoamerica (King 1990; León-Portilla 1969; Monaghan 1994; Smith 2003; Urcid 2005, 2012).

Mixtec Writing

Multimedia

The Mixtec employed their writing system in a variety of media and structural organizations, as well as in varying degrees of detail. Small, portable artifacts tend to contain limited information. For example, Figure 1.3 shows artifacts excavated from Monte Albán Tomb 7 that are primarily concerned with calendar data. The lower portions of the gold pectoral align Zapotec and Mixtec calendrics (Caso 1965b), and the carved bone depicts a series of solar years. The Nochixtlán tripod ceramic in Figure 1.3, however, omits calendar information of any kind, focusing instead on depicting a ritual meeting between two Mixtec elite individuals. This artifact, known as the Nochixtlán Vase, arranges content in a horizontal band around the bowl's circumference.

Lienzos, cotton sheets painted with Mixtec writing, provide an intermediate amount of detail. These documents depict both calendric and descriptive content, and arrange information in an open fashion (Figure 1.4). A variety of

events, such as ritual conferences and genealogical data, are connected by paths of travel. The paths themselves may also contribute to the written content. For example, a chevron motif on a band of cloth indicates the occurrence of conflict or warfare.

The most detailed sources of the Mixtec writing system are several screenfold documents, or codices. Seven documents make up the central corpus of Mixtec screenfolds, and detail a variety of information. For example, the two documents that form the *Codex Vindobonensis Mexicanus I* cover unrelated content in that the obverse side is concerned with the geographical creation of the Mixteca, and the reverse document is composed entirely of genealogical information regarding the royal dynasties of Tilantongo.

Topic of Research

This thesis research originated in April 2010 during my studies of the political biography of Lord 8 Deer "Jaguar Claw" on the reverse of *Codex Zouche-Nuttall*. In my review of the text, I noticed that the figure's name is depicted by three distinct sign motifs on the same page (Figure 1.5). This study began as an attempt to discern patterns of association between sacred day sign motifs and their literal contexts. The Aztec *Codex Vaticanus B*

associates a counting sequence of twenty with thirteen varieties of the day Alligator (Figure 1.6), a connection which may suggest multiple meanings for each sign variety (Personal communication with Robert L. Williams, 2013). The preliminary collection and classification of signs yielded no such patterns, implying that the typology was insufficient. The following thesis focuses on providing an anthropological examination of the sign motifs that form this typology.

Explanations of the theoretical background and methodology for this thesis are detailed in Chapter 2. The discussion of the research methodology elaborates upon the distinction of individual and configurations of images. The theoretical focus of this chapter sets the foundation for the hypothesis presented in this thesis that calendar sign variations may function as nodes of a complex written message.

Chapter 3 explains the organization and cultural place of the calendar system for ancient Mesoamericans. Following the explanation of the calendar system's organization is a discussion of the meaning of Time for the Mixtec, which differs greatly from the Western perspective.

Chapter 4 introduces the sign characteristics of each sacred day. In addition to describing elements of the sign

motifs distinguished by the typology are brief interpretations of some of the days' origins and cultural relevance.

The underlying concern of Chapter 5 is to defend the cultural usefulness of the research typology. This discussion offers some interpretations for the cultural relevance of Flint day sign motifs.

Three Appendices follow the research text. Appendix 1 is a tabular expression of the day sign typology created in the first part of this research. Appendix 2 provides the complete corpus of sacred day signs, employed as names and calendar days, collected from these three documents. Although the interpretations of Chapter 5 are limited to the sacred day Flint, the complete typology and corpus are included in this work so that they may be available for future scholarship. A third appendix follows the first two as a means of defining and elaborating upon some of the arcane topics in this work. Its purpose is to make the thesis more accessible to audiences that are unfamiliar with Mesoamerican scholarship.

Research Goals

An underlying principle of this work is that calendric content is not limited to providing time-specific information. In particular, varying depictions of the

sacred calendar day signs contribute to the overall meaning of individual tableaux within the Mixtec pictographic writing system. The final chapter of this thesis explores this perspective for some sign variations of the sacred day Flint.

Figures



Figure 1.1. Global examples of ancient pictographic writing systems. (Jakobsen 2012; Layton 1991: Figure 28)

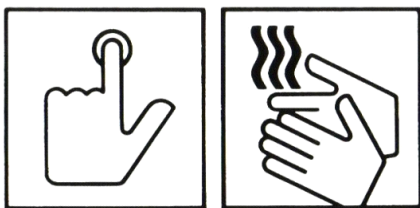


Figure 1.2. Instructions for operating a hot air hand dryer. (Boone 2000: Figure 2)



Figure 1.3. Mixtec artifacts showing limited written content. (Photos by Anthony Macias: Nochixtlán Vase, incised bone and gold pectoral from Monte Albán Tomb 7)

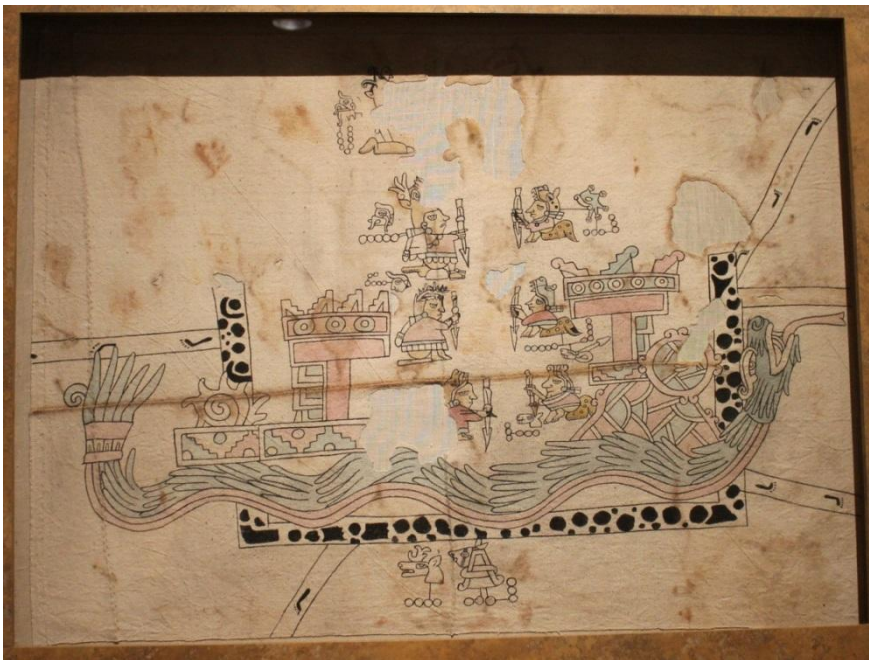


Figure 1.4. *Lienzo of Coixtlahuaca* showing open arrangement of information. (Photo by author)

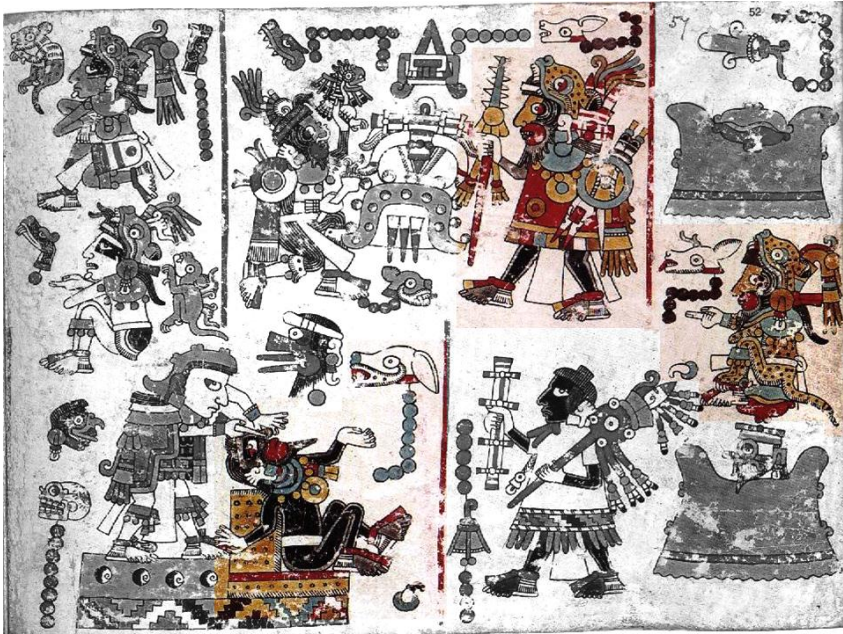


Figure 1.5. Multiple sign motifs identifying Lord 8 Deer. (Codex Zouche-Nuttall 52)



Figure 1.6. Excerpt from Aztec codex suggesting multiple meanings for day sign motifs. (Codex Vaticanus B 84)

CHAPTER 2

METHODS AND THEORETICAL BACKGROUND

Methods

Data Collection

The fundamental concern of this research is to establish a working typology of sacred day signs in two Mixtec screenfold manuscripts, *Codex Zouche-Nuttall* and *Codex Vindobonensis Mexicanus I* (henceforth abbreviated as *Codex Vindobonensis*). The signs are organized into groups of iconographic variations. The sacred days forming the research corpus were collected through a systematic examination of three documents in these manuscripts. The data corpus is comprised of more than 1400 individual signs from the obverse and reverse (or front and back sides respectively) of *Codex Zouche-Nuttall* and from the obverse of *Codex Vindobonensis*.

Each day sign was gathered sequentially, by adhering to the Mixtecs' conventional method of denoting narrative structure (Figure 2.1). This reading organization is provided by red lines called boustrophedon, literally meaning "as the bull plows" (Williams 2009:57). Each sign was identified and collected into one of twenty individual

groups, each designated for one of the sacred days. (See Appendix 2 for the complete corpus of day signs.)

Each of these collections was studied to identify structural commonalities within the group. This examination results in the creation of a typology that classifies day signs by the features they share. Day signs that share similar elements, collectively called *motifs*, are collected into sub-groups within each assemblage of days. These sign variations are regarded as culturally-derived motifs, each possessing multiple layers of meaning.

The second part of this study is to begin a process of interpreting the cultural significance of the sacred days and sign variations. This process examines and evaluates cultural materials of the Mixtec and their neighbors, as well as cultural patterns throughout Mesoamerica. These structural and interpretive analyses are founded in principles of iconography.

Iconographic Analyses

The art historian Erwin Panofsky developed a process of structural and interpretive analyses as a means of understanding the subject and meaning of art, rather than limiting the focus to formal qualities alone (1955, 1962). His methodology was introduced to archaeology by Linda

Schele and further developed by F. Kent Reilly, III (Reilly 1994) .

Panofsky established a systematic method of analyzing and evaluating information presented in works of art. The method, when applied to the archaeological record, offers a means of interpreting cultural materials. Panofsky's method is divided into three parts (Table 2.1).

Table 2.1: Erwin Panofsky Three-Part Method of Iconography (adapted from Panofsky 1955:40)	
Object of Interpretation	Act of Interpretation
I. <i>Primary or natural subject matter</i> — (A) factual, (B) expressional- constituting the world of artistic motifs.	<i>Pre-iconographical description</i> (and pseudo-formal analysis).
II. <i>Secondary or conventional subject matter</i> , constituting the world of <i>images, stories and allegories</i> .	<i>Iconographical analysis</i> in the narrower sense of the word.
III. <i>Intrinsic meaning or content</i> , constituting the world of “ <i>symbolical</i> ” <i>values</i> .	<i>Iconographical interpretation</i> in a deeper sense (<i>Iconographical synthesis</i>).

The first step of Panofsky's method is concerned with examining and evaluating the formal qualities and structures of images, a process which he calls the “pre-iconographical description” (1955:28). The purpose of this task is to identify the structural elements that compose an image. A pre-iconographical description for each of the twenty sacred Mixtec day signs will help distinguish them from other images in the text. Day signs appear in tableaux as personnel names and sacred calendar dates, and are

easily distinguished by an adjoined strand of dots (Figure 2.2).

The second part of Panofsky's method is focused on the secondary or conventional subject matter. The purpose of this effort is to "connect artistic motifs and combinations of motifs (compositions) with themes or concepts" (Panofsky 1955:29). In this thesis, the interpretive sections are rooted in evaluating different levels or depths of meaning affecting the sacred days and their collections of signs. Chapter 4 begins the interpretive process by culturally identifying each of the days, noting, for example, that signs for the day Rain are an allusion to the Mixtec rain deity, Dzahui.

The third step of Panofsky's iconographic method is admittedly a difficult task for the scholarly study of a foreign culture. Indeed the intrigue of academic research derives from navigating such obstacles. Panofsky describes the third step of his methodology as

"...ascertaining those underlying principles which reveal the basic attitude of a nation, a period, a class, a religious or philosophical persuasion--qualified by one personality and condensed into one work." (1955:30)

This description suggests a somewhat omniscient knowledge of the sign varieties and of the scribes who painted them. The endeavor to fully comprehend the intrinsic meaning of Mixtec day signs is limited in my application of the Panofskian Methodology, however. Following an initial description of the day Flint in Chapter 4 (page 40), some of the day's sign motifs are the focus of a brief evaluation of cultural relevance in Chapter 5 (pages 53-56).

The classification of sign motifs within each day group is followed by a fundamental definition of each day. This description marks the initial examination of the days' conventional subject matter and is the underlying purpose of this thesis.

Theory and Support

Writing Theory

The theoretical foundations of this research concern the relationship between communication and images. Whereas the common view of writing is based on the conveyance of information via its connection to a particular language, this research follows a broader perspective of writing. On a global scale, writing systems tend to cooperate with specific languages exclusively, but many of the ancient cultures of Mesoamerica tended to convey unspoken

information in two ways. In conjunction with a more traditional definition of writing, the Maya and Zapotec utilized *closed* writing systems composed of language-specific glyphs. In closed writing, logographic signs represent specific sounds and are formed into different configurations to function as particular parts of speech. In this way, glyph sequences are read literally.

The more common method of presenting unspoken language is called *open* writing, or what Joyce Marcus calls "complex iconography" (1992:17). Open writing systems do not link to a particular language, or, rather, comprehension of the writing does not require fluency in a spoken form. In the case of the Mixtec codices, the pictographic tableaux contain language-specific pictograms that can still be understood by non-Mixtecs.

Interdisciplinary Research

In simple terms, this thesis has one central goal: to interpret the cultural relevance of sacred calendar pictograms. The initial tasks of this project, the collection and classification of sacred day signs, rely upon a fundamental comprehension and recognition of the signs, but do not require much aid from existing scholarly work. The interpretive portions of this research, however, call upon multiple disciplines of scholarship. Undoubtedly,

a sincere application of the Panofskian Methodology requires an inter-disciplinary approach.

Conclusion

As outlined above, the underlying method of this thesis follows that of Erwin Panofsky. Any sincere utility of Panofsky's methodology will incorporate interdisciplinary support in seeking to identify and understand, or at least to recognize and acknowledge, the cultural implications of the material in focus. In this way, this thesis seeks to examine and evaluate formal details in Mixtec day signs. Although the classification and interpretations of these day signs may fall within the realm of Anthropology, the scholarly theorists focus on writing, linguistics, archaeology, art history, and history.

Figures



Figure 2.1. Emphasis of boustrophedon lines in a Mixtec document. (*Codex Zouche-Nuttall* 69)



Figure 2.2. Mixtec counting scheme identifying the Oracle of the Dead, Lady 9 Grass. (*Codex Vindobonensis* 33)

CHAPTER 3

TIME IN MESOAMERICA

Calendar Use and Organization

The peoples of ancient Mesoamerica observed time through a system of calendars. Ethnographic and archaeological evidence shows that many of these cultures incorporated multiple calendar cycles. For example, the Maya recorded cycles following the movements of the sun, the moon, and Venus, as well as other cycles that seem to lack ties to nature (Schele and Miller 1986).

At the heart of all Mesoamerican cultures and traditions, regardless of additional cycles and observances, was a central two-part calendar system, expressed differently by different cultures. The 260-day sacred calendar cycle provides the structure for ritual activity in Mesoamerica by organizing events through non-durational or metaphorical time (Jansen 1988). More precisely, "Supernatural, natural, mythical, and historical events--whether important or trivial--were shaped by this calendar" (Boone 2007:13). Trained calendar priests evaluated dates ritually through the consultation of special texts (Spores 1983; Furst 1992; Boone 2007). Each

day of the sacred calendar fits into an intricate rubric that, through the medium of ritual divination, identified a person's fate.

Functionally, a practical use for the sacred calendar is that it provides one of an individual's names, which is the day name of one's birth. A common method of showing a birth statement in Mixtec writing combines this calendar name with a birth date (Figure 3.1). It is likely that codex scribes were in close contact with calendar priests, as the codices incorporate references to information attained through ritual prognostication. A clear example of this cooperation concerns the Tilantongo heir Lord 2 Rain, who was actually born on the day 9 Reed. In both *Codex Bodley* and *Codex Zouche-Nuttall*, 2 Rain's birth statements note this naming discrepancy. The name change implies an attempt to alter 2 Rain's fate, although his eventual death marked the end of Tilantongo's first dynasty.

The sacred or ritual calendar is composed of twenty named days, a collection of natural and preternatural powers, as well as some hand-crafted objects (Caso 1965b; Smith 1973; Boone 2007; Williams 2009). The twenty days represent elements of the central Mesoamerican cultures and environment. The Mixtec and Aztec peoples share the same

collection of named days, although neither culture is the original source of these specific days.

Table 3.1: 260 Days of the Sacred Calendar													
Day	Numerical Count												
Alligator	1	8	2	9	3	10	4	11	5	12	6	13	7
Wind	2	9	3	10	4	11	5	12	6	13	7	1	8
House	3	10	4	11	5	12	6	13	7	1	8	2	9
Lizard	4	11	5	12	6	13	7	1	8	2	9	3	10
Serpent	5	12	6	13	7	1	8	2	9	3	10	4	11
Death	6	13	7	1	8	2	9	3	10	4	11	5	12
Deer	7	1	8	2	9	3	10	4	11	5	12	6	13
Rabbit	8	2	9	3	10	4	11	5	12	6	13	7	1
Water	9	3	10	4	11	5	12	6	13	7	1	8	2
Dog	10	4	11	5	12	6	13	7	1	8	2	9	3
Monkey	11	5	12	6	13	7	1	8	2	9	3	10	4
Grass	12	6	13	7	1	8	2	9	3	10	4	11	5
Reed	13	7	1	8	2	9	3	10	4	11	5	12	6
Jaguar	1	8	2	9	3	10	4	11	5	12	6	13	7
Eagle	2	9	3	10	4	11	5	12	6	13	7	1	8
Vulture	3	10	4	11	5	12	6	13	7	1	8	2	9
Motion	4	11	5	12	6	13	7	1	8	2	9	3	10
Flint	5	12	6	13	7	1	8	2	9	3	10	4	11
Rain	6	13	7	1	8	2	9	3	10	4	11	5	12
Flower	7	1	8	2	9	3	10	4	11	5	12	6	13

Each ritual calendar cycle is divided into twenty 13-day months, called *trecena* in the Aztec times (Williams 2004; Boone 2007). Table 3.1 shows the complete sequence of days for each sacred calendar cycle. The twenty days follow a set sequence and each month counts them from one to thirteen (Figure 3.2). This numbering pattern is known as a coefficient of thirteen (Jansen 1988; Boone 2007). The first *trecena* begins on the day 1 Alligator, followed by 2 Wind, 3 House and continues until 13 Reed. The fourteenth

day of the ritual cycle begins the second month and is named 1 Jaguar, succeeded by 2 Eagle and 3 Vulture. A complete 260-day sacred calendar cycle ends in the twentieth month on the day 13 Flower (Caso 1965b; Williams 2004).

The second cycle of the two-part calendar is the 365-day solar year, which influenced agricultural practices and was used primarily as a measurement of chronological time (Jansen 1988; Edmondson 1992; Williams 2009; Townsend 2009). The A-O symbol, which is based on the central Mesoamerican representation of the sun (Figure 3.3), identifies the solar year in Mixtec writing. The sacred days Reed, Flint, House, and Rabbit are re-purposed as solar year designations. In the written format, the four year-bearers are incorporated into the A-O symbol (Figure 3.4). As with the sacred round, a coefficient of thirteen counts the years in each solar cycle from 1 Reed to 13 Rabbit. At the end of each solar year is a period of five or six unnamed days, called the "useless month" (Spores 1983:343).

The ritual and solar rounds that comprise the trans-Mesoamerican calendar system form a 52-year cycle, or century. Each of these 52-year periods contains 52 solar and 73 ritual calendar cycles, which combine to a total of

18,980 days (Williams 2009). For the Mixtec, this overall 52-year calendar round lasts from the year 1 Reed, day 1 Alligator to the year 13 Rabbit, day 13 Flower.

The Nature of Time

The two-calendar tradition is complicated for many Westerners because we tend to see time only as a progression of events and calendars only as a means of arranging this sequence (Furst 1978; Williams 2009). Our culture uses time as a linear organization of dates, each of which remains insignificant until an event gives it meaning. The eleventh day of November, for example, did not bear international significance until 1918 with the signing of a ceasefire agreement to end the First World War. The significance of November 11th gained greater meaning for Americans in the following decades and was renamed Veteran's Day to honor all war veterans.

Throughout Mesoamerica an event derives its significance from the allegory contained within the ritual calendar (Schele and Miller 1986; Williams 2009). These metaphorical dates do not describe a chronological representation of time (Jansen 1988). The Mixtec convention for identifying sacred contexts is a year-day pairing. In the *Codex Vindobonensis* obverse, for example, the date 13 Rabbit-7 Lizard is linked with pulque rituals (Figure 3.5).

Scholars interpret some metaphorical dates in *Codex Vindobonensis* with less specific detail: 1 Reed-1 Alligator signifies "beginnings" and 13 Rabbit-2 Deer is "a preparatory date" (Furst 1978:90, 129).

Although a metaphorical date usually represents a sacred activity, the same year-day pairing maintains a place within a chronological timeline. One such example is the birth of the legendary Mixtec hero Lord 8 Wind "Eagle Flints" on the date 1 Reed-1 Alligator (Figure 3.6). In the same sense, metaphorical and chronological dates are not necessarily mutually exclusive. The sacred date 13 Rabbit-2 Deer, employed throughout the *Codex Vindobonensis* obverse as a preparatory date, appears in the *Codex Zouche-Nuttall* obverse following a peaceful transition during the War from Heaven (Figure 3.7). A further example of integrating metaphorical with durational time is in the consecration of places by deities in the *Codex Vindobonensis* obverse and similar activities performed by Lord 8 Wind in the opening pages of the *Codex Zouche-Nuttall* obverse.

For Mesoamericans, as with the American re-designation of November 11th as Veteran's Day, events can affect the meaning of a particular date. One such case is the consequence of a severe drought affecting Central Mexico during the year 1 Rabbit (AD1454) that resulted in the

threat of famine associated with subsequent years 1 Rabbit (Boone 2007).

Conclusions

In ancient Mesoamerica, time was repetitive and imbued with sacred meaning. The paired calendars made it possible for indigenous peoples to account for different types of time simultaneously. In this way, the Mixtecs and other Mesoamericans aligned metaphorical content with the sacred days, while measuring chronological years through the solar cycle.

Figures



Figure 3.1. Birth statement linking birth date and calendar name. (Codex Zouche-Nuttall 26)

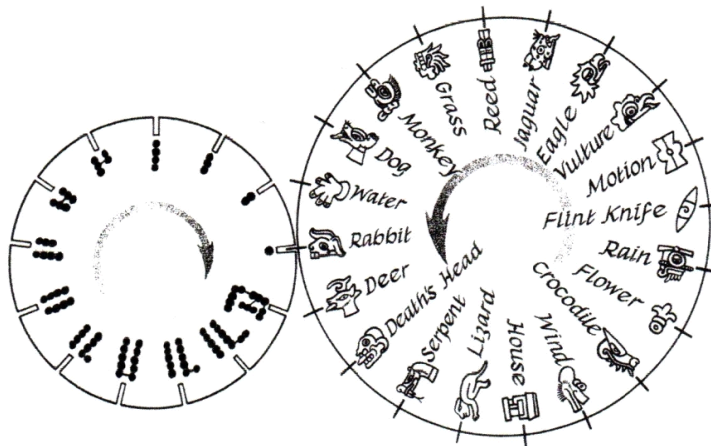


Figure 3.2. Visual representation for the coefficient of thirteen counting scheme in Aztec and Mixtec months. (Townsend 2009:Figure 72)



Figure 3.3. Association of the A-O symbol with central Mesoamerican convention for representing the sun. (Codex Vindobonensis 14, Codex Zouche-Nuttall 21)



Figure 3.4. A-O symbol utilized by each of the four year-bearers. (*Codex Zouche-Nuttall* 3, 27, 3, 26)

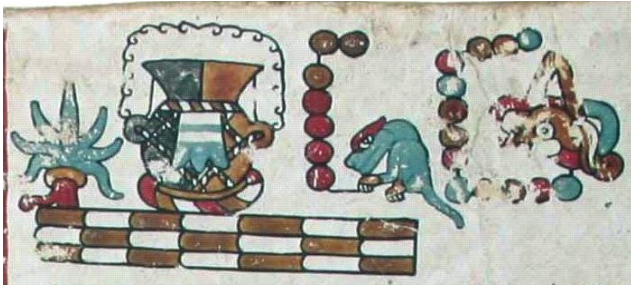


Figure 3.5. The date 13 Rabbit-7 Lizard as a metaphor for pulque rituals. (*Codex Vindobonensis* 40)

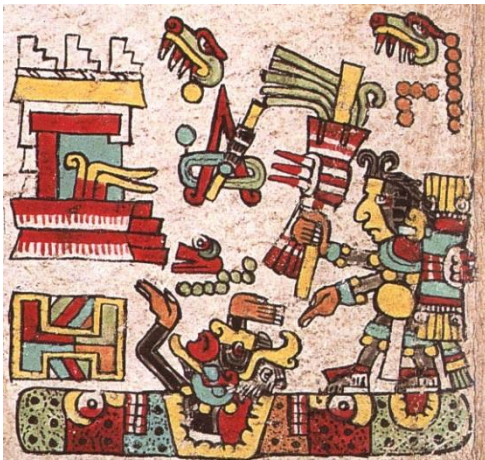


Figure 3.6. Birth of Lord 8 Wind on the chronological date 1 Reed-1 Alligator. (*Codex Zouche-Nuttall* 1)



Figure 3.7. Ritual event following a peaceful transition after the War from Heaven. (*Codex Zouche-Nuttall* 4)

CHAPTER 4

EXAMINATION OF THE SACRED DAYS

In the Introduction to this thesis, I noted that the preliminary task of this research was the collection and iconographic classification of sacred day signs from two Mixtec codices--*Codex Zouche-Nuttall* and *Codex Vindobonensis* obverse. An iconographic analysis evaluates a combined corpus of more than 1300 signs for structural variations.

Description of the Sacred Days

Twenty named days representing physical and metaphysical elements of the Mixtec culture comprise the sacred calendar round. Many of the sacred day signs, particularly those named for animals, are easily recognizable. Many of the day names are not far removed from their depictions. In this way, the days representing Mesoamerican fauna employ signs in the form, at least partially, of that particular animal.

The Mixtec applied a special vocabulary to the sacred calendar days, each respective term of which is included in the following descriptions (Miller 1973:24-25). The

classification of day signs requires a conceptual understanding of each sacred day.

The sacred day Alligator, or *Quevui* in the special vocabulary for Mixtec sacred days, is sometimes also called Crocodile, although the probable natural-world inspiration is neither. The common caiman (*Caiman crocodilus*) is one of the most common crocodilians in the geography and is known to be sacred to the Olmec. The Mixtec day sign shows a partial caiman head, omitting the creature's mandible. This standardized representation suggests a connection to an Aztec creation story in which an earth monster bites off the deity Tezcatlipoca's left foot during the separation of land and sky. Tezcatlipoca, in turn, tears off the creature's mandible (Figure 4.1).

The day Wind, *Chi*, is depicted as the beak-like buccal mask of the central Mexican wind deity. An identifiable Mixtec wind deity is absent from the codices, but the Aztec Quetzalcoatl-Ehécatl wears regalia similar to that of the Mixtec culture hero Lord 9 Wind. Although a traditional association of buccal masks with wind is evident in pictographic writing throughout central Mesoamerica (Grove 1968; Reilly 2004; Lincón Mautner 2005), the exact origin of this wind god imagery is unclear. Additionally, two day signs in *Codex Bodley* share similar iconography to the

zoomorphic figures at the Formative (2000 - 400BC) site of Chalcatzingo (Figure 4.2). A similar depiction of the wind god's buccal mask appears in the *Codex Vindobonensis* obverse in which an unnamed figure interpreted as 9 Wind converses with a second unnamed figure (Figure 4.3). These depictions show wind or air, as speech, emerging from the buccal mask.

The sign for the day House, *Cuau* or *Mau*, employs the common form of a temple, used throughout the Mixtec codices and the collective archaeological record of central Mexico (Figure 4.4). House signs are depicted directly and from a profile view. Most sign varieties show a simple form of two pillars upon a platform, topped by a flat roof. Some of the more detailed motifs depict a thatched roof.

Specific species have yet to be identified for the day sign Lizard. Brinton (1893) suggests that the day sign, *Q(ue)*, concern the female iguanas or other primarily-arboreal lizards. Despite the species' common name, Green Iguanas (*Iguana iguana*) naturally appear in a wide range of colorations (De Vosjoli et al 2003). Depending on their specific genetic population and geographic habitat, individual iguanas may have multiple colors (Figure 4.5). The variety of colors in Mixtec depictions of Lizard day

signs may evidence long distance trade or interaction with the Caribbean and South America.

For the purposes of this research, signs for the day Serpent, *Yo*, depict the disembodied head of a snake. The typology distinguishes sign variations primarily by tongue direction and dentition. Two unusual depictions of this day appear in the corpus, but the signs are not treated as distinct variations (Figure 4.6). Granata (1980) interprets various morphological elements in Serpent day signs as indicative of snake species. For example, he associates long fangs and "a grey or blue-tipped tail ending" with coral snakes (Granata 1980:185). Due to the absence of tails from the Mixtec portrayal of Serpent day signs, Granata calls attention to dentition, noting that coral snakes possess only hollow fangs in the maxilla. Thus, as Figure 4.7 shows, Serpent day signs are primarily distinguished by two types of dentition: small teeth preceding long curved fangs (left) and long fangs at the end of the face (right).

The sacred day Death, *Mahu(a)*, is represented by signs in the shape of a human skull in profile. The variations are distinguished by the presence or absence of certain formal qualities (mandible, tongue, parted jaws), as well as elements more cultural in nature (sun decoration,

sacrificial knife). With the exception of three signs in the *Codex Zouche-Nuttall* reverse, most Death signs include yellow spots. Due to the proliferation of these spots throughout the corpus of Death signs, this characteristic is omitted from consideration in the research typology. Another element ignored by the typological classification is present in only two signs, both of which are found in the *Codex Zouche-Nuttall* obverse (Figure 4.8). This characteristic incorporates the scroll motif emerging from the human crania and may represent the expulsion of the human life force or soul.

The day Deer, *Cuaa*, is portrayed as the disembodied head of a male or female white-tailed deer (*Odocoileus virginianus*). Most of the Deer signs in the research corpus are brown in color, as they would appear in the wild. Several depictions of deer in the *Codex Zouche-Nuttall* reverse, both in and out of calendric utility, are white (Figure 4.9).

Although Rabbit, *Sayu*, is one of the four year-bearers of the solar calendar, it is also one of the least frequent signs in the research corpus (34 signs). Throughout *Codex Bodley*, some variations of the day Rabbit display cranial protrusions above the eye. Williams has suggested that this characteristic correlates to the morphology of a species of

jack rabbit indigenous to southern Mexico (Personal Communication, 2012). Due to the limited examples of this protruding element in the research corpus, however, the few examples of "horned" rabbits are classified alongside elements that more closely resemble whiskers (Figure 4.10). A similar feature is present throughout the collections of Dog and Jaguar day signs.

The signs for the day Water, *Tuta*, take on two primary forms. The more common representation draws on a trans-Mesoamerican association between naturally-flowing water and caves. This motif, which dates back to the Formative Period (2000 - 400BC) in central Mexico, depicts cave openings as an earth monster's toothy maw (Figure 4-11). The second, less common depiction of the day Water uses a conventional depiction of a watery toponym, as a lake or river, sometimes including a waterfall (Figure 4.12).

Signs for the sacred day Dog, *Hua*, typically portray a white dog with one black spot on the brow. The particular breed of dog is unclear, but some tableaux in the *Codices Vindobonensis* obverse and *Zouche-Nuttall* suggest that a variety of canines held a place within Mixtec ritual and culture (Figure 4.13). Brinton's (1893) linguistic discussion notes that the corresponding Aztec day name, *Itzcuintli*, is a general term for canines.

The day Monkey, or *Ñuu* in the special vocabulary, is represented by signs in the form of a disembodied monkey's head and face in profile. Some research reveals that howler (*Aloutta palliata*) and spider (*Ateles geoffroyi*) monkeys inhabit contemporary Oaxaca (Ortiz-Martínez, Rico-Grey, and Martínez-Meyer 2008). Identification of individual Monkey species among the day signs, however, is difficult due to the limited naturalistic morphology contained within them. A goggle-eye feature present on some signs in the *Codices Vindobonensis* obverse and *Zouche-Nuttall* reverse seems reminiscent of a spider monkey (Figure 4.14). As with the sacred day Deer, some Monkey signs depict sexual dimorphism in the form of dentition. The emphasis of enlarged maxillary canines on some signs is interpreted as the identification of males, a morphological characteristic shared by primate species in Mesoamerica and throughout the world.

In its most rudimentary forms, the day Grass, *Cuañe*, is represented by a human mandible with an eye connected by its optic nerve. In one example on the reverse of *Codex Zouche-Nuttall*, the day sign is limited to just the jaw bone. In most cases, the Grass sign shows the mandible, eye attached by optic nerve, and blades of grass sprouting upward from the jaw. The codices show the use of woven

grass mats in a variety of ritual contexts (Figure 4.15). The Aztec observed a symbolic connection between *malinalli* grass and the Earth Mother complex (Peterson 1983). This connection may offer some explanation for Furst's notion (1978) that Lady 9 Grass, the Mixtec Oracle of the Dead, is connected to the Earth Mother cult.

The day Reed, Huiyo, represents the hollow reed used in atlatl darts and smoke drilling rituals (Figure 4.16). At some times, the Reed sign will point toward its associated context. The implements are decorated with tufts of eagle down, and darts tend to include a stone point. Reed signs are occasionally depicted as a bundle of darts or drills. In his explanation of the cosmological meaning of the day Motion, noted below, Hall (1997:112) observes that atlatl darts were utilized by the Aztec to represent "beams of sunlight or starlight."

Signs for the day Jaguar, Huidzu, depict either a spotless puma (Puma concolor) or a spotted jaguar (Panthera onca). Signs depicting a jaguar are more common (Figure 4.17). The unspotted variety of this day may also represent a jaguarundi (Puma yagouaroundi), which lives throughout Mesoamerica.

Signs for the Mixtec day Eagle, Sa, resemble the harpy eagle (Harpia harpyja), which scholars have identified as

the primary raptor bird throughout Mesoamerican cultures (Figure 4.18). This culturally important bird is apparent in the Mixtec documents central to this research. A common ritual action in the *Codices Vindobonensis* and *Zouche-Nuttall* is the offering of blood following bird decapitation. The juxtaposition of one such event with an Eagle day sign reveals the ritual utility of eagles in Mixtec ceremony (Figure 4.19).

Sign depictions of the day Vulture, *Cuii*, show two types of beaks. A short, round beak is indicative of the King Vulture (*Sarcoramphus* *papa*), and a longer, narrow beak is akin to that of the Black Vulture (*Coragyps* *atratus*). Research tends to suggest that the day Vulture represents the King Vulture (Boone 2007), but only a small number of signs resemble the species (Figure 4.20). Many of the day signs incorporate a cranial ridge or crest that loosely resembles a Mohawk. All Vulture signs in the research corpus depict the bird with a pierced human ear.

More than the other sacred day signs, those for the day Motion, or *Qhi*, function as linguistic markers. The seemingly abstract ideogram represents an earthquake or preternatural movement (Jansen and Pérez-Jiménez 2005). Hall (1997) has noted that the sign takes on the form of an atlatl, its bulbous center representing the finger holes of

the spear-throwing device (Figure 4.21). He implies further that the halves of the Motion sign are colored differently to represent the separation of night from day (Hall 1997).

The sacred day Flint, *Cusi*, depicts a stone knife employed in human and animal sacrifice rituals (Figure 4.22). Normally, Flint day signs are depicted as a white ellipsis with red tips. The red coloration on Flint signs is presumed to represent various patterns of blood-staining. A further examination of the sacred day Flint is the interpretive focus of Chapter 5 (page 53).

The sign for the sacred day Rain, *Co*, mimics the mask worn by impersonators of the Mixtec lightning deity, *Dzahui* (Figure 4.23). The key iconographic features of *Dzahui* employed in Rain day signs include a green or blue goggle eye situated atop a mustache of the same color, from which emerge several jagged teeth. Depictions of the Mixtec lightning deity often attach a horizontal nasal piercing and front-facing scrolling features to the Rain signs.

The collection of Flower, *Huaco*, day signs is one of the most formally diverse in the research corpus. Common elements include blossoms of different shapes, styles and postures, as well as tendril or root-like elements (Figure 4.24). A small number of Flower signs incorporate a stamen, but the feature does not contribute to the classification

typology due to its infrequency in the corpus. The stamen feature is instead interpreted as a visual remnant of its respective sign's linguistic meaning (Lozoya 1983). Some day signs correlate to depictions of squash flowers at the Maya site of Chichén Itzá, as well as cactus blooms in the Colonial Period (AD1521 - 1810) Aztec document *Historia Tolteca-Chichimeca* (Figure 4.25). Due to the extensive utility of plants throughout trans-Mesoamerican religion and sustenance, as well as of scientific classification, the identification of specific plant species is a difficult task.

Sacred Power

Although the individual days fit neatly within categories as either physical or metaphysical powers, each day incorporates both natural and supernatural qualities (Figure 4.26). Variations of the day Flint possess facial features to indicate animation, demonstrating that the object is alive. The animation of a human-made tool of sacrifice, therefore, draws an important connection between the physical and metaphysical worlds. Other signs incorporate a similar dualism through the depiction of ritual regalia.

Ancient Mesoamericans regarded various forms of weather as the display of preternatural powers. In this

sway, the sign for the sacred day Rain reflects the mask worn by the rain deity Dzahui and his impersonators (Figure 4.23). Similarly, signs for the day Wind take on the form of the buccal mask associated with the wind deity (Figure 4.3). The name of the Mixtec wind deity may originate from the common vocabulary recorded by Fray Alvarado in the 16th Century during the European colonization of Mexico. Whereas the name of the Mixtec rain deity (Dzahui) is linguistically similar to their term for rain (*dzavui*), the wind god's name may have been similar to *tachi*, the Mixtec word for wind (Smith 1973). These examples show that day signs embody a juxtaposition of physical and metaphysical power that each respective sacred day possesses and invokes.

Conclusions

Any new typology requires a detailed evaluation. Although an exhaustive discussion of these variations is certainly necessary to weigh the typology's merit, this thesis is intended only to present a working typology of sacred day varieties. Regardless of this limited research focus, however, the Appendices are an important source of data for future studies of day signs in the *Codices Zouche-Nuttall* and *Vindobonensis* obverse.

This chapter's discussion of sacred day signs is limited in interpretations. These descriptions offer vague explanations for each group of day signs as a means of creating a foundation for the more extensive interpretations of the next chapter. Chapter 5, then, explores the cultural relevance of particular Flint sign motifs within the Mixtec codices and their neighbors' cultural material.

Figures



Figure 4.1. Alligator motifs for the Mixtec and Aztec.
(*Codex Vindobonensis* 3; *Codex Fejérváry-Mayer* 42)



Figure 4.2. Correlation of Wind signs similar in structure
to Chalcatzingo imagery. (*Codex Bodley* 34, 39; Reilly 2004:
cropped detail of Figure 9)



Figure 4.3. Male figure depicted with speech scrolls.
(*Codex Vindobonensis* 38)



Figure 4.4. Common depictions of the house motif in Mesoamerican cultural materials. (*Codex Vindobonensis* 12; *Codex Zouche-Nuttall* 9; Cholula, Photo by Anthony Macias)



Figure 4.5. Lizard day signs compared with iguanas in contemporary Mexico and Cuba. (*Codex Zouche-Nuttall* 2; Photo by Rachel Marchant 2004, Photolibra; *Codex Zouche-Nuttall* 24; Photo by Cary Bass 2007, Wikimedia Commons)



Figure 4.6. Unusual depictions of the sacred day Serpent. (*Codex Vindobonensis* 30, *Codex Zouche-Nuttall* 23, 4)

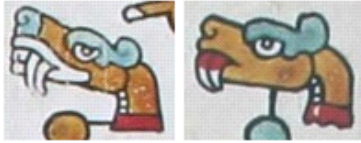


Figure 4.7. Variations of dentition in day signs for the day Serpent. (*Codex Vindobonensis* 33, 46)

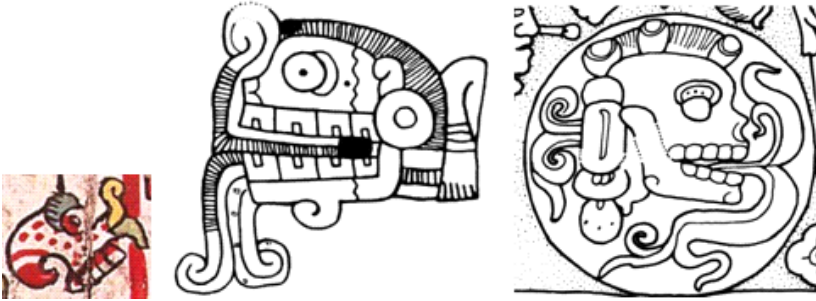


Figure 4.8. Scroll motif in human crania from the Mixtec, Huastec, and Maya. (*Codex Zouche-Nuttall* 12; Beyer 1933: Figure 66; Schele and Miller 1986: Figure VI.3 detail)



Figure 4.9. Depiction of a white doe as a day sign and in regalia. (*Codex Zouche-Nuttall* 67)



Figure 4.10. Rabbit day signs showing the horn or whisker element. (*Codex Bodley* 25; *Codex Vindobonensis* 42; *Codex Zouche-Nuttall* 80)

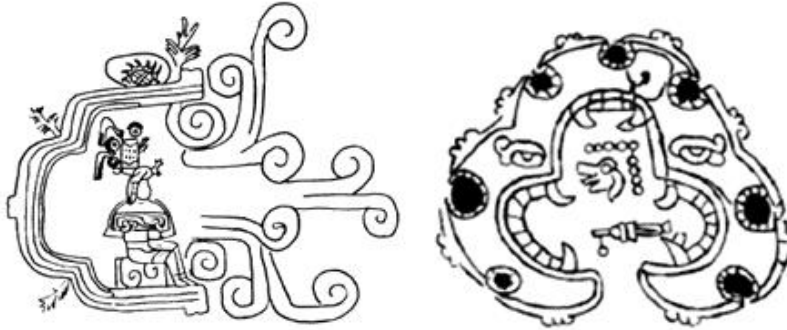


Figure 4.11. Primordial cave and maw motif for various Mesoamerican cultures. (Mixtec, *Codex Zouche-Nuttall* 35 and *Codex Vindobonensis* 39; Olmec, Grove 1968: Figure 1; Aztec, Boone 2003: Figure 27.7)



Figure 4.12. Water day sign in the form of a toponym. (*Codex Zouche-Nuttall* 13; *Codex Vindobonensis* 45)



Figure 4.13. Mixtec depictions of white dogs and striped coyotes in place names, sacrifices, and regalia. (Codex Vindobonensis 19, Codex Zouche-Nuttall 17, 64; Codex Zouche-Nuttall 72, 44, 26)



Figure 4.14. Monkey day sign compared with a Mexican spider monkey. (Codex Zouche-Nuttall 83; Photo by Paddy Ryan, www.ryanphotographic.com)



Figure 4.15. Grass mats used in rituals associated with the Mixtec rain deity and during a death bundle cremation. (Codex Zouche-Nuttall 5, 82)



Figure 4.16. Reed day signs as an atlatl dart and smoke drill associated with tableaux depicting the same uses. (Codex Zouche-Nuttall 16, 83; Codex Zouche-Nuttall 9 and Codex Vindobonensis 32)



Figure 4.17. Juxtaposition of the day Jaguar with a modern jaguar. (Codex Zouche-Nuttall 31; Photo by John Harrison 2008, Wikimedia Commons)



Figure 4.18. Post-Classic eagle depictions compared with a contemporary harpy eagle. (*Codex Zouche-Nuttall* 15; Zaachila ceramic, photo by Anthony Macias; Photo by Tom Friedel 2008, Wikimedia Commons)



Figure 4.19. Eagle day sign compared with bird decapitation ritual. (*Codex Vindobonensis* 28, 22)



Figure 4.20. Vulture day sign compared with a King Vulture. (*Codex Zouche-Nuttall* 59; Photo by Eric Kilby 2008, Wikimedia Commons)

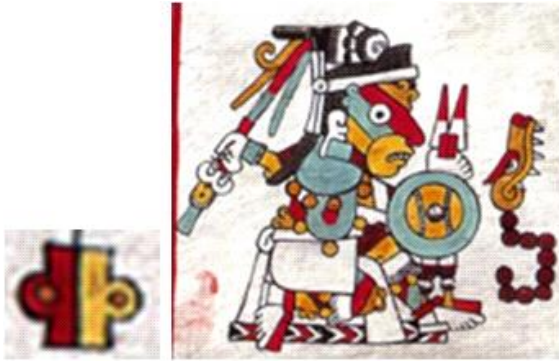


Figure 4.21. Motion day sign compared with an atlatl.
(Codex Zouche-Nuttall 35, 66)

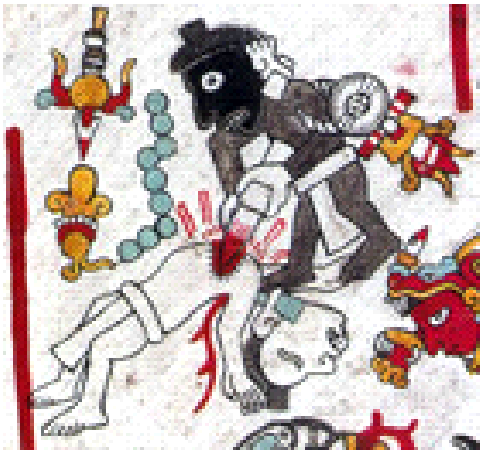


Figure 4.22. Flint knife in use during a ritual sacrifice.
(Codex Zouche-Nuttall 69)



Figure 4.23. Sacred day sign Rain compared with the Mixtec rain deity, Dzahui. (Codex Zouche-Nuttall 33, 3)



Figure 4.24. Flower sign motifs from the research corpus.
(*Codex Vindobonensis* 18, 25; *Codex Zouche-Nuttall* 2, 4, 74)



Figure 4.25. Mixtec Flower day signs compared with Maya squash and Aztec cactus blossoms. (*Codex Zouche-Nuttall* 52, Schele and Miller 1986: detail of Figure VI.3; *Codex Zouche-Nuttall* 10, Townsend 2009: detail of Plate IV)





















Natural Powers				
				
Alligator	Wind	Lizard	Serpent	Deer
				
Rabbit	Dog	Monkey	Grass	Reed
				
Jaguar	Eagle	Vulture	Flint	Flower
Preternatural Powers				
				
House	Death	Water	Motion	Rain

Figure 4.26. Natural and preternatural powers of the twenty sacred days. (*Codex Zouche-Nuttall* obverse)

CHAPTER 5

INTERPRETATIONS AND CONCLUSIONS

The interpretive focus of this chapter functions as an example of the third step of Panofsky's iconographic methodology. The interpretations defend the usefulness of my typology by comparing Mixtec day sign varieties with similar motifs in the pictographic notations and archaeological records of the Mixtec and their neighbors.

Interpretations of the Day Flint

The regional development of this eighteenth sacred day sign over time suggests a traditional association with Xipe cults (Byland and Pohl 1994; Boone 2003; Urcid 2005). The eighteenth day in the Zapotec sacred calendar aligns with the Mixtec day Flint (Urcid 2005: Figure 1.21). In some Pre-Classic phases (500BC - AD300), the Zapotec day sign, *Lopa*, shares some iconographic traits with Post-Classic (AD900 - 1521) representations of this deity (Figure 5.1). As the Figure 5.2 shows, marriages associated with the Zapotec Xipe cult correspond with the Mixtec date year 1 Flint, day 1 Flint.

Animated Flint Motif

The incorporation of facial features onto objects signifies animation and ensoulment. This characterization is present throughout the Mixtec codices (Figure 5.3), but is most memorable among representations of sacrifice knives. Each of the seven surviving Mixtec screenfold documents employs the animated flint motif in calendric contexts (Figure 5.4). Non-calendric utility of this motif offers details about how the animated flint knife operates within Mixtec writing and culture, and further can be shown as an aspect of Aztec art and culture. The continuing archaeological excavations at the Aztec Templo Mayor, in present-day Mexico City, have yielded lithic knives bearing these elements of animation (Figure 5.5). Scholars note that these knives, decorated with "monstrous faces," were ritualistically impractical, and that they functioned primarily as *symbols* of sacrifice (López Austin and López Luján 2008:140). A reasonable interpretation would include that ensoulment gives these knives the ability to animate the act of sacrifice itself.

The *Codex Vindobonensis* obverse, which is widely interpreted as a religious document that depicts Mixtec creation and the births of deities, provides details essential to the examination of ritual activity in other

codices (Furst 1978; Williams 2009). God cult activity is a useful aid for interpreting the cultural meanings of day sign varieties throughout the codices.

The birth of Lord 9 Wind depicts a figure connected to a personified stone knife by an umbilicus (Figure 5.6). At times, the deity is portrayed wearing a flint blade helmet, which creates an appearance eternally associated with his birth (Figure 5.7). Some tableaux in the *Codex Zouche-Nuttall* allude to this connection by showing sacred bundles named for and dedicated to Lord 9 Wind (Figure 5.8). These god cult associations contribute to the academic perception of how the personified knife motif functions as a variation of the sacred day Flint.

The animated flint motif exists in other religious contexts as well. One such flint blade, excavated from the Aztec Templo Mayor, includes the goggle-eyed mask diagnostic of rain and lightning deities in central Mesoamerica (Figure 5.9). According to the iconographic concept of substitution, these masks' formal qualities may embody the cultural essence of their respective deities (Schele and Miller 1986). In this way, a goggle-eyed or long-muzzled buccal mask will substitute the presence of a rain or wind god in ritual activity (Figure 4.23, Figure

4.2). As shown in Chapter 4 (Figure 4.25), the sacred day Rain is depicted as the goggle-eyed mask of this deity.

Other Flint Sign Motifs

An interesting characteristic of the Aztec knife shown in Figure 5.9 is the prominent set of vertical dark lines. Some Flint day signs in the Mixtec codices possess similar features (Figure 5.10). As units of form, the arrangement and quantity of these lines distinguish several of the Flint sign varieties in my typology (See Appendix 1).

The other classifications of the day Flint share little iconographic data useful in interpretations. As with many of the other sacred day signs, the Flint types tend to exist as combinations of a set of structural elements. The only consistent characteristic, in calendric and non-calendric utility alike, is the blood-marked ends of each flint knife. This common element identifies the object's primary purpose as an instrument of sacrifice. Figure 5.11 shows that the two exceptions to this blood-marking, both of which may be found in *Codex Zouche-Nuttall*, are the colorless day 7 Flint associated with the conquest of "Bean Town" in the reverse and ritual offerings in the year 4 Flint in the obverse (Williams 2013).

Interpretive Complications

One of the major obstacles in evaluating pictographic writing systems is a lack of knowledge of how motifs are intended to function as cultural metaphors or specific linguistic cues. Panofsky acknowledges this issue in stating that "a correct iconographical analysis presupposes a correct identification of the motifs" (1955:30). In the event that certain sign characteristics or their meanings are evaluated incorrectly, subsequent interpretations may become meaningless.

Certain Monkey day signs appear to possess goggle eyes, a characteristic normally associated with central Mexican rain deities. There is a temptation to scour the Mixtec codices for evidence of the day Monkey in association with the Dzahui cult (Figure 5.12), but suggest that the so-called goggle eye motif is simply a Mixtec depiction of the Mexican spider monkey (Figure 4.14). There is also the possibility that the Mixtec scribes intended for this sign to characterize the qualities of both Dzahui and spider monkeys simultaneously.

Concluding Remarks

In the introduction to this thesis, I noted that this research is founded on the perspective that pictographic communication is more complex than it may seem. Several

centuries of scholars have demonstrated the validity of this principle throughout the indigenous pictographic writing systems of Mesoamerica. This thesis demonstrates that calendric notation contributes to the interpretations of this complexity.

One of the purposes of delving into the specific notations of the Mixtec sacred calendar is, in part, a reaction to the apparent absence of scholarly material focused on the twenty sacred days. The supporting texts limit descriptions of the days to a few sentences (Jansen and Pérez Jiménez 2005; Boone 2007) or give the material in a tabular format (Caso 1971; Smith 1973). Although pre-existing scholarly interpretations do include reproductions of Post-Classic Mixtec day signs (Jansen and Pérez Jiménez 2005; Boone 2007), a discussion of their formal variations is lacking. The purpose of this research has been to contribute a close examination of a specific set of Mixtec sacred day signs to our scholarly understanding of the Mixtec sacred days.

Future Research

One of the unexplored sources of sign variation for the Mixtec sacred days is the year-bearers. The incised bone artifact in Figure 5.13, as well as some of the animated Flint signs in Figure 5.4, indicates the value of

this resource. It is hoped that the on-going examination of sacred day signs will solidify the scholarly understanding of how calendric notation operates within Mixtec pictographic writing.

Figures



Figure 5.1. Pre-Classical signs for the eighteenth Zapotec sacred day compared with depictions of the flaying deity for the Post-Classical Mixtec and Aztec. (Urcid 2005: Figure 1.21; *Codex Vindobonensis* 33; *Codex Vaticanus B* 14)



Figure 5.2. Association of the Zapotec Xipe cult with the Mixtec date 1 Flint-1 Flint. (*Codex Zouche-Nuttall* 33)

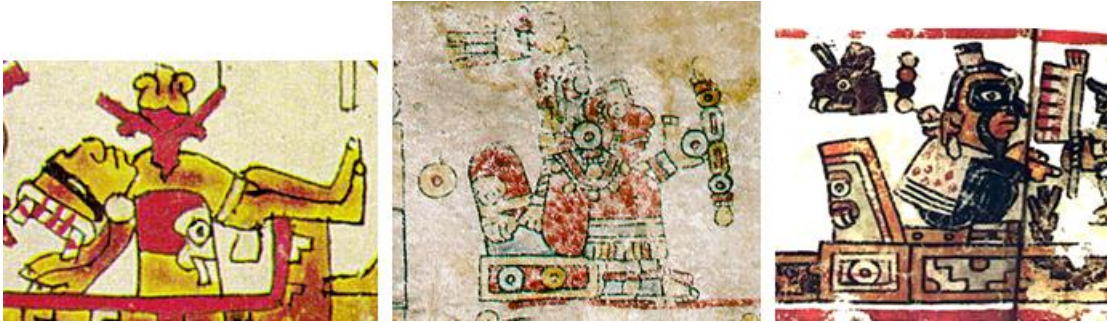


Figure 5.3. Animated objects in the Mixtec codices. (sacrifice stone, *Codex Selden* 8; thrones, *Codex Alfonso Caso* 25 and *Codex Bodley* 9)



Figure 5.4. Animated Flint sign motif in seven Mixtec documents. (*Codex Vindobonensis* obverse 11, reverse IV; *Codex Zouche-Nuttall* 2, 53; *Codex Alfonso Caso* 8; *Codex Bodley* 38; *Codex Selden* 4)



Figure 5.5. Aztec flint knives with animation features. (López Austin and López Luján 2008: Figure 2)



Figure 5.6. Birth of Lord 9 Wind from a stone knife. (*Codex Vindobonensis* 47)



Figure 5.7. Lord 9 Wind, in center, wearing a flint blade helmet. (*Codex Zouche-Nuttall* 21)



Figure 5.8. Ritual dedication of bundles honoring the deity Lord 9 Wind. (*Codex Zouche-Nuttall* 19b, 42)



Figure 5.9. Rain god imagery on an Aztec artifact compared with Aztec and Mixtec depictions of the same deity. (Mexicolore 2004; *Codex Fejérváry-Mayer* 4; *Codex Zouche-Nuttall* 5)



Figure 5.10. Line elements on Flint day signs. (*Codex Zouche-Nuttall* 20, 15; *Codex Bodley* 2, 3)

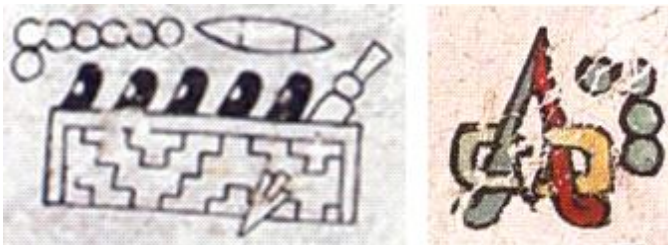


Figure 5.11. The two uses of the day Flint that lack color. (*Codex Zouche-Nuttall* 49, 14)

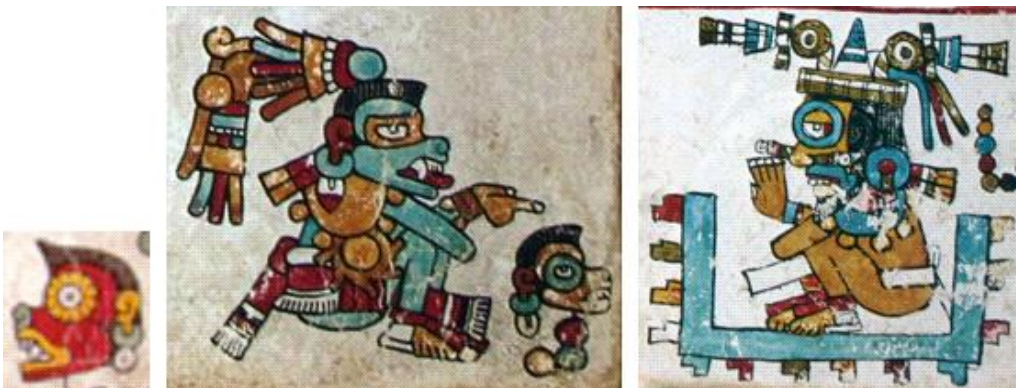






Figure 5.12. Ambiguity of iconographic motifs between the sacred day Monkey and Dzahui cult. (*Codex Vindobonensis* obverse 36, reverse I)













Figure 5.13. Incised bone artifact showing a progression of year-bearers. (Photo by Anthony Macias)






APPENDIX 1

Alligator





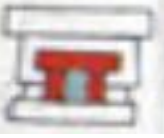


Type	Codex and Page
	oV 1, 1, 2, 10, 13, 14, 18, 28, 29, 32, 32, 32, 36, 37, 41, 41, 43, 43, 44, 46, 51
	ZN 1, 1, 1, 1, 2, 4, 4, 4, 5, 6, 8, 10, 13, 16, 21, 21, 21, 21, 21, 23, 25, 26, 31, 35, 35, 35, 35, 35, 52, 53, 54, 58, 58, 62, 62, 64, 76a
	oV 3, 3, 4, 13, 13, 13, 13, 25, 26, 27, 27, 28, 32, 34, 35, 35, 36, 39, 39, 40, 40, 40, 41, 41, 41, 41, 43, 44, 44, 45, 45, 47, 49, 49, 51
	ZN 9, 21, 42, 46, 50, 53, 66, 70
	ZN 3, 4, 8, 8, 13, 17, 19a, 19a, 19b, 19b, 19b, 19b, 19b, 19b, 19b, 19b, 21, 22, 24, 25, 25, 25, 25, 26, 31, 32, 34, 36, 38, 40
	ZN 47, 71

Wind










Type	Codex and Page
	<div>oV 2, 3, 10, 24, 24 26, 28, 28, 29, 29, 33, 35, 35, 39, 42, 43</div> <hr/> <div>ZN 11, 11, 19b, 20, 22, 27, 29, 29, 47, 53, 65</div>
	<div>oV 10, 14, 25, 25, 27, 28, 30, 31, 31, 34, 35, 35, 35, 35, 36, 36, 36, 37, 43, 46, 46, 51, 51, 51, 51</div> <hr/> <div>ZN 4, 4, 28</div>
	<div>oV 16</div> <hr/> <div>ZN 1, 2, 4, 5, 12, 15, 15, 16, 18, 20, 21, 21, 23, 33, 36, 38, 46, 46, 49, 57, 61, 62, 65, 76b, 83</div>
	ZN 11, 12, 21
	<div>oV 26, 47</div> <hr/> <div>ZN 19b, 21, 41, 41, 57</div>
	ZN 16, 18
	ZN 5, 5, 52, 68, 84
	ZN 16
	ZN 3, 3
	ZN 1, 1, 3, 7, 8

	<div>oV 23, 30, 43, 47, 49</div> <hr/> <div>ZN 19a, 19a, 28</div>
	<div>oV 46, 48</div> <hr/> <div>ZN 18, 18</div>
	<div>ZN 3, 3</div>
	<div>ZN 20</div>
	<div>ZN 2</div>









House

Type	Codex and Page
	ZN 7, 18
	oV 12, 36 ZN 6, 7, 7, 84
	ZN 13, 22, 22, 22, 23, 23, 27, 29, 31, 32, 68
	ZN 13, 19b, 20, 21, 56
	ZN 47, 57, 61
	ZN 34
	oV 13, 14, 36, 39 ZN 20, 31, 31

Lizard

Type	Codex and Page
	oV 1, 29, 33, 44, 45, 45
	ZN 1, 2, 12, 12, 20, 40, 40, 42, 44, 59, 63, 68
	oV 3, 15, 19, 21, 24, 37, 40, 50, 59, 62, 66
	oV 3, 22, 24, 24, 40, 40, 41
	ZN 1, 24
	ZN 8, 10, 13, 13, 19a
	ZN 5, 5, 8, 22, 23, 23, 23, 26
	ZN 45, 49, 56, 73
	ZN 10
	ZN 20








Serpent





Type	Codex and Page
	oV 2, 3, 5, 5, 6, 21, 22, 27, 28, 30, 33, 37, 38, 41, 51, 51
	oV 43, 46 ----- ZN 3, 3, 3, 4, 4, 9, 11, 12, 14, 18, 21, 22, 22, 26, 27, 44, 44, 45, 45, 49, 52, 52, 53, 55, 55, 64, 65, 66, 67, 68, 70, 71, 77, 77, 77
	oV 30, 33, 49 ----- ZN 10, 37, 40
	oV 4, 5, 26, 33 ----- ZN 36, 36, 37, 37, 37
	ZN 33, 39, 83
	ZN 23, 25, 26, 35, 50
	ZN 5, 6, 41
	ZN 55, 75
	oV 26

Death






<i>Type</i>	<i>Codex and Page</i>
	oV 10, 21, 24, 32
	ZN 13, 14, 14, 17, 19a, 24, 48, 65, 65, 76a
	oV 25, 43
	ZN 12, 55, 76b
	oV 2
	ZN 75, 76b
	oV 28
	ZN 4, 5, 18, 19b, 21, 22, 29, 31, 38, 41, 79, 52, 81
	oV 17
	ZN 13, 68, 76a
	ZN 21, 29, 38, 41, 79
	ZN 16, 19a, 27, 28
	ZN 48, 65, 76a
	ZN 10
	ZN 17

Deer




Type	Codex and Page
	<div>oV 12, 22, 23, 25, 27, 28, 28, 29, 30, 32, 35, 42, 43, 45, 51, 51</div> <div>ZN 5, 7, 23, 24, 26, 26, 26, 27, 29, 30, 32, 41, 42, 51, 52</div>
	oV 2, 2, 3, 4, 32, 32, 36, 38, 42
	ZN 3, 6, 9, 37
	<div>oV 26</div> <div>ZN 6, 16, 17</div>
	ZN 49, 50, 53
	<div>oV 38</div> <div>ZN 4, 48, 50, 53, 74, 75, 78</div>
	ZN 43, 54, 83
	ZN 44, 65, 67, 72, 76a, 77, 79
	ZN 8, 43, 44, 44, 45, 45, 68, 82
	ZN 51, 52, 53
	ZN 69, 70, 73

	ZN 51, 52, 65, 70, 79
	ZN 77
	ZN 43
	ZN 77






Rabbit

<i>Type</i>	<i>Codex and Page</i>
	oV 1, 2, 19, 42, 42, 43, 45, 46
	ZN 31, 32, 33, 48, 53, 67, 67, 69, 77
	ZN 8, 66, 76b
	oV 20
	ZN 11, 13, 23, 30, 48
	ZN 28, 30, 30, 31, 33, 47, 57
	oV 42
	ZN 80


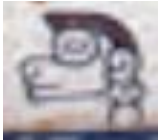

Water

<i>Type</i>	<i>Codex and Page</i>
	oV 36, 36
	ZN 2, 5, 9, 75
	oV 42
	ZN 8, 11, 24, 25, 32, 32, 44, 69, 76b, 81
	ZN 25, 26, 26, 28, 28, 28, 30, 32, 34, 35, 35, 42, 42, 44, 53, 66
	ZN 11, 58, 76b
	ZN 11, 13
	ZN 18, 19a, 19b, 24, 24
	ZN 72, 74








Dog

Type	Codex and Page
	<div>oV 10, 21, 22, 23, 25</div> <hr/> <div>ZN 3, 74</div>
	<div>oV 4, 10, 22, 25, 28, 30, 30, 37, 37, 38, 39, 42, 47, 49</div> <hr/> <div>ZN 62</div>
	<div>oV 22</div> <hr/> <div>ZN 22, 27, 31, 31</div>
	<div>oV 18, 19</div> <hr/> <div>ZN 48, 57, 64, 72, 72, 78</div>
	<div>ZN 3, 3, 4, 5, 6, 11, 11, 18, 18, 25, 25, 26, 27, 28, 28, 32, 34</div>
	<div>ZN 19a, 20, 20</div>
	<div>ZN 3</div>
	<div>ZN 83</div>







Monkey








Type	Codex and Page
	oV 8, 15
	ZN 1, 6, 8, 11
	oV 10, 14, 16, 36, 36, 36, 39
	ZN 20, 24
	ZN 4, 4, 5, 10, 11, 11
	oV 36
	ZN 43, 44, 55, 58, 67, 68, 72, 72, 73, 74
	ZN 3, 26, 30, 34, 38
	ZN 55, 74, 83
	ZN 64
	ZN 23

Grass







Type	Codex and Page
	oV 1, 4, 15, 16, 18, 23, 27, 27, 30, 34, 38, 42, 44, 44, 46, 47
	ZN 18, 20, 23, 40, 41, 72
	oV 1, 45
	ZN 5, 14, 15, 17, 30, 76a
	oV 24, 25, 33
	ZN 11, 11, 16, 20, 23, 23, 23, 24, 27, 34, 48, 58, 60, 71, 74
	oV 27
	ZN 19a, 20, 55, 56, 59
	ZN 16, 54, 79
	ZN 6, 19a, 41, 79
	ZN 24

Reed








Type	Codex and Page
	oV 1, 2, 3, 7, 7, 24, 28, 29, 33, 35, 38, 38, 39, 39, 39, 40, 40, 40, 41, 46, 48
	ZN 14
	oV 40, 42, 43, 43, 44, 46, 47
	ZN 1, 11, 17, 19b, 21, 23
	oV 47
	ZN 14, 14, 15, 15, 15, 16, 17, 23, 24, 30
	ZN 62, 63, 63
	ZN 38, 40, 41
	oV 50
	ZN 41

	<p>ZN 21, 24, 32, 33, 44, 46, 60, 60, 64, 66, 66, 67</p>
	<p>ZN 5, 9, 9, 11, 19b, 34, 39</p>
	<p>ZN 7, 56, 57</p>
	<p>ZN 5</p>
	<p>oV 45</p>
	<p>ZN 32</p>
	<p>ZN 69</p>









Jaguar

Type	Codex and Page
	oV 3, 16, 16, 16, 16, 28, 40
	ZN 4, 12, 13, 14, 20, 23, 25, 35, 40, 52
	oV 21, 22, 29, 36, 36, 37, 41
	ZN 48, 55, 58, 61, 63, 66, 70, 71, 74, 76b, 77, 79, 82
	oV 41
	ZN 23, 23
	ZN 53, 72, 79
	ZN 1, 7, 9, 11, 31, 80
	ZN 2










Eagle

Type	Codex and Page
	<div>oV 1, 10, 10, 25, 28, 32, 33, 34, 34, 34, 34, 37, 42, 44, 44, 47, 50</div> <hr/> <div>ZN 8, 23</div>
	<div>oV 4, 16, 17, 24, 50</div> <hr/> <div>ZN 8, 31, 42, 59, 60, 61, 71, 76a</div>
	<div>oV 17, 21, 33, 37, 37, 37</div> <hr/> <div>5, 6, 7, 8, 11, 12, 12, 13, 16, 18, ZN 18, 19a, 19b, 22, 23, 26, 27, 28, 29, 30, 32</div>
	<div>ZN 1, 3, 6, 6, 15, 16, 18, 19b, 41, 42, 47, 71, 72, 73</div>
	<div>ZN 29</div>
	<div>ZN 80</div>
	<div>oV 23</div>







Vulture








<i>Type</i>	<i>Codex and Page</i>
	oV 4, 11, 11, 32, 36 ----- ZN 18, 54, 61, 61, 73
	oV 11, 11, 11, 35 ----- ZN 14, 34
	oV 28, 29, 38, 49 ----- ZN 28, 32, 33, 34
	oV 32, 36 ----- ZN 67, 70
	ZN 1, 43, 59, 59, 59
	ZN 9, 17, 19a, 20, 27
	ZN 9, 13, 24, 25
	ZN 12, 19b, 27
	ZN 54, 73, 84
	ZN 15

Motion

Type	Codex and Page
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	<div> 1, 2, 3, 4, 4, 4, 4, 6, 6, 8, 12, 12, ZN 19a, 19b, 20, 22, 24, 44, 45, 45, 68, 70, 76a, 76b, 76b, 77, 81, 81 </div>
	<div> ZN 4, 7, 12, 14, 17, 18, 19a, 22, 23, 24, 24, 25, 26, 35, 35 </div>
	<div> oV 2, 4, 23 </div> <hr/> <div> ZN 80 </div>
	<div> ZN 47, 48, 54, 73, 78 </div>
	<div> oV 4 </div> <hr/> <div> ZN 30 </div>
	<div> oV 33 </div> <hr/> <div> ZN 14, 16, 27, 31, 36 </div>
	<div> ZN 20 </div>
	<div> oV 29 </div>

Flint










Type	Codex and Page
	oV 12, 12, 14, 14, 23, 24, 29, 36, 36, 36, 39, 43, 47
	ZN 15, 16, 16
	oV 11, 11, 12, 42, 46, 50
	ZN 2, 13, 50, 53, 62
	oV 24, 24
	ZN 15, 15, 20, 24
	ZN 16, 17, 18, 19a, 19b, 21, 22, 23, 32
	ZN 32, 41, 54, 56, 73, 82
	ZN 8, 19b, 22

	ZN 7, 33, 34, 34
	ZN 16, 17, 24
	ZN 17, 49
	ZN 17, 41
	ZN 7
	ZN 14
	ZN 62, 63

Rain












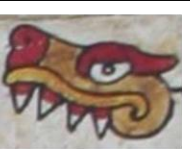







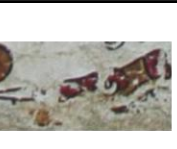




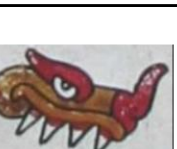










Type	Codex and Page
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	<p>oV 45, 47</p> <hr/> <p>ZN 8, 46, 46, 51, 56, 60, 62, 65, 71, 73</p>
	<p>ZN 2, 9, 15, 17, 17, 17, 17, 19a, 22, 24, 37, 38</p>
	<p>ZN 1, 7, 8, 8, 12, 14, 14, 14, 15, 33</p>
	<p>ZN 36, 36, 38, 39, 39, 39, 39</p>
	<p>ZN 9, 9, 33, 37</p>
	<p>ZN 12, 71</p>









































Flower










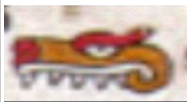








Type	Codex and Page
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	oV 2
	ZN 16, 17, 17, 18, 19a, 22, 23, 68, 76a, 76b, 76b, 76b
	oV 16, 18, 18, 24, 27, 27, 30, 32, 35, 35, 36, 36, 39, 40, 41
	ZN 4, 25
	oV 23, 25, 35, 35
	ZN 46, 47, 48, 49, 62, 66, 67, 67, 73
	oV 27
	ZN 1, 2, 2, 11, 14, 15, 16, 23, 23, 36, 36, 43, 45, 52, 53, 57, 59, 69
	oV 39, 45
	ZN 6, 10, 11, 17, 20, 44, 47, 63, 76a
	ZN 15, 19b, 19b, 19b, 19b, 52, 74
	oV 1, 1, 18, 25, 32, 33, 36
	oV 2

APPENDIX 2














































Alligator









































				
oV 1	oV 1	oV 2	oV 3	oV 3
				
oV 4	oV 10	oV 13	oV 13	oV 13
				
oV 13	oV 13	oV 14	oV 18	oV 25
				
oV 25	oV 26	oV 27	oV 27	oV 28
				
oV 28	oV 29	oV 32	oV 32	oV 32
				
oV 32	oV 34	oV 35	oV 35	oV 36
				
oV 36	oV 37	oV 39	oV 39	oV 39






































				
oV 40	oV 40	oV 40	oV 41	oV 41
				
oV 41	oV 41	oV 41	oV 43	oV 43
				
oV 43	oV 44	oV 44	oV 44	oV 45
				
oV 45	oV 46	oV 47	oV 49	oV 49
				
oV 49	oV 51	oV 51	ZN 1	ZN 1
				
ZN 1	ZN 1	ZN 2	ZN 3	ZN 4
				
ZN 4	ZN 4	ZN 4	ZN 5	ZN 6
				
ZN 8	ZN 8	ZN 8	ZN 9	ZN 10

				
ZN 40	ZN 42	ZN 46	ZN 47	ZN 50
				
ZN 52	ZN 53	ZN 53	ZN 54	ZN 58
				
ZN 58	ZN 62	ZN 62	ZN 64	ZN 66
				
ZN 70	ZN 76a	ZN 71		



































Wind

				
oV 2	oV 3	oV 10	oV 10	oV 14
				
oV 16	oV 23	oV 24	oV 24	oV 25
				
oV 25	oV 25	oV 26	oV 27	oV 28
				
oV 28	oV 28	oV 29	oV 29	oV 30
				
oV 30	oV 31	oV 31	oV 33	oV 34
				
oV 35	oV 35	oV 35	oV 35	oV 35
				
oV 36	oV 36	oV 36	oV 37	oV 39
				
oV 42	oV 43	oV 43	oV 43	oV 46
				
oV 46	oV 46	oV 47	oV 47	oV 48

































				
oV 49	oV 51	oV 51	oV 51	oV 51
				
ZN 1	ZN 1	ZN 1	ZN 2	ZN 2
				
ZN 3	ZN 3	ZN 3	ZN 3	ZN 3
				
ZN 4	ZN 4	ZN 4	ZN 5	ZN 5
				
ZN 5	ZN 7	ZN 8	ZN 11	ZN 11
				
ZN 11	ZN 12	ZN 12	ZN 15	ZN 15
				
ZN 16	ZN 16	ZN 16	ZN 18	ZN 18
				
ZN 18	ZN 18	ZN 19a	ZN 19a	ZN 20


























				
ZN 19b	ZN 19b	ZN 19b	ZN 20	ZN 20
				
ZN 21	ZN 21	ZN 21	ZN 21	ZN 22
				
ZN 23	ZN 27	ZN 28	ZN 28	ZN 29
				
ZN 29	ZN 33	ZN 36	ZN 38	ZN 41
				
ZN 41	ZN 46	ZN 46	ZN 47	ZN 49
				
ZN 52	ZN 53	ZN 57	ZN 57	ZN 62
				
ZN 61	ZN 65	ZN 65	ZN 68	ZN 76b
				
ZN 83	ZN 84			

House
























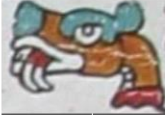
















				
oV 12	oV 13	oV 14	oV 36	oV 36
				
oV 39	ZN 6	ZN 7	ZN 7	ZN 7
				
ZN 7	ZN 13	ZN 13	ZN 18	ZN 19b
				
ZN 20	ZN 20	ZN 21	ZN 22	ZN 22
				
ZN 22	ZN 23	ZN 23	ZN 27	ZN 29
				
ZN 31	ZN 31	ZN 31	ZN 32	ZN 34
				
ZN 47	ZN 57	ZN 56	ZN 61	ZN 68
				
ZN 84				












































Lizard

			
oV 1	oV 3	oV 3	oV 15
			
oV 19	oV 21	oV 22	oV 24
			
oV 24	oV 24	oV 29	oV 33
			
oV 37	oV 40	oV 40	oV 40
			
oV 41	oV 44	oV 45	oV 45
			
oV 50	ZN 1	ZN 1	ZN 2
			
ZN 5	ZN 5	ZN 8	ZN 8
			
ZN 10	ZN 10	ZN 12	ZN 12

			
ZN 13	ZN 13	ZN 19a	ZN 20
			
ZN 20	ZN 22	ZN 23	ZN 23
			
ZN 23	ZN 24	ZN 26	ZN 40
			
ZN 40	ZN 42	ZN 44	ZN 45
			
ZN 49	ZN 56	ZN 59	ZN 59
			
ZN 62	ZN 63	ZN 66	ZN 68
			
ZN 73			

Serpent

				
oV 2	oV 2	oV 3	oV 5	oV 5
				
oV 5	oV 5	oV 21	oV 22	oV 26
				
oV 26	oV 27	oV 28	oV 30	oV 30
				
oV 33	oV 33	oV 33	oV 37	oV 38
				
oV 41	oV 43	oV 46	oV 49	oV 51
				
oV 51	ZN 3	ZN 3	ZN 3	ZN 4
				
ZN 4	ZN 5	ZN 6	ZN 9	ZN 10
				
ZN 11	ZN 12	ZN 14	ZN 18	ZN 21

				
ZN 22	ZN 22	ZN 23	ZN 25	ZN 26
				
ZN 26	ZN 27	ZN 29	ZN 33	ZN 35
				
ZN 36	ZN 36	ZN 37	ZN 37	ZN 37
				
ZN 37	ZN 39	ZN 40	ZN 41	ZN 44
				
ZN 44	ZN 45	ZN 45	ZN 49	ZN 50
				
ZN 52	ZN 52	ZN 53	ZN 54	ZN 55
				
ZN 55	ZN 64	ZN 65	ZN 66	ZN 67
				
ZN 68	ZN 70	ZN 71	ZN 75	ZN 77
				
ZN 77	ZN 77	ZN 83		

Death

				
oV 10	oV 21	oV 24	oV 25	oV 28
				
oV 32	oV 32	oV 37	oV 43	ZN 4
				
ZN 5	ZN 12	ZN 13	ZN 13	ZN 14
				
ZN 14	ZN 16	ZN 17	ZN 17	ZN 18
				
ZN 19a	ZN 19a	ZN 19b	ZN 21	ZN 22
				
ZN 24	ZN 27	ZN 28	ZN 29	ZN 31
				
ZN 38	ZN 41	ZN 48	ZN 52	ZN 55
				
ZN 65	ZN 65	ZN 68	ZN 75	ZN 76a



ZN 76a



ZN 76b



ZN 76b





























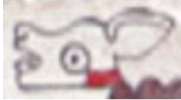



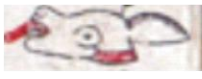
















ZN 79









ZN 81

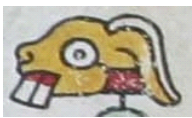
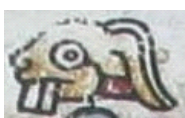
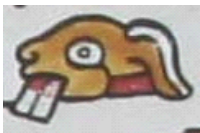

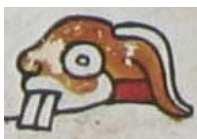
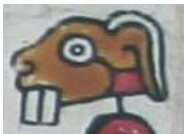

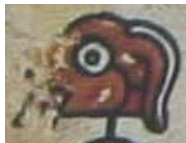



















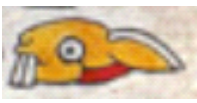






Deer

				
oV 2	oV 2	oV 3	oV 4	oV 12
				
oV 22	oV 23	oV 25	oV 26	oV 27
				
oV 28	oV 28	oV 29	oV 30	oV 32
				
oV 32	oV 32	oV 35	oV 36	oV 38
				
oV 38	oV 42	oV 42	oV 43	oV 45
				
oV 45	oV 51	oV 51	ZN 3	ZN 4
				
ZN 5	ZN 6	ZN 6	ZN 7	ZN 8
				
ZN 9	ZN 16	ZN 17	ZN 23	ZN 24

				
ZN 26	ZN 26	ZN 26	ZN 27	ZN 29
				
ZN 30	ZN 32	ZN 37	ZN 41	ZN 42
				
ZN 43	ZN 43	ZN 44	ZN 44	ZN 44
				
ZN 45	ZN 45	ZN 48	ZN 49	ZN 50
				
ZN 50	ZN 51	ZN 51	ZN 51	ZN 52
				
ZN 52	ZN 52	ZN 53	ZN 53	ZN 54
				
ZN 65	ZN 65	ZN 67	ZN 67	ZN 68
				
ZN 69	ZN 70	ZN 70	ZN 72	ZN 73
				
ZN 74	ZN 75	ZN 76a	ZN 77	ZN 77

				
ZN 79	ZN 79	ZN 78	ZN 82	ZN 83
				
ZN 83				


Rabbit



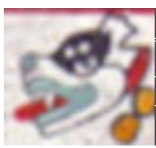

				
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oV 42	oV 42	oV 43	oV 45	oV 46
				
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ZN 30	ZN 30	ZN 30	ZN 31	ZN 31
				
ZN 32	ZN 33	ZN 33	ZN 47	ZN 48
				
ZN 53	ZN 57	ZN 66	ZN 67	ZN 67
				
ZN 69	ZN 76b	ZN 77	ZN 80	

Water

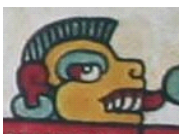
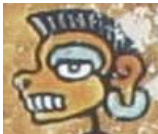





































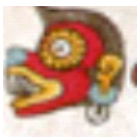


				
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ZN 24	ZN 24	ZN 25	ZN 25	ZN 26
				
ZN 26	ZN 28	ZN 28	ZN 28	ZN 30
				
ZN 32	ZN 32	ZN 32	ZN 34	ZN 35
				
ZN 35	ZN 42	ZN 42	ZN 44	ZN 44
				
ZN 53	ZN 58	ZN 66	ZN 69	ZN 72

Dog









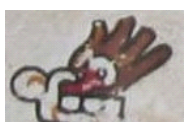

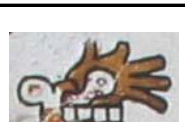
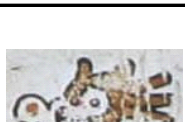
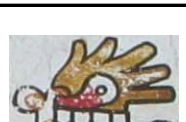
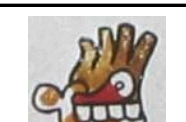



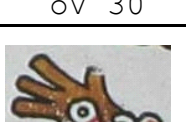

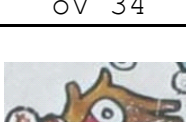




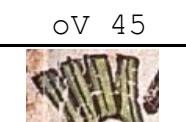

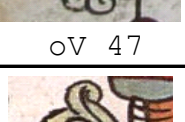
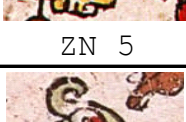
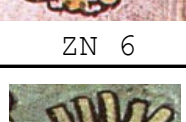
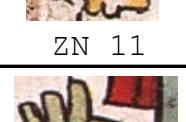
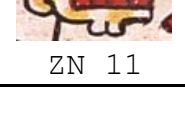
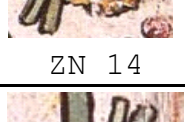
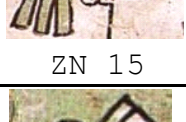

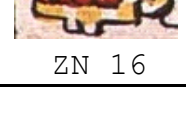
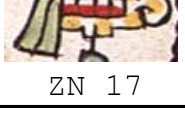
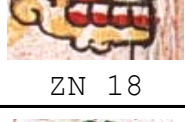



				
oV 4	oV 10	oV 10	oV 18	oV 21
				
oV 22	oV 22	oV 22	oV 23	oV 25
				
oV 25	oV 28	oV 30	oV 30	oV 33
				
oV 37	oV 37	oV 39	oV 42	oV 47
				
oV 49	oV 49	ZN 3	ZN 3	ZN 3
				
ZN 3	ZN 4	ZN 5	ZN 6	ZN 11
				
ZN 11	ZN 18	ZN 18	ZN 19a	ZN 20
				
ZN 20	ZN 22	ZN 25	ZN 25	ZN 26






















				
ZN 27	ZN 27	ZN 28	ZN 28	ZN 31
				
ZN 31	ZN 32	ZN 34	ZN 48	ZN 57
				
ZN 62	ZN 64	ZN 72	ZN 72	ZN 74
				
ZN 78	ZN 83			

Monkey















































					
oV 8	oV 10	oV 14	oV 15	oV 16	oV 36
					
oV 36	oV 36	oV 36	oV 39	ZN 1	ZN 3
					
ZN 4	ZN 4	ZN 5	ZN 6	ZN 8	ZN 10
					
ZN 11	ZN 11	ZN 11	ZN 20	ZN 23	ZN 24
					
ZN 26	ZN 30	ZN 34	ZN 38	ZN 43	ZN 44
					
ZN 55	ZN 58	ZN 64	ZN 67	ZN 68	ZN 72
					
ZN 72	ZN 73	ZN 74	ZN 74	ZN 79	ZN 83




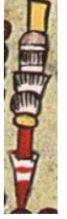

































Grass

				
oV 1	oV 1	oV 4	oV 15	oV 16
				
oV 18	oV 23	oV 24	oV 25	oV 27
				
oV 27	oV 27	oV 30	oV 33	oV 34
				
oV 38	oV 42	oV 44	oV 44	oV 45
				
oV 46	oV 47	ZN 5	ZN 6	ZN 11
				
ZN 11	ZN 14	ZN 15	ZN 16	ZN 16
				
ZN 17	ZN 18	ZN 19a	ZN 19a	ZN 20
				
ZN 20	ZN 20	ZN 22	ZN 23	ZN 23

				
ZN 23	ZN 23	ZN 24	ZN 24	ZN 27
				
ZN 30	ZN 34	ZN 40	ZN 41	ZN 41
				
ZN 48	ZN 54	ZN 55	ZN 56	ZN 58
				
ZN 59	ZN 60	ZN 71	ZN 72	ZN 74
				
ZN 76a	ZN 79	ZN 79		













Reed

							
oV 1	oV 2	oV 3	oV 7	oV 7	oV 24	oV 28	oV 29
							
oV 33	oV 35	oV 38	oV 38	oV 39	oV 39	oV 39	oV 40
							
oV 40	oV 40	oV 40	oV 41	oV 41	oV 42	oV 43	oV 43
							
oV 44	oV 44	oV 45	oV 46	oV 46	oV 47	oV 47	oV 48
							
oV 50	ZN 1	ZN 5	ZN 5		ZN 7	ZN 9	ZN 9
							
ZN 11	ZN 11		ZN 14	ZN 14	ZN 14	ZN 15	ZN 15











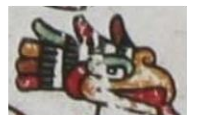










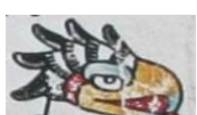


















							
ZN 16	ZN 17	ZN 17		ZN 19b	ZN 19b	ZN 21	ZN 23
							
ZN 23	ZN 24	ZN 24	ZN 30	ZN 32	ZN 32	ZN 33	ZN 34
							
ZN 38	ZN 39	ZN 40	ZN 41	ZN 41	ZN 44	ZN 46	ZN 51
							
ZN 56	ZN 57	ZN 60	ZN 60	ZN 62	ZN 63	ZN 63	ZN 64
							
ZN 64	ZN 64	ZN 66	ZN 66	ZN 67	ZN 69		

Jaguar

				
oV 3	oV 16	oV 16	oV 16	oV 16
				
oV 21	oV 22	oV 28	oV 29	oV 36
				
oV 36	oV 37	oV 40	oV 41	oV 41
				
ZN 1	ZN 2	ZN 4	ZN 7	ZN 9
				
ZN 11	ZN 12	ZN 12	ZN 13	ZN 14
				
ZN 20	ZN 23	ZN 23	ZN 23	ZN 25
				
ZN 31	ZN 35	ZN 40	ZN 48	ZN 52
				
ZN 53	ZN 55	ZN 58	ZN 61	ZN 63

				
ZN 63	ZN 66	ZN 70	ZN 71	ZN 72
				
ZN 74	ZN 76b	ZN 77	ZN 79	ZN 79
				
ZN 80	ZN 82			

Eagle

				
oV 1	oV 4	oV 10	oV 10	oV 16
				
oV 17	oV 17	oV 21	oV 23	oV 24
				
oV 25	oV 28	oV 32	oV 33	oV 33
				
oV 34	oV 34	oV 34	oV 34	oV 37
				
oV 37	oV 37	oV 37	oV 42	oV 44
				
oV 44	oV 47	oV 50	oV 50	ZN 1
				
ZN 3	ZN 5	ZN 6	ZN 6	ZN 6
				
ZN 7	ZN 8	ZN 8	ZN 11	ZN 12

				
ZN 13	ZN 13	ZN 15	ZN 16	ZN 16
				
ZN 18	ZN 18	ZN 18	ZN 19a	ZN 19b
				
ZN 19b	ZN 23	ZN 23	ZN 23	ZN 26
				
ZN 26	ZN 27	ZN 28	ZN 28	ZN 29
				
ZN 29	ZN 30	ZN 31	ZN 32	ZN 41
				
ZN 42	ZN 42	ZN 47	ZN 59	ZN 60
				
ZN 61	ZN 66	ZN 71	ZN 71	ZN 72
				
ZN 73	ZN 76a	ZN 80		




































Vulture



Motion























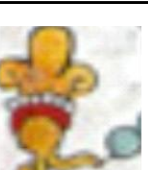








Flint

Rain

Flower

 oV 1	 oV 1	 oV 2	 oV 16	 oV 18
 oV 18	 oV 18	 oV 23	 oV 24	 oV 25
 oV 25	 oV 27	 oV 27	 oV 27	 oV 30
 oV 32	 oV 32	 oV 32	 oV 33	 oV 35
 oV 35	 oV 35	 oV 36	 oV 36	 oV 36
 oV 36	 oV 39	 oV 39	 oV 40	 oV 40
 oV 41	 oV 45	 ZN 1	 ZN 2	 ZN 2

				
ZN 4	ZN 4	ZN 4	ZN 4	ZN 5
				
ZN 5	ZN 6	ZN 10	ZN 11	ZN 11
				
ZN 12	ZN 14	ZN 15	ZN 15	ZN 16
				
ZN 16	ZN 16	ZN 17	ZN 17	ZN 17
				
ZN 18	ZN 19a	ZN 19b	ZN 19b	ZN 19b
				
ZN 19b	ZN 20	ZN 22	ZN 23	ZN 23
				
ZN 23	ZN 26	ZN 27	ZN 29	ZN 32

				
ZN 33	ZN 36	ZN 36	ZN 43	ZN 44
				
ZN 45	ZN 46	ZN 47	ZN 47	ZN 48
				
ZN 49	ZN 52	ZN 52	ZN 53	ZN 57
				
ZN 59	ZN 62	ZN 63	ZN 66	ZN 67
				
ZN 67	ZN 68	ZN 69	ZN 73	ZN 74
				
ZN 76a	ZN 76a	ZN 76b	ZN 76b	ZN 76b
				
ZN 81				

APPENDIX 3

Glossary of Terms

Buccal mask: a beaklike mask. The exact origins are unclear, but a sacred cave in the Mixteca includes Classic Period (AD300 - 750) Nuiñe-style pictographs of a figure wearing a buccal mask with billowing swirls emerging. The mask in the depiction is diagnostic of the type worn by the Zapotec rain and lightning deity, Cocijo, but the emerging wind is more closely related to the Mixtec and Aztec wind deities (Lincón Mautner 2005).

Codex Vindobonensis: abbreviated name for the Mixtec manuscript called *Codex Vindobonensis-Mexicanus I*. In the past, this text was called *Codex Vienna* in reference to the document's physical location at the Austria National Library. The name Vindobonensis is an alternate name for Vienna.

Cult: a node of ritualistic intensification found within an existing religion

Lienzo: Spanish term meaning "canvas." *Lienzos* are loosely woven cotton sheets that are painted with Mixtec writing. During the Colonial Period (AD1521 - 1810), the Spanish commissioned these documents to convey

genealogical and historical events in relation to Mixtec geography.

Occultation: a method of conveyance, analogous with the use of mnemonic devices, for recalling unstated information. This thesis is based on the hypothesis that the Mixtec sacred say signs possess occulted data.

Toponym: a pictographic sign that identifies a place. The four primary toponyms employed in Mixtec writings depict a hill or mountain, a plain, a town or village, and a lake or river.

War from Heaven: an event, recorded twice in the opening pages of the *Codex Zouche-Nuttall* obverse, in which people called Stone Men and Striped Men descend from the sky and battle the Mixtecs. The Mixtecs defeat both of these groups.

Xipe Totec: the Aztec name for the central Mesoamerican flaying deity, who is also associated with sacrifice, spring time, and regeneration. The most well-known--and infamous--Xipe ritual involves a priest wearing the flayed skin of a sacrifice victim. This activity is visible for the Aztec in Figure 5.1 (page 60) and Mixtec in Figure 5.2 (page 60).

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