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Making An Impression: A Formal Analysis of the Contextual and Iconographic Characteristics of Ancient Mexican Ceramic Stamps

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MAKING AN IMPRESSION: A FORMAL ANALYSIS OF
THE CONTEXTUAL AND ICONOGRAPHIC CHARACTERISTICS
OF ANCIENT MEXICAN CERAMIC STAMPS

by

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A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Arts
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ABSTRACT

Ceramic stamps are a rare, yet widely distributed, artifact class within ancient Mexico. However, there has only been limited scholarly research on these objects and much current research is minimally supported. Depicting a wide range of iconography, including metaphysical, floral, and faunal designs, the function and meaning of these stamps, also known as *estampias*, *pintaderas*, and *sellos*, in ancient Mexican life remain an archaeological mystery. This paper examines the contextual, chronological, and iconographic characteristics of ancient Mexican ceramic stamps as well as the distributional trends of those characteristics. This study is comprised of 83 stamps of varying design that date to between 1600 B.C.E. and 1520 C.E.: 19 found by the Rio Verde Project in Southern Oaxaca, Mexico, 5 found by Michael Coe in San Lorenzo, and 59 central Mexican stamps with credible, detailed provenience residing in the collection of the American Museum of Natural History and Robert S. Peabody Museum of Archaeology. Examined through the lens of culture history, processual, and postprocessual theory, comparative statistical analysis was conducted to assist the identification of significant trends. These analyses have revealed that stamp use shifted from mainly public to household spaces over time and that stamps predominantly depict nature and metaphysical themed motifs. I have also found that stamps were likely multipurpose artifacts whose use transcended social status. This research greatly expands on the limited literature about Mesoamerican ceramic stamps and provides valuable insight into ancient Mexican household, identity, and possibly religious, practices.

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CHAPTER ONE: INTRODUCTION

The stamps and seals of the Old World are well known and have been extensively studied, providing valuable information about the cultures that produced them (Porada 1993; Yalcin 2016). However, stamps and seals do not belong to the Old World alone. Far less thoroughly studied are the ceramic stamps and seals of New World Mesoamerica. Also known as *stamp-seals*, *estampias*, *sellos*, and *pintaderas*, these stamps came in a wide variety of shapes, sizes, and designs (Enciso 1953:vi; Field 1967:6,46). The overwhelming majority of these stamps are ceramic, composed of local clay with a sand and/or shell temper that was likely fired in a wood-burning kiln (Enciso 1953:iv).

Archaeological evidence suggests that they were originally crafted by hand, and then later produced by mold as their popularity and trade frequency across the regions grew (Evans 2013; Field 1967; Enciso 1953). The fact that they were indeed popular for thousands of years is made evident by the hundreds of ceramic stamps found to date. For his work *Design Motifs of Ancient Mexico*, Jorge Enciso (1953) took rubbings of hundreds of stamps from various private and museum collections. It should be noted however, that my attempts to track down this collection and substantiate Enciso's reported sample size and the legitimacy of his artifacts have not been successful. In addition to ceramic stamps, there have been a few lithic stamps found in Mesoamerica as well as a copper stamp found in Patzcuaro, and a worked bone stamp found in Xochimilco (Enciso 1953:iv). However, these non-ceramic artifacts are outliers; of interest here is the majority and thus, ceramic stamps.

These artifacts may be rare and few in number compared to other Mesoamerican artifacts, but a lack of serious academic study has left important gaps in the ancient Mexican archaeological record. To date, very little credible interpretation has been presented on how and why stamps were used over time.

Throughout this thesis, I will address this weakness in academic knowledge by focusing on the following questions regarding stamps from the Rio Verde Valley in Oaxaca, Mexico and San Lorenzo, as well as ancient Mexican stamps from the American Museum of Natural History and the Robert S. Peabody Museum of Archaeology. First, what are the chronological, spatial, and design characteristics of ancient Mexican stamps? Second, are there any trends or patterns in the distribution of these stamp characteristics over time? Third, do these findings align with what has been previously published about stamp characteristics and stamping practices?

By exploring these aspects of Mexican stamps, I will be benefitting the anthropological community by expanding currently available information on a rare, yet widely found, artifact class. This will begin the process of closing significant gaps in the archaeological record. The results of my findings will offer a new and legitimate starting point for determining what the function of ceramic stamps was in ancient Mexico as well as what meaning these stamps held for their users. In turn, this and future investigations into Mesoamerican stamps will serve to shed light on the daily lives and possibly the religious and decorative identity practices of ancient Mexican households.

In approaching my research, I have several expectations and hypotheses. These hypotheses are:

- Ancient Mexican stamps became more common over time in all regions of Mexico.

- Stamps were used by people of both elite and non-elite social statuses
- Stamps were used mainly in public and ritual areas
- Stamps likely functioned to decorate Amate paper and not the human body
- Stamps depict primarily religious, or metaphysical, motifs
- Stamp motifs likely held religious meaning to their users

In terms of thesis organization, I will first review academic literature from various disciplines related to the topic of Mesoamerican stamp characteristics, hypotheses on function, and hypotheses on meaning to provide the context for my own research among other academic writings. Following this I will provide a survey of the materials and methods I used for my research. Next, I will present the results of my data analysis and the findings of my research on Mexican stamps within the theoretical context of culture history. After, I will discuss my results and possible interpretations of my findings. Finally, I will synthesize the outcomes of my research, suggest some avenues for future research, and provide concluding analysis of my study.

CHAPTER TWO: LITERATURE REVIEW

In this chapter I will review the current anthropological literature on Mesoamerican ceramic stamps. The literature reviewed here consists of studies that concentrate specifically on stamps as well as works that mention stamps and contain interpretations of their function and meaning.

There were several different forms of ceramic stamps manufactured in ancient Mexico. These included flat, convex, and concave forms that all sported some kind of gripping handle on the back. These stamps were held by their handle and then pressed onto a surface (Figure 1).

In addition, cylinder and roller stamps similar in shape to those found in Mesopotamia were produced (Figures 2 and 3). These cylinder stamps could be rolled against a surface using either a stick threaded through a hole in the center of the stamps, rolled like a baking pin by gripping a knob that protruded from each end, or by inserting the fingertips into a depression on either end of the stamp and rolling with the fingers (1953:v). Both roller and flat stamps were produced in a wide range of sizes, from smaller than a postage stamp to several centimeters in length (Enciso 1953:vi; Field 1967:6).



Figure 1: Flat Stamps With Handles: Formative Period Cerro de la Virgen. and Postclassic Period Rio Viejo.

Photo Credit: Elizabeth R. Peabody

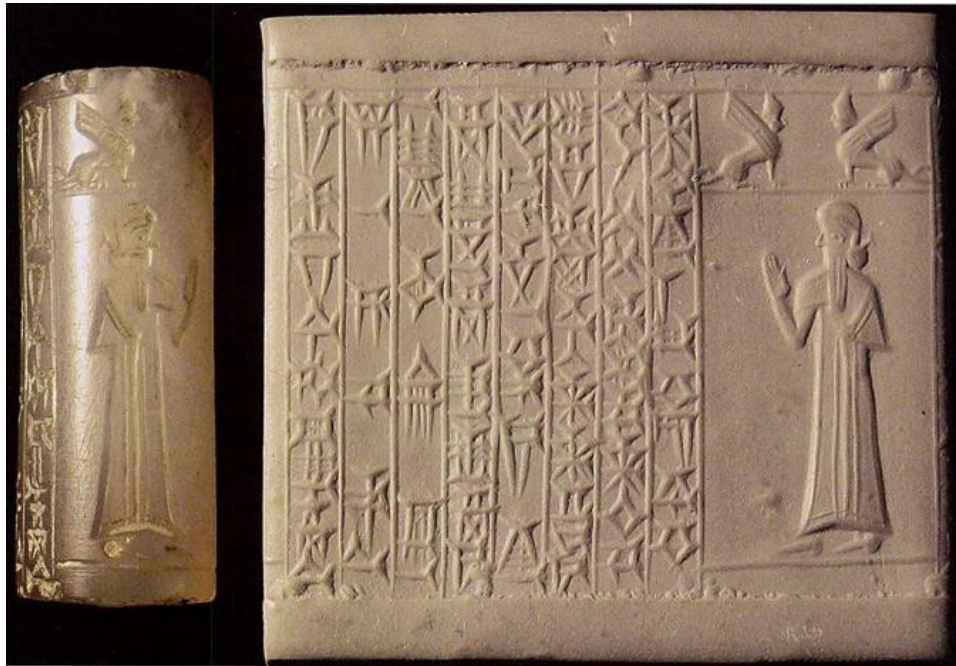


Figure 2: Babylonian roller stamp

Source: Yancin 2016: 122



Figure 3: Roller stamp from Early Postclassic Rio Viejo

Photo Source: Elizabeth R. Peabody

Perhaps the most fascinating aspect of ceramic stamps is the incredible variation in their design. Enciso (1953) focused primarily on the design variation in his *Design Motifs of Ancient Mexico*, which was the first comprehensive, published study of Mexican stamps. As was common for the time, Enciso was more concerned with creating a classification system for stamp designs rather than producing an in-depth exploration of stamp function and meaning. Enciso at least was considerate enough to explicitly state this in the introduction of his book. Enciso (1953:42-153) took rubbings of 766 stamps from various museum and private collections, and classified them into four main categories, each containing several sub-categories.

1. Geometric Motifs

- Zigzags, triangles, spirals, stepped-fret patterns, and crosses (Figure 4).

2. Natural Forms

- Flora: flowers and maize
- Fauna: animals including butterflies, snakes, alligators, jaguars, monkeys, birds, and scorpions (Figures 5 & 6).
- Fantastic animals: animals that do not occur in nature

3. Human Body

- Human figures, hands, skulls, and deity masks

4. Artificial Forms

- Architectural images, emblems, chronological signs, braid designs

I will use these categories as a springboard for my own classification system, which will be discussed in CHAPTER THREE: MATERIALS AND METHDOLOGY.



Figure 4: Early Postclassic stamp from Rio Viejo with Geometric concentric circle motif

Photo Source: Elizabeth R. Peabody



Figure 5: Late Terminal Formative period stamp from Rio Viejo with scorpion motif

Photo Source: Elizabeth R. Peabody



Figure 6: Late Postclassic stamp from Chiconautla with monkey motif

Photo Source: Catalogue No. 30.2/699, Courtesy of the Division of Anthropology, American Museum of Natural History.

Throughout the course of research into stamps archaeologists have offered several different interpretations of stamp function and practices. To date, there are four main hypotheses as to how stamps were used.

Body Stamp Hypothesis

The most commonly proposed hypothesis is that stamps were dipped in paint or ink, and then used to temporarily decorate the body (Blomster 2014:7; Evans 2013:156,219; Houston et al. 2006:24; Markman and Markman 1989:79; Enciso 1953:v). This hypothesis is supported primarily in theory rather than any iconographic evidence in the archaeological record. In fact,

the lack of iconographic evidence depicting stamped skin is this hypothesis' primary issue since skin decoration such as body painting, piercing, and clothing were all meticulously depicted by ancient Mexicans on media such as stelae, codices, figurines, and murals.

As Houston, Stuart, and Taube (2006:15,19) recognized, skin markings were incredibly important to ancient Mesoamerican identity because it was likely believed that the decorating of the body literally transformed the person into what the symbols represented. In fact, Monaghan (2000:29) points out that there was a "focus on surfaces" throughout Mesoamerica as a result of the belief that "the sacred is infinite and formless" and surfaces give shape to that formlessness. This means that it is the surface of an object or person that makes it what it is, be it the skin of a god or the bark of a tree or a mask on a figure; further, all surfaces have the power to alter identity as well (Monaghan 2000).

Houston, Stuart, and Taube (2006:15) suggest that ancient Mesoamericans believed that designs on the skin alter an individual's identity. If their proposal is correct, then this belief could have created a distinct and important difference between permanent skin markings such as tattoos, and temporary markings like those that would be made by stamps. The importance of the distinction lies in the likelihood that ancient Mesoamericans believed that identities were fluid. Not only was identity constantly transforming, an individual could also have many different identities simultaneously (Blomster 2014; Lytle and Reilly 2014; Houston, Stuart, and Taube 2006; Markman and Markman 1989). Given these cultural beliefs, stamps could have been extremely useful for performing one's highly fluid identity/ies.

As previously stated, there is very little legitimate archaeological evidence to support the idea of body stamping practices. In his exploration on the transformative properties of costume

and adornment in Early Formative Period Oaxaca and their importance to ancient Oaxacan identity, Blomster (2014:103) refers to a roller stamp found at Etlatongo, still coated in a red dye, that could have been rolled on the skin, or any other stable surface, to product a tattoo-like effect. Jorge Enciso (1953:viii) claimed to have found a depiction of a woman with stamped images on her arms (Figure 7). However, the Codex he claims to have found the image in is unknown to contemporary academia and its legitimacy is highly unlikely.



Figure 7: Woman with possible stamped designs from the ‘Codex Chalchihuitzan Vazquez’

Source: Enciso 1953:viii.

Thus, the Body Stamp hypothesis may sound persuasive at first glance but the iconographical evidence for it is scarce at best. It also cannot be proven thus far that the

Etlatongo roller stamp was used on the body or another surface. Frederick Field (1967:12), who published an early, in-depth, study on 784 Mesoamerican stamps in 1967, found no evidence of body stamping on ancient Mexican clay effigy figures that display other decorative artifacts and components such as jewelry and costumes. No definitive evidence supporting body stamping practices besides the Etlatongo roller stamp has been found in any Codex, nor in any other Mexican iconographic analysis.

Textile Stamp Hypothesis

The second hypothesis as to the function of ancient Mexican stamps is that they were used to stamp textiles for decorative purposes (Evans 2006:156,335; Houston, Stuart, and Taube 2006:24; King 1979:271; Enciso 1953:5; Halperin 2008:112). As there are innumerable pieces of evidence that ancient Mesoamericans were highly skilled at weaving and embroidery, it can be assumed that stamping would have occurred if either a design were not possible to weave or sew, or for use where an image was required, but it was not necessary to hand-craft the image. Alternatively, textile stamping would have been a useful practice if the designs were meant to be temporary. However, there is even less evidence of this in the archaeological record than there is for body stamping, making this hypothesis highly controversial.

It is an unfortunate fact that the environmental conditions of Central America are incredibly poor for textile preservation. Thus, almost no clothing remains to study for evidence of textile stamping. It has been considered that iconographic analysis could again aid in supporting this hypothesis. There are many depictions of elaborately designed ancient Mesoamerican clothing on statues, murals, and stelae, but it is extraordinarily challenging to

determine if the depicted designs were originally hand-painted, woven, or stamped. Field outright states that "there is no proof, circumstantial or otherwise, that sellos were used to stamp fabrics" (1967:20).

Decades later, Houston, Stuart, and Taube (2006), as well as Evans (2006) support the Textile Stamping hypothesis, but the evidence is still meager. Both of these works cite Enciso as their source, but while Enciso (1953:v) does indeed state that "cloth [was]...printed by applying a previously inked stamp" he also offers no actual evidence or reference for this. The most solid archaeological support to be found for cloth stamping is in a study on Oaxacan textiles by Mexican archaeologist Mary King (1979:271) which mentions that while no stamped textiles had been found, there are great similarities between some of the geometric designs found on stamps and ancient cloth. Overall, the Textile Stamp hypothesis may be appealing to scholars interested in Mesoamerican costume, and has been stated as fact, but it is no more supported by archaeological evidence than any other hypothesis.

Pottery Stamp Hypothesis

The third hypothesis is that ancient Mexican ceramic stamps were used to decorate pottery when the clay was still pliable. There is some archaeological evidence to support this, but it's not conclusive. Enciso (1953:v) is one of the greatest supporters of this hypothesis and is able to offer one artifact as evidence. This artifact is a ceramic bowl from San Miguel Amantla, a settlement just north of Mexico City, which is decorated with an uneven line of bordered step-patterns circling its exterior middle that do appear as if they could have been made with a roller stamp (Enciso 1953:viii).

Fields (1967:20-21) also supports the idea of Pottery Stamping, claiming to have two artifacts from Veracruz that could have been stamped: a flute decorated with spirals and a flare-rim jar decorated with 12 flower-like patterns. However, these three ceramic artifacts are the only ones that he presents as evidence of pottery stamping. The final remaining support for the pottery stamping hypothesis was presented by MacNeish et al. (1970: 188-190). During his excavations of the Tehuacan Valley, MacNeish discovered 732 molcajete bottom fragments that had clearly been stamped (Figure 8 and 9). Moreover, he found a fragment of a stamp whose motif was identical to one of the stamped molcajete shards (Figure 10). Given this evidence, and our knowledge of Mexico's history of extensive ceramic production, it can thus be tentatively said that while the stamping of pottery did occur, "pottery stamping was neither a principal nor an important use of sellos" and such artifacts are relatively rare (Field 1967:21).



Figure 8: Stamped *molcajete* bowl bottoms from the Tehuacan Valley

Source: MacNeish 1970:188



Figure 9: Stamped *molcajete* bowl bottoms from the Tehuacan Valley

Photo Source: MacNeish 1970:190

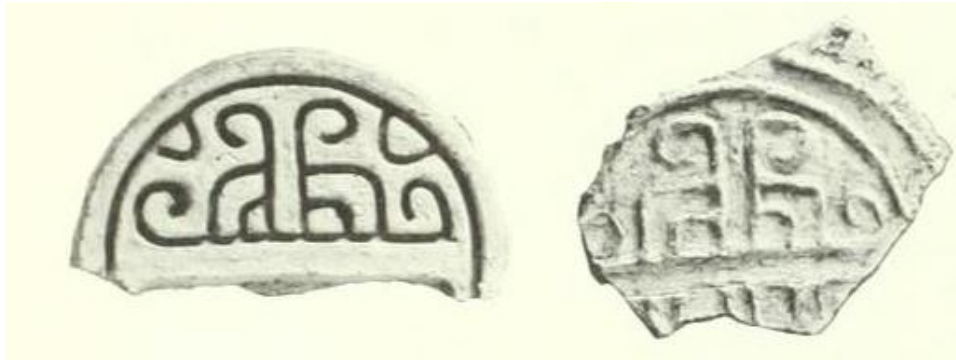


Figure 10: Ceramic stamp and stamped molcajete fragment with matching motifs from the Tehuacan Valley

Photo Source: MacNeish 1970:190

Paper Stamp Hypothesis

The final hypothesis as to the function of ancient Mexican ceramic stamps is that they were used to decorate paper (Enciso 1953:v; Séjourné 1966:206; Field 1967:46-47; Walton 1984:15). Like the previous hypotheses, there is little archaeological evidence to support it; but in an interesting twist, the lack of material remains is actually what makes it one of the most plausible hypotheses presented thus far. As previously stated, the environmental conditions in Mesoamerica are not ideal for the preservation of delicate materials, particularly textiles and paper. Thus, the nearly complete lack of evidence for any kind of stamping practice in the archaeological record could be explained by the high improbability of textile or paper preservation in the region.

Several scholars support the paper stamp hypothesis, including Enciso (1953) and Field (1967). The most thorough investigation into its validity was done by French archaeologist Laurette Séjourné in 1966. Séjourné analyzed stamps recovered from Teotihuacan refuse dumps and investigated whether the Teotihuacan samples supported body, textile, pottery, or paper

stamping. Overall she determined that "sellos served in ancient Mexico to stamp or to put a particular mark on documents of paper" (Séjourné 1966:209). Her conclusion is based largely on the absence of data and linguistic analysis. After inspecting multitudes of Teotihuacan artifacts, Séjourné (1966:204) found that body painting and costume decoration such as weaving and embroidery were distinctly represented on frescoes, sculptures, and ceramics, but she found no depictions of body or textile *stamping*. Nor could she find any pottery marked with stamp made designs (Séjourné 1966:206). However, she did discover two of the words Alonso de Molina designated for stamps at the time of the Spanish Conquest in his 1585 Nahuatl-English Dictionary were "*tecuilhuaztli o nenecuilhuatzli*" (1966:206) and "*amatlacuilolmachiyotiani*" (1966:209). Both of these terms suggest paper marking as the main function for stamps since *cuilhuia* means "to write or to paint something for another or to another"; *amatl* is the Nahuatl word for paper; *tlacuilo* means "notary [or] painter"; and *machiyotiani* translates as "model, sign, [or] mark" (Séjourné 1966:206, 209)

An interesting piece of supporting evidence for paper stamping could be tied to ancient Mexican religious rituals. Paper held high religious importance in Mesoamerica and was frequently used in ritual (Monaghan 2000; Sandstrom and Sandstrom 1986; Walton 1984). For example, the Otomi of San Pablito in Central Mexico create paper figurines by cutting bark paper (just like paper dolls) called *muñecos*, which are then used in many rituals related to agricultural or human fertility and the thwarting of evil spirits (Sandstrom and Sandstrom 1986:259-265).

In his investigation on ancient Mesoamerican paper practices, Walton (1984:13,14) describes how low-quality paper fragments were important to the non-elite because they could

decorate them with religious and mythological images and symbols, then burn the decorated scraps as ceremonial offerings to the gods. Discussing Mesoamerican stamping in particular, he posits that "since painted images of gods on paper were used to ward off evil, it seems likely that many of these images were produced with stamps for the mass market" (Walton 1984:15; Enciso 1953). It is worth noting here that throughout his analysis of the enormous variety of stamp design, Field (1967:47) indeed determined that most stamps depict religious, elemental, and mythological symbols, which supports the idea of stamps being related to religious and ritual practices. If ancient Mexican stamps were used for ritually stamping paper that was then ceremonially burned, it could explain the almost complete lack of archaeological evidence of stamping practices.

Whatever their ultimate function, stamps belonging to all four of Enciso's design categories (Geometric, Natural Forms, Human Body, and Artificial Forms) have been found across the New World, including the Yucatan Peninsula, Brazil, Peru, Puerto Rico, and Florida (Field 1967:6; Enciso 1953:vi). Of particular interest to this study is the high concentration of stamps found at sites in Central and Southern Ancient Mexico such as Tlatilco, Rio Viejo, the Valley of Mexico, Teotihuacan, Tenochtitlan, Nonoalco, and Chiconauhtla (Field 1967:6; Enciso 1953:vi; MacNeish et al. 1970, Elson and Smith 2001).

As these stamps are so widely distributed, it is not surprising that they also have an extensive, if contested, chronology. It is decidedly difficult to determine when stamps first made their appearance in ancient Mexican culture. Some, like Field, insist that stamping practices began long before 1000 B.C. in the Olmec region of the Gulf of Mexico (Field 1967:6). However, based on archaeological evidence from the Mexican sites of San Lorenzo and La

Venta, it is more likely that stamps first appeared during Mexico's Early Formative period, around 1600 B.C. (Coe and Diehl 1980). Once stamping practices stretched across Mesoamerica, they continued for millennia. Based on archaeological and ethnographic evidence, it is generally accepted that the use of ceramic stamps continued until after the Spanish Conquest in the 16th Century A.D. (Field 1967:6). Since there are no Spanish accounts describing stamping practices, this assumption is primarily based on the inclusion of the two words for stamp in Molina's 1585 Nahuatl-English Dictionary.

The fact that these stamps were of some level of import to ancient Mexican societies cannot be disputed, given their long chronological and widespread use. Therefore, it is an unusual oversight of Mesoamerican scholars to have delayed conducting studies of these stamps to the point where the stamps' function and meaning are almost entirely unknown to contemporary archaeologists. At this point, the only concrete thing that can be stated about the function and meaning of stamps is that it is a highly contentious subject which must be explored far more thoroughly.

CHAPTER THREE: MATERIALS AND METHODS

General Source of Stamps

While the few existing discussions of ceramic stamps indicate their presence throughout the whole of Mesoamerica, the initial results of this investigation indicated quite clearly that the ideal regions for illuminating the spatial, temporal, and design characteristics of stamps are southern and central Mexico. This is for several reasons. Firstly, a great number of the known Mesoamerican ceramic stamps have been found there and the climate is decent for ceramic preservation. Secondly, the professional and thorough excavations conducted in those regions provide credible context data for many stamps. And thirdly, examinations of the online collections from museums around the world revealed that nearly all stamps with credible provenience currently housed in museums originate from southern and central Mexico. Thus, these are the regions to which this study has devoted its attention.

As no academic attempt to create a full accounting of all found stamps had yet been attempted, the first step of this study was to create as large a database of credible stamp artifacts as possible to submit to analysis. Creation of the database was achieved by researching excavations conducted in South and Central Mexico in the last 30 years and exploring the online collections of several museums around the world.

Dataset Development

My initial search for stamp artifacts fitting my requirements was conducted by reviewing excavations conducted in south and central Mexico in the last 30 years. Between 2000 and 2013, the Proyecto Rio Verde (PRV) excavated several sites in the Rio Verde Valley of southern coastal Oaxaca, Mexico (Joyce et al. 2014:391). During these excavations 19 ceramic stamps were discovered and their provenience carefully documented. In July of 2016 I traveled to Cuilapan in Oaxaca, Mexico, where the PRV houses their collection in order to examine these stamps. As the first researcher to analyze these artifacts in-depth, my analysis included the documentation of the stamps' provenience tags, obtaining basic measurements, and creating sketches of each artifact. In addition, I also thoroughly photographed each artifact with scale markers using a high-quality camera and stamped impressions of the stamps' motifs onto air-drying clay.

I also found mention of stamps from Coe and Diehl's 1966-1968 excavations in San Lorenzo. He documented the finding of five ceramic stamps along with sketches of the artifacts (Coe and Diehl 1980:290) . While the exact status and architectural contexts in which these stamps were found were not reported, the undeniable legitimacy of the artifacts coupled with the documentation of their chronological and geographical origins made them suitable to add to my sample. In addition, these five stamps were substantially intact and provide a more representative sample for iconographic analysis.

While the provenience of the above artifacts is undeniably strong, a larger sample than these 24 stamps was necessary for the scope of these investigations. Therefore the online

collection catalogues of museums across the globe were meticulously examined, including The British Museum, The Ethnology Museum of Berlin, The Louvre Museum in Paris, The Vatican Museum in Rome, The Museo Nacional de Antropologia in Mexico City, The Metropolitan Museum of Art and American Museum of Natural History in New York City, the Peabody Museums of Archaeology at Harvard and Yale Universities, the Field Museum in Chicago, The University of Pennsylvania Museum of Archaeology, the Library of Congress in Washington D.C., and many others. Overall, 1015 stamps were located in museum collections, outlined in Appendix A.

However, in order to answer the question of what the spatial, temporal, and design characteristics of Mesoamerican stamps are with any certainty, in-depth and exact provenience of any materials used was absolutely necessary. Therefore, each catalogued stamp was individually evaluated for its applicability to this research. Out of those 1015 stamps, ultimately 59 stamps proved to have credible and interpretable provenience and were thus relevant to this investigation.

Of those 59 ceramic stamps, 54 reside in the American Museum of Natural History's Mexican and Central American Archaeological Collection. All of the collection's suitable stamps were donated by Dr. George Vaillant in the 1930's. Vaillant was a respected Harvard-educated archaeologist who directed excavations for the American Museum of Natural History in the 1920s-30s, taught as an Honorary Professor at the National Museum of Anthropology in Mexico in 1942, and served as museum director for the University of Pennsylvania 1941 and 1942 (George Clapp Vaillant CV, n.d.). While working for the American Museum of Natural History, Vaillant's focus turned from the American Southwest to Central Mexico and he directed several

excavations in the Basin of Mexico from 1928-1936. During his 1929, 1930, 1931, 1932, and 1936 expeditions to central Mexico Vaillant discovered 54 of the ceramic stamps examined in this investigation.

In addition to the stamps donated to the American Museum of Natural History, this study also utilized three stamps housed in the Robert S. Peabody Museum of Archaeology in Andover, Massachusetts. These stamps were excavated from the site of Pueblo Nuevo, Puebla Mexico by Mesoamerican archaeologist Robert "Scotty" MacNeish during his exploration of the Tehuacan Valley (MacNeish et al. 1970).

Ultimately, following my investigations, 83 stamps in total were appropriate to use as my sample for this study. In Table 1 below, I have provided a breakdown of my sample.

Table 1: The Sources and Numbers of Stamp Artifacts Included in This Study

Artifact Source	Number of Stamps	Number of Formative Period Stamps	Number of Classic Period Stamps	Number of Postclassic Period Stamps
Proyecto Rio Verde	19	12	4	4
American Museum of Natural History	56	5	5	45
Robert S. Peabody Museum of Anthropology	3	1	0	3
Michael Coe	5	1	0	4
Total Stamps	83	19	9	56

Archaeological Context of the Dataset

In order to understand the Rio Verde and Valley of Mexico stamps' spatial and temporal characteristics, it was necessary to contextualize the stamps with the Rio Verde Valley's and the Valley of Mexico's political sequence. To begin this contextualization, I will briefly summarize the history of the lower Rio Verde Valley and the Valley of Mexico here.

Lower Rio Verde Valley

Geography

To provide a wider picture of the geographical context of the area, the lower Rio Verde Valley is located on the southern Pacific coast of Oaxaca, Mexico, about 225 kilometers West of the Isthmus of Tehuantepec (Figure 11) (Joyce 2010:41).

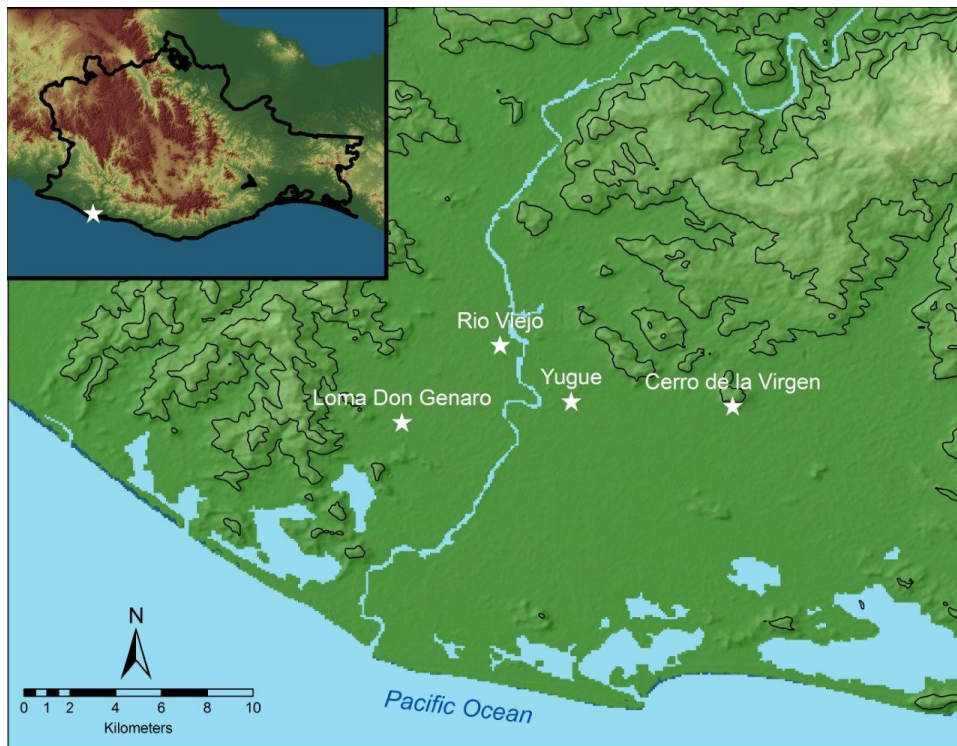


Figure 11: Map of the Lower Rio Verde Valley, Mexico

Source: Elizabeth R. Peabody

Within the myriad of environments to be found in Oaxaca, the lower Rio Verde is a particularly lush one since it is fed by the large Rio Verde, which creates broad floodplains that allow for fertile soil and successful agriculture, even during the dry season (Joyce 2010:42). In addition to the Rio Verde, southern Coastal Oaxaca is also rich with estuaries, ponds, coastal plains, piedmonts, and mountain zones (Joyce 2010:42). As such, coastal Oaxacans could enjoy not only the fruits of agricultural labor, but also an abundance of fish, shellfish, waterfowl, and salt.

Political History

Humans first began inhabiting this region of Oaxaca as hunter-gatherers in the Archaic period around 7,000 B.C. and left behind the "earliest clear evidence for permanent villages" on the southern Pacific coast in the Early Formative Period, around 1900 B.C. (Joyce 2010:72; Hepp 2015:1). Starting in the Early Formative period (1600-850 BCE), these mobile hunter-gatherers began settling down in small, egalitarian communities, but the lower Rio Verde Valley remained mostly unoccupied (Joyce 2010:84; Hepp 2015:7). This changed in the Middle Formative (700-400 BCE), when it became extensively occupied by thousands of individuals in permanent communities (Hepp 2015:16). While still mostly egalitarian, these societies do show archaeological evidence of differentiated social identities, crafting, long-distance trade, public building and cemetery construction (Joyce 2010:116). Increased social complexity, inequality, and hierarchy marks the Rio Verde Valley's Late Formative period (400-150 BCE), during which the evidence of ceramic stamps in that region first appears in my sample (Joyce 2010:118; Hepp 2015:1). Fueled by the forming of local estuaries and expansion of the floodplain, the Late Formative period is when the lower Rio Verde Valley truly begins to flourish as religion and ritual gained political importance, elites begin to associate themselves with the sacred, monumental architecture was built, and migration to larger settlements drastically increased (Joyce 2010:118,181).

Major social transformation and increased complexity occurred in settlements along the coast in the Terminal Formative period (150 BCE- CE 200), when major urban centers such as Rio Viejo emerged (Joyce 2010:186; Joyce and Barber 2015; Hepp 2015:1). During this time of dynamic and negotiated relationships between urban communities and local centers, social

inequality rose. While the overall social focus still emphasized communal history and identity, elites were constantly trying to extend their influence, wealth, and political affiliations (Joyce 2010:195). Following this, the Early Classic period (CE 250-500) was a time of turbulent upheaval and collapse (Hepp 2015:17). In CE 250, Rio Viejo's monumental acropolis was burned and abandoned, left virtually empty for the next 250 years although the city itself remained occupied to some degree and many nearby secondary sites shared similar fates (Joyce 2010:195). The cause of this decentralization is unclear and could have been due to internal or external conflict. Whatever the cause, the region remained politically fragmented until the Late Classic period (CE 500-800).

As more people migrated into the Rio Verde floodplain during the Late Classic, Rio Viejo re-emerged as a political center and the overall political climate for coastal Oaxaca was that of centralized, political authority with exclusionary and hierarchical ruling dynastic families (Joyce 2010:239). Rulers aggrandized themselves, re-commencing public ceremonies and renovating earlier monumental structures, though even with this greater social stratification commoners displayed increased social mobility as well (Joyce 2010:241-247). This southern Mexican 'renaissance' was not meant to last however, and in the Early Postclassic (CE 800-1100), Rio Viejo collapsed once again, and most Mexican polities were in decline (Joyce 2010:253).

While the lower Rio Verde Valley remained stably occupied and commoners' lives changed little, construction and use of monuments halted, the ruling dynasties of the Late Classic lost power, and public buildings were dismantled for residential construction (Joyce 2010:254-257). Once again, the cause for the collapse is unclear, but it was likely due to either conflict or

disruption of trade and political alliances from the collapse of affiliated and relied-upon polities, such as Monte Alban. Rio Viejo never recovered, and Tututepec took its place as the regional political center from the Late Postclassic (CE 1100-1522) to the Spanish Conquest (Joyce 2010:261). In the Late Postclassic, the Mixtec ruler Lord 8 Deer created the Empire of Tilantongo and Tututepec, invading and conquering the lower Rio Verde Valley in the 12th century (Joyce 2010:265). Overall, the empire was successful for several hundred years. There was even a brief period of alliance during which the Zapotec-Mixtec Alliance halted the Aztec Mexica Army's invasion in the 1400's (Joyce 2010). However, Tututepec and its surrounding polities were all eventually conquered by Cortez's lieutenant Pedro de Alvarado in 1522 (Joyce 2010:280; Levine 2007).

Sites

My materials from southern Mexico were recovered by the Proyecto Rio Verde (PRV), which excavated several sites in the lower Rio Verde Valley between 2000 and 2013 (Joyce et al. 2014:391). Excavations conducted in 2000 resulted in the discovery of one Early Postclassic stamp on the surface of Loma Reyes, three Early Postclassic stamps at Rio Viejo, including one surface find and two found in residential fill (0A-3E73-2 and 0A-0D79-1), and one Early Terminal Formative stamp in a residential area of Yugue (0B-9). The PRV 2003 excavation year yielded only two stamps, one from a public space in Yugue dating to the Late Terminal Formative (Op1-2G220-3) and one from a domestic space in Late Terminal Formative Cerro de la Virgen (Op1-8c80-4). During the 2012 dig season, a surprising seven stamps were excavated, all from public contexts including six from the Late Terminal Formative period (OpE-28A-23,

OpE-44A-22, OpD-1A-1, OpE-44A-16, OpC-0AA-13) and one from the Late Classic (OpC-0WW-25). Finally, in 2013, the Proyecto Rio Verde unearthed two stamps from a public area in Cerro de la Virgen (OpF-12D-7 and OpA-9L-1) two from domestic spaces in Loma Don Genaro (A-12E-5 and OpA-20E-11), and two from Rio Viejo, one in a public space (OpG-1DD-6) and one in a domestic area (OpC-11A-4).

Valley of Mexico

Geography

As with the lower Rio Verde Valley, it is necessary to contextualize stamps from the Valley of Mexico with the regions' political sequence in order to understand their spatial and temporal characteristics. To begin this contextualization, I will briefly summarize the geography of the Valley of Mexico here. The Valley of Mexico is located in the Mexican central highlands west of the Isthmus of Tehuantepec, and one of the core cultural regions of Mesoamerica (Figure 12) (Evans 2013:49,58). Also called Central Mexico and the Basin of Mexico, this area is home to such sites as Tenochtitlan, Nonoalco, Chiconautla, Teotihuacan, Puebla, and Tlaxcala. Situated in the center of a set of high-altitude valleys, the Valley of Mexico has a cool and somewhat arid environment with low annual rainfall (Evans 2013:49,57).

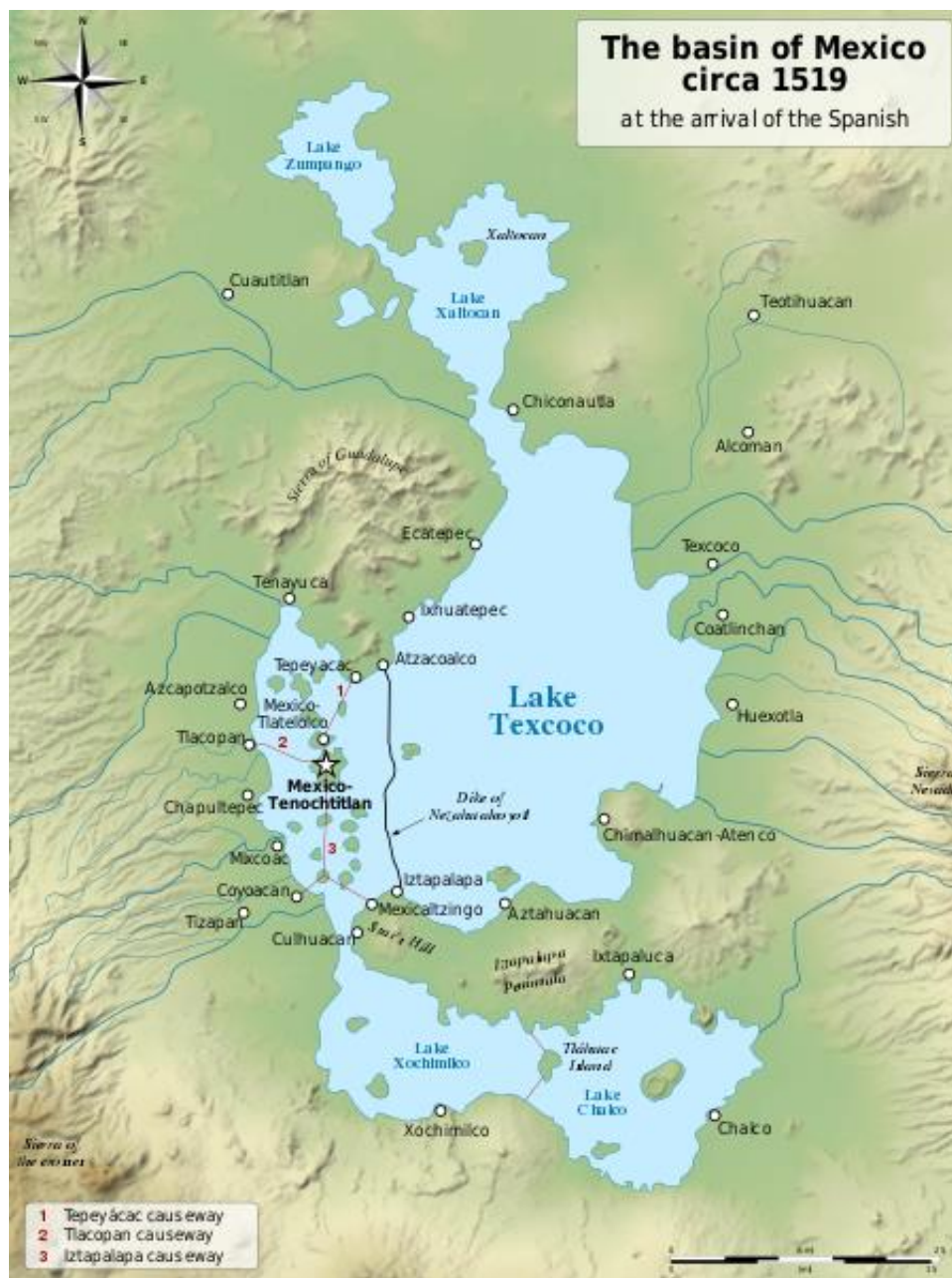


Figure 12: Map of the Valley of Mexico at the end of the Postclassic Period

Source: Wikimedia Commons

(commons/Wikimedia.org/wiki/File:Basin_of_Mexico_1519_map-en.svg)

However, it is also fed by underground aquifers, rivers and streams, including the Panuco and Papaloapa rivers which flow to the Gulf of Mexico (Evans 2013:57). Because of these rivers flowing through the center of the valley, Lakes Zumpango, Texcoco, Xochimilco, and Chalco were formed (Evans 2013:58,571). Thus, the Valley of Mexico has grasslands with thorny woodland scrub in the higher northern section and swamplands around the lakes (Evans 2013:571). Farming was somewhat difficult in these conditions, but ancient peoples in the central highlands were able to hunt game such as snakes, rabbits, lizards, insects and larvae, and gather agave and maguey tree sap in the dry seasons (Evans 2013:79). During the rainy seasons, game was not of high priority as cactus fruit, mesquite, fruits, grass seeds, acorns, and nuts could be eaten (Evans 2013:79).

Political History

Throughout the history of its occupation, the Valley of Mexico had high levels of interaction with the cultures in the adjacent valleys and basins (Evans 2013:57). As such, the political sequence and history of this region is important to contextualizing my stamp artifacts from the Valley. I will briefly summarize this political history here, focusing most heavily on the Postclassic Period as it is the period to which my stamps from the Valley of Mexico date.

Humans first began inhabiting the Valley of Mexico as nomadic foragers during the Archaic Period, (5500-3500 BCE), drawn by the marshy shores of the lakes in the southern part of the Valley (Evans 2013:90). Based on what little archaeological evidence remains due to alluvium, archaeologists believe the first true settlement of the region was the village of Zohapilco on the shore of Lake Chalco in the Middle Archaic (Evans 2013:90). During this time,

social organization was primarily an egalitarian hunter-gatherer system that relied on a wild food-based diet and chipped stone tools (Evans 2013:90-91). Little changed in the Valley of Mexico until the Early Formative period (1600-850 BCE), when several trade routes between the Valley of Mexico and the rest of the Central Highlands and the Gulf lowlands were established (Evans 2013:154). The Valley of Mexico experienced similar population growth and settlement expansion as the Valley of Oaxaca during this time, with the founding of a few "larger communities [that] served as centers for clusters of small villages" (Evans 2013:154). These larger communities were the first to begin farming in this region, constructing terrace and milpa irrigation systems to channel rainfall runoff to their crops (Evans 2013:154).

These initial attempts at agricultural communities, coupled with a period of significantly higher rainfall to the area between 900 and 800 BCE, encouraged a thriving "expansion of field systems and populations" in the Valley of Mexico during the Middle Formative (Evans 2013:172). During this time, the population of the southern half of the region soared from 6,000-20,000, all living in farming villages that were semi-dependent on foraging, with no major political centers (Evans 2013:197).

This way of life and population expansion continued until the Late Formative Period, when overcrowding of the southern part of the Valley triggered a significant migration towards the more arid northern end and the famous city, and regional capital, Teotihuacan was first established (Evans 2013:200). The continued population increase and the intensification of farming practices triggered the beginning of social stratification in the area, as those who owned better farming land possibly became patrons to those who depended on them in times of low rainfall, thus "sowing the seeds of permanent social inequality" in the area (Evans 2013:200).

At Cuicuilco, the first major pyramid of the New World was constructed, and it became the first monumental civic-ceremonial center in the Valley (Evans 2013:214). By 100 BCE the settlement's population reached 20,000 people who depended on agriculture and trade for their survival. Unfortunately, Cuicuilco was located near the volcano Popocatepetl, which erupted several times between 250BCE and 50 C.E., and the center was buried in lava (Evans 2013:214).

However, the destruction of Cuicuilco is what forced many refugees further north to the Teotihuacan, resulting in an unprecedented development of political complexity, inequality, and influence in the Valley (Evans 2013:215). By the start of the Early Classic Period (CE 250- CE 500), Teotihuacan had a population of 50,000 and developed the most complex city and ceremonial centers the region had yet seen. Teotihuacans built their city several kilometers off the shore of Lake Texcoco as a massive cosmogram, or plan of their cosmos, including the famous Pyramid of the Sun and Feathered Serpent Temple-Pyramid, which was supported by the surrounding agricultural areas (Evans 2013:260-262). Given this level of flourishing and based on the archaeological evidence, Teotihuacan's social organization was "Mesoamerica's purest expression of social stratification" but the nuances of their political system remain a highly contested mystery in Mesoamerican archaeology (Evans 2013:268,277).

What is known is that by its Golden Age (CE 300-550), Teotihuacan not only had strong ties with other centers and possible colonies, their political and cultural influence stretched into the surrounding areas of Mexico (Evans 2013:270,274). At its height, Teotihuacan was a bustling metropolis of landowners, farmers, construction, obsidian and ceramic crafts, merchants, administrators, priests, and countless others ruled by lavishly costumed kings whose power lay in their connection to the divine (Evans 2013:277). Eventually however, overcrowding and city

dwelling led to epidemics of disease, filth, parasites, and malnutrition (Evans 2013:282). Coupled with massive construction resulted in the environmental degradation of the surrounding valleys and forests, and possible global cooling resulted in poor agricultural yields, these conditions likely caused the lower classes to revolt against the elites and Teotihuacan was torched and destroyed in the Late Classic Period (CE 500). Settlement of the area was reduced to a ring of villages around the abandoned city center, and there is no evidence of engagement in trade or diplomacy after that (Evans 2013:367). After the fall of Teotihuacan, the Valley of Mexico was mostly inhabited by communities of "sedentary agriculturalists moving into lightly settled areas" until the rise of the Aztec Empire (Evans 2013:367).

The Aztec period sample in this study derives from three sites around the lakes in the valley bottom, all dating to the Late Postclassic Period. By CE 1431, the Aztec empire, based in the city of Tenochtitlan, had grown to a population of 400,000 people through military conquest and alliances with surrounding polities, usually by marriage, and had created a "secure perimeter of vassal states" by conquering areas to the north, west, south east, and south (Evans 2013:472-475). As the Aztec Empire grew and coalesced, the Aztecs "actively promoted social stratification", and their sociopolitical system included an increasing hierarchy of nobles by birth, upper middle class commoners who were granted titles (usually to distinguished warriors and long-distance merchants), the working class farmer-artisans whose lives revolved around communal work, rituals, and social events, and finally slaves (Evans 2013:472-475).

The expansion of the Aztec Empire was not a trifling task. The Aztecs were arrogant and demanding rulers and many of the polities they conquered were constantly putting up resistance, forcing the Aztecs to constantly 'reconquer' rebellious holdings that did not appreciate such

heavy tribute taxes (Evans 2013:493). This was the Aztec Empire that Motecuzoma II had to rule when he became emperor in 1502 (Evans 2013:525). It was during his reign that Cortes discovered the New World and the Spanish Conquest began. Cortes immediately began making alliances with the Aztec enemies who were tired of Tenochtitlan's tribute demands and oppression such as Cotaxtlans, Tlaxacala, and Cholula in Puebla (Evans 2013:537-540). Motecuzoma II tried to placate Cortes with gifts and hospitality during his stay in Tenochtitlan, but this only resulted in allowing Cortes to assess the city's defenses, the massacre 1,000 Aztec elites, and Motecuzoma II's death at the hands of his own people. When the Spanish attacked Tenochtitlan on June 1, 1521, they ended up sieging the city for two and a half months. Eventually, decimated by smallpox, starving, and dehydrated despite their best efforts, the Aztecs officially surrendered their empire and their city to Cortes on August 12, 1521 (Evans 2013:555). The Valley of Mexico now officially belonged to Spain.

Sites

My materials from the Valley of Mexico date primarily to the Late Postclassic Period, with the exception of five Classic Period stamps from Teotihuacan. All of these stamps were recovered by Vaillant during his excavations of the areas surrounding Tenochtitlan.

Within the Basin of Mexico, Vaillant focused specifically on the Aztec city of Tenochtitlan, which today lies within modern Mexico City, and its surrounding areas. Initially Vaillant's attention was fixed on reconstructing central Mexico's Formative period and his excavations unearthed four Formative Period stamps from three archaeological sites located in neighborhoods just north of what once was Tenochtitlan. One of the stamps was found in Trench

D at Zacatenco, two in Trench C at Ticoman, and one in Trench I at El Arbolillo. When he returned to the area in 1932, Vaillant's attention shifted to central Mexico's Classic Period and he discovered five stamps while excavating Teotihuacan.

For these purposes, Vaillant's most successful excavations were conducted in 1935 at the Postclassic sites of Santiago Ahuitzotla, Chiconauhtla and Nonoalco (Figure 13). Unfortunately, Vaillant never published his work on these or any other Classic or Postclassic sites (Elson and Smith 2001:160). However, his field notes are held in the University of Pennsylvania archives and have been included in previous research and publications on Mesoamerican archaeology, allowing for some interpretation of artifact provenience as supplied by museum catalogues.

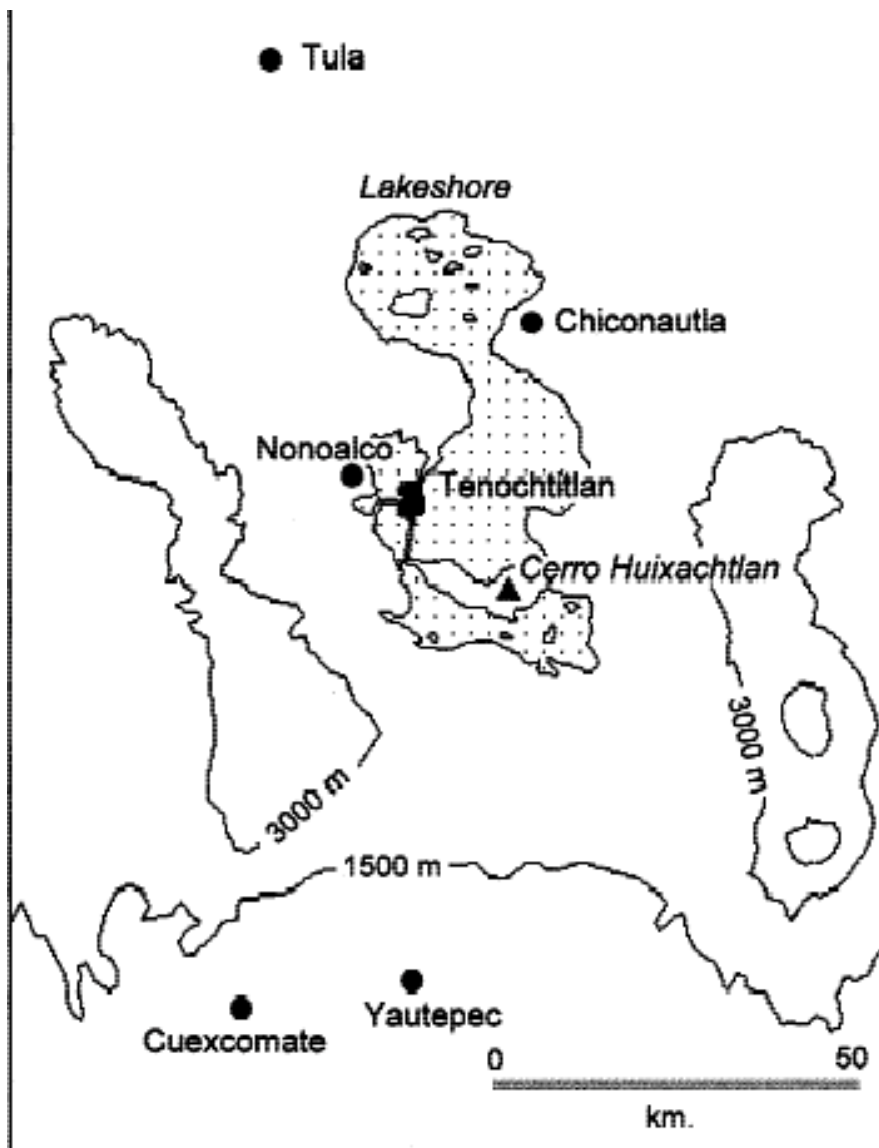


Figure 13: Map of the sites in Central Mexico excavated by Vaillant

Source: Elson and Smith 2001:161

On the western edge of Lake Texcoco Vaillant excavated at the site of Nonoalco, which lay between Tlatelolco and Tlacopan, and was already urbanized when he arrived in 1935. He excavated under electrical towers 100 yards east of the Church of San Miguel Nonoalco and

bordered on the North by the Calzada de Nonoalco, an ancient causeway, according to a letter he wrote to Clarence Hay in January of 1935 (Elson and Smith 2001:162). North of the lakebed at the site, Vaillant opened the East Trench, which measured 20 meters long on the North-South axis and 3.5 meters wide (Elson and Smith 2001:162). Within the trench he found the remains of a canal as well as a gradually accumulated midden of household wares and architectural remains that suggested he was "digging near an area of residences" (Elson and Smith 2001:162). From East Traverse Cuts I, II, and III, 17 stamps were found. In addition, two more stamps were uncovered in backfill near the Calzada de Nonoalco, bringing the total stamps excavated from Nonoalco up to 19.

After excavating Nonoalco, Vaillant began work at the site of Chiconautla. According to Vaillant's field notes, Chiconautla lies on the east edge of Lake Texcoco, 17 km northwest of the city of Texcoco (Elson and Smith 2001:161). While there in 1935, Vaillant excavated what he interpreted to be a Postclassic elite residential palace and "thus the focus of administrative, religious, and domestic activities" (Elson and Smith 2001:161). His work at Chiconautla focused specifically on a section of the palace he called the South House, which was "distinguished from the rest of the palace by the large amount of destroyed ceramic deposits there" (Elson and Smith 2001:162). His investigations started in this spot with a large trench that cut into an artifact dump under the patio of the South House (Elson and Smith 2001:161). Two stamps were excavated from beneath the patio of the South House. In addition, five stamps were excavated from South Traverse 6, one from South Traverse 11, and one from South Traverse 13. Four stamps were uncovered in the Northeast Traverse, two from the West Traverse, one from the East Traverse, and two from fill of the N.S. Platform for a total of 17 stamps from Chiconautla.

Finally, at the site of Santiago Ahuizotla, near Azcapotzalco, and which Vaillant termed "El Corral" four stamps were discovered in Trench A, three were discovered in Trench B, and two were collected from the surface, for a total of nine stamps (Elson and Smith 2001). No further context for Vaillant's Santiago Ahuizotla excavations is available, as those reports have never been published in full.

Methodology

Overall, the true mystery of Mesoamerican stamps lies in their function and meaning. Therefore, for this study an inductive and varied methodology was employed in order to analyze the spatial, temporal, and design characteristics of stamps and determine any patterns of distribution, use, or design. I chose a primarily culture history based theoretical framework because culture history theory emphasizes the understanding of societies, as well as patterns in space and time, through the classification of material remains into typologies (Webster 2008; Willey and Sabloff 1980). Also, culture history based typology was particularly appropriate to use for this research as decoration is the traditional basis of culture history classification and decoration is the most unique and identifiable element of ancient Mexican stamps (Rouse 1960; Webster 2008).

My research was also lightly informed by processual and postprocessual theory. Processual theory focuses on correlations between context, status, and function; as well as the value of material remains (Johnson 2010; Steward 1955). By examining my culture history based typology within the framework of processual theory I was able to not only increase the scientific validity of my research, but also begin to identify patterns that could indicate the function of

stamps. Postprocessual theory emphasizes interpreting the meaning of iconographic imagery to understand past practices and experiences (Johnson 2010; VanPool and VanPool 1999). This was appropriate for my study since the iconography of ceramic stamps are their most fascinating feature and it may assist in determining what meaning these artifacts held to their users.

Before embarking on original analysis, a literature review was conducted to allow assessment of the legitimacy of previously presented hypotheses of stamp function and meaning and the credibility of those authors. In addition, Mesoamerican codices and historical documents were reviewed for evidence of stamping practices and their meaning.

Following the literature review, original analysis of the material was begun by travelling to Oaxaca, Mexico, in July of 2016 to perform basic analysis on the stamps discovered by the Proyecto Rio Verde, which houses its collection in Cuilapan. Basic analysis included photographing the artifacts to scale, exact measurement of individual artifacts, determining spatial and chronological origin, and iconographic classification of stamp motifs.

Once the core dataset of Rio Verde and stamps in museum collections had been compiled, basic quantitative analysis techniques were utilized to determine the percentages of stamps' geographic and chronological origination points, the comparative frequencies of the status and architectural contexts in which stamps were found, and the comparative frequencies of several basic iconographic motifs. The attributes collected on each stamp include:

- The time period they date to
- The site of the stamp's discovery
- The region of the stamp's discovery
- The Status Context in which stamp was found

- The Architectural Context in which stamp was found
- Who excavated the artifact
- Stamp form
- Stamp size
- The stamp's Primary Motif Category
- The stamp's Secondary Motif Category
- The stamp's Tertiary Motif Category where applicable

In order to determine who used stamps in ancient Mexico, I elected to classify each stamp according to which status context it was excavated from: Elite, Non-Elite, Ritual, Mixed, and Unknown. For the purposes of this study, status, or status, context refers to the social status of the people who occupied or utilized an area. For example, palaces were occupied by elites while *barrios*, or domestic neighborhoods, were occupied by non-elites (Dennehy et al. 2014). In addition to elite and non-elite contexts, ritual status context areas were chiefly utilized by religious specialists for public rituals, and mixed status context refers to stamps found in areas that were either used indiscriminately by several social classes or where artifacts belonging to members of many social classes became jumbled together over time, such as middens.

In order to determine where stamps were being used in ancient Mexico, I classified each stamp into one of three architectural context categories: Public, Residential, or Other. For the purposes of this study, the term architectural context refers to the type of area in which a stamp artifact was found. For example, Public architectural contexts are areas in which communal activities took place such as civic meetings and rituals (Charleton et al. 1991). Residential

architectural contexts refer to areas in which people lived and carried out daily activities (Charlton et al. 1991). Stamps not found in either Public or Residential contexts were classified as Other.

Classification

In order to effectively and thoroughly determine the characteristics of stamp iconographic designs, or motifs, it was necessary to create a new Motif Classification Typology since decoration is traditionally the basis for useful and reliable classification categories (Lyman et al. 1997:124). While Enciso (1953) published a basic classification scheme for Mexican stamp motifs, his typology did not allow for smooth or definitive classification groups. Nor did his typology aid in chronologically placing stamps via their designs. As a relatively reliable way of dating previously excavated stamps by their iconographic depictions does not currently exist, I created a classificatory scheme in which such dating might be possible.

Prior to in-depth analysis, a basic qualitative 3-tiered motif classification typology was created in order to group stamps with similar attributes so they could be more easily studied and appropriate categories and patterns more easily recognized. Within this typology, each stamp was evaluated with three main categories in mind: Motif, Elaboration, and Craftsmanship. These ideational units were chosen for their efficacy in this particular area. However, the arbitrary nature of these categories does not detract from their usefulness since the entire point of an artifact classification scheme is its "ability to measure culture and ...[an artifact type's] change through time and over area" (Ford 1954:38). With this in mind, each main category was either given several subcategories or levels of rank.

For the purposes of this study, motif will be the term used to describe the iconography or design depicted on a stamp. In addition, these categories and motif interpretations were informed by our current understanding of Pre-Columbian sign systems. There are three tiers within my classification system: Primary, Secondary, and Tertiary motifs, with the Secondary and Tertiary Categories acting as Primary motif subcategories. I utilized this system because it allowed for the categorization of motifs at varying levels of identification. While some motifs were readily identifiable, such as monkey motifs (which would be categorized as Primary Motif Category: Nature, Secondary Category: Fauna, Tertiary Category: Monkey), other stamp motifs were more difficult, or impossible to identify in detail. For example, a stamp motif may be recognizable as a natural (Primary Category) flower (Secondary Category), but it was impossible to narrow down exactly what type of flower it may be depicting (Tertiary Category). This allowed for fine-tuned categorization where possible, but also for at least one level of general identification for each stamp, making patterns in distribution more easily recognizable. Within the overall Motif Category, several more specific subcategories were also created as follows:

1. Metaphysical Symbols

a. Numbers

- Flags

- Dots and lines

b. Nature/Astrological Symbols (Figure 16)

- Flora

- Venus

- Stars

- Metaphysical suns

c. Deities (Figure 17)

- Quetzalcoatl

- Ehecatl

d. Cosmograms (Figure 18)

- Cruciform

- Step Fret

2. Nature

a. Flora (Figure 19)

- Flowers

- Leaves

b. Fauna (Figure 20)

- Birds: eagles, buzzards

- Insectoids: scorpions, butterflies

- Reptiles: lizards, frogs

- Mammals: monkeys, rodents, small mammals, cats

c. Elements and Landscape (Figure 21)

- Lightning symbols

- Natural Sun symbols

- Hills

3. Humans

a. Limbs (Figure 22)

-Feet

b. Full Figures

4. Objects (Figure 23)

a. Household: mats, hooks

b. Elite: knot and tassels

c. Weapons: Aztec sword

d. Architecture: stairs, platforms

5. Geometric (Figure 24)

a. Triangles

b. Circles

c. Lines

d. Zigzags



Figure 14: Late Terminal Formative Period stamp from Rio Viejo with metaphysical floral motif

Photo Source: Elizabeth R. Peabody



Figure 15: Late Postclassic Period stamp from Nonoalco with Quetzalcoatl motif

Source: Catalogue No. 30.2/2017, Courtesy of the Division of Anthropology, American Museum of Natural History.



Figure 16: Late Terminal Formative Period stamp from Cerro de la Virgen with cruciform cosmogram motif

Photo Source: Elizabeth R. Peabody



Figure 17: Late Postclassic period stamp from Santiago Ahuizola with floral motif

Source: Catalogue No. 30.1/8186, Courtesy of the Division of Anthropology, American Museum of Natural History.



Figure 18: Late Classic Period stamp from Rio Viejo with double eagle motif

Photo Source: Elizabeth R. Peabody



Figure 19: Late Postclassic Period stamp from Chiconautla with lightning cloud motif

Source: Catalogue No. 30.2/696, Courtesy of the Division of Anthropology, American Museum of Natural History.



Figure 20: Classic Period stamp from Teotihuacan with foot motif

Source: Catalogue No. 30.1/3742, Courtesy of the Division of Anthropology, American Museum of Natural History.



Figure 21: Late Postclassic Period stamp from Nonoalco with knot and tassel motif

Source: Catalogue No. 30.2/2019, Courtesy of the Division of Anthropology, American Museum of Natural History.



Figure 22: Early Postclassic Period roller stamp from the Coxcatlan Road Site with geometric spiral motif

Source: Drawing of Catalogue No. 200/1219 at the Robert S. Peabody Museum of Archaeology.

Following the ordering of stamps according to their motif, each artifact was then evaluated for the level of elaboration within the design. For the purposes of this study, elaboration pertains to the number of incisions made to create the overall design, the number of motifs present in the overall design, and the number of separate designs on a stamp. To allow for a manageable way to measure elaboration, stamps were placed within one of five definable levels (Figure 25 of Level 1-5 examples). These levels were defined as follows:

Level 1: 0-10 incisions, 1 motif, 1 design

Level 2: 10-20 incisions, 1-2 motifs, and 1 design

Level 3: 20-30 incisions, 2-3 motifs, and 1 design

Level 4: 30-40 incisions, 2-4 motifs, and 1 design

Level 5: 40+ incisions, 2+ motifs, 2+ designs



Figure 23: Examples of stamp elaboration levels 1-5 from top left

Source: Catalogue Nos. 30.0/8000, 30.2/2003, 30.2/2021, 30.2/2011, 30.2/2015, Courtesy of the Division of Anthropology, American Museum of Natural History

Once a stamp's Motif and Elaboration classification was determined, its placement within the third and final main category, Craftsmanship, was evaluated. For the purposes of this study, the term 'craftsmanship' refers to the crispness, cleanliness, and straightness of the incision lines

and the overall motif (Figure 26 of Rank 1-5 examples). In turn, Elaboration and Craftsmanship are thus indicative of the labor investment required to produce the stamp (Costin and Hagstrum 1995; Feinman et al. 1981). Each individual stamp was placed in one of five possible ranks. The qualitative specifications for each rank were as follows:

Rank 1: extremely rough, very crooked lines, and/or overall misshapen form

Rank 2: somewhat rough incisions, lines slightly crooked, and/or overall form somewhat misshapen

Rank 3: mostly clean incisions with no jagged pieces, only one or two crooked lines or shapes, overall stamp well formed.

Rank 4: very clean, crisp incisions, no crooked lines or shapes, overall stamp well formed

Rank 5: very crisp, smooth incisions, all lines and shapes very straight and true to shape, stamp well formed with very clean, definitive edges.



Figure 24: Examples of stamp craftsmanship ranks 1-5 from top left

Source: Catalogue Nos. 30.0/9348, 30.2/692, 30.2/2010, Courtesy of the Division of Anthropology, American Museum of Natural History; Elizabeth R. Peabody.

Iconography Interpretation

In order to place the stamps from my sample into my iconographic classification scheme, I first had to interpret what the stamp motifs represented in ancient Mexican culture. For some stamps the motifs depicted were easily identifiable and did not require additional research.

Therefore, these stamps will not be discussed in detail here. What will be discussed are the stamp motifs that were not readily identifiable and required further research in order to classify them properly.

The first example was the motif on a stamp from Late Terminal Formative period Rio Viejo in Oaxaca (Figure 27). For a Western gaze, this motif appeared to represent some kind of key. In reality however, it is far more likely that this symbol depicts a flower with a breath scroll emanating from it. Taube (2010:156-158) not only briefly discusses the role of flora with breath scrolls in Late Postclassic Mesoamerican iconography, he also provided examples from Tulum (Figure 28). Breath, speech, and song scrolls are very common in Mesoamerica due to the fact that "the living soul is widely identified with breath" there (Houston et al. 2006:142; Taube 2010). In addition, the breath soul was also commonly coupled with floral symbols in Mesoamerica since flowers 'exhale' their fragrance and were symbols of goodness and high status (Houston et al. 2006:142). When the Rio Viejo stamp's motif is seen side by side with Taube's examples it is clear that the stamp is depicting a flower with a breath scroll.



Figure 25: Late Terminal Formative stamp from Rio Viejo with Flower and Breath Scroll motif

Photo Source: Elizabeth R. Peabody

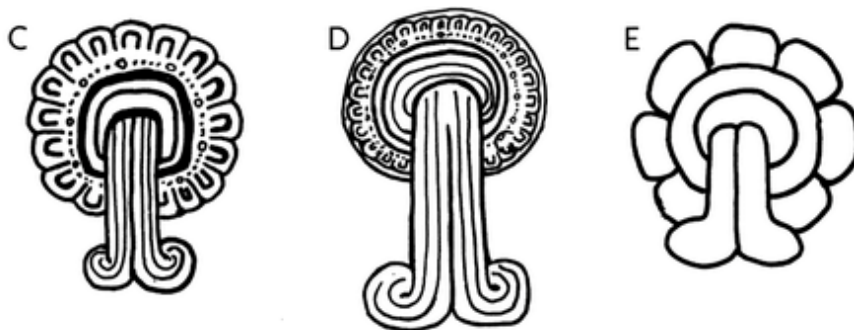


Figure 26: Examples of Flower with Breath Scroll motifs from Tulum, Mexico Structure 5

Source: Taube 2010:157

The second unidentified motif I deciphered was depicted on two stamps from Postclassic Period Chiconautla in the Valley of Mexico (Figure 29). Given the fact that these stamps depict the same exact motif, it seemed likely that there was a specific meaning behind the symbol. Step-fret symbols are extremely common in Mesoamerican iconography and have been interpreted to be related to the feathered serpent storm god Quetzalcoatl as the step-fret is reminiscent of Quetzalcoatl's plumage (Houston et al. 2010; Brumfiel 2007; Elson and Sherman 2007). Quetzalcoatl is one of the most famous and important deities in Mesoamerica, particularly during the Postclassic period, and he functioned to bring winds, storms, rain, and lightning (Miller and Taube 1993; Elson and Sherman 2007). When in his lightning form, Quetzalcoatl was called Cociyo in Oaxaca and Cociyo in particular is associated with step-frets on many vessels in ancient Mexico (Elson and Sherman 2007:274).

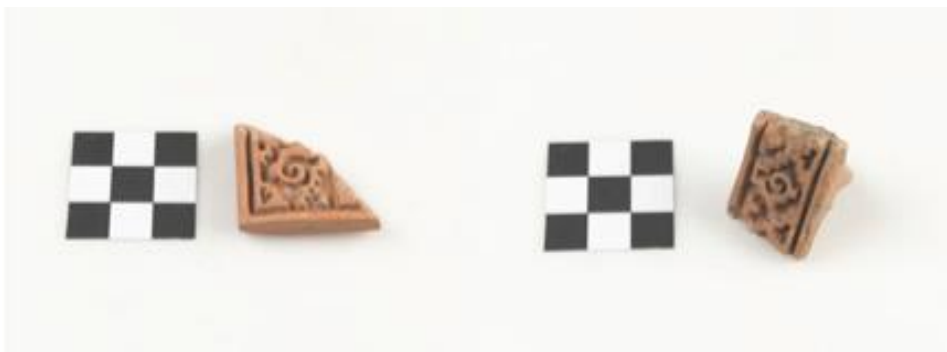


Figure 27: Late Postclassic Period stamps from Chiconautla with lightning cloud motifs

Source: Catalogue Nos. 30.2/694 and 30.2/696, Courtesy of the Division of Anthropology, American Museum of Natural History.

While the step-fret is highly likely to be a symbol of lightning, the fact that it is in a spiral shape in these motifs mean the symbol likely can be further interpreted to represent a lightning cloud specifically. In Mesoamerica, clouds were commonly depicted in rows of spirals (Figure 30), thus when step-frets and spirals are combined, they represent lightning clouds (Parry 1894:201; Houston et al. 2006).

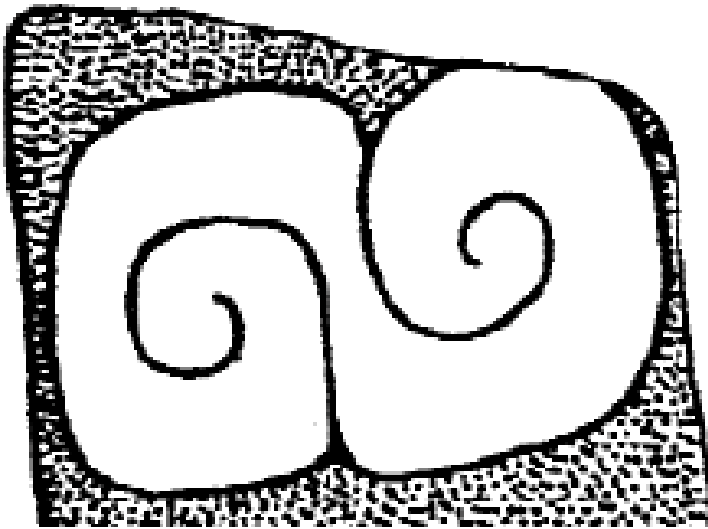


Figure 28: Example of Mexican spiral cloud symbol

Source: Taube 1996:52

Following the interpretation of lightning clouds, I turned my attention to interpreting a similar Quetzalcoatl motif depicted on two stamps from Late Postclassic Chiconautla and three stamps from Late Postclassic Nonoalco (Figure 31). All Mesoamerican iconographers are familiar with the symbols and depictions of the storm god Quetzalcoatl, as they are some of the

most common and widespread iconographic symbols in Mesoamerica. Quetzalcoatl was also called the plumed or feathered serpent and was imagined to be a great winding snake with beautiful blue and gold plumage (McCafferty 2012; Miller and Taube 1993; Houston et al. 2006). While not as complex as some Quetzalcoatl motifs (Figure 32), these stamps are clearly depicting a simplified version of Quetzalcoatl with his long sinewy body, sharp dagger-like feathers, and fanged snake head.



Figure 29: Late Postclassic Period stamps from Chiconautla and Nonoalco with Quetzalcoatl motifs

Source: Catalogue No. 30.2/691, 30.2/702, 30.2/2015, 30.2/2017, 30.2/2017, Courtesy of the Division of Anthropology, American Museum of Natural History.



Figure 30: Complex Quetzalcoatl motifs from the Codex Telleriano-Remensis

Source: Stanley 2008:5

In addition to the Quetzalcoatl stamps, the sample included one stamp from Late Postclassic Chiconautla and three from Late Postclassic Nonoalco that appeared to depict the deity Ehecatl (Figure 33). Ehecatl, also commonly called Quetzalcoatl-Ehecatl, is a version of Quetzalcoatl that specifically identifies with the wind (Taube 1993; O'Mack 1991; Houston et al. 2006). He is most easily identified by his "distinctive...buccally attached mask in the form of a protruding mouth and nose or beak" (O'Mack 1991:11). The depictions of Ehecatl that have been the most thoroughly studied are more complex (Figure 34), but when viewed together one can clearly see that these stamps portray Ehecatl's bird-like mask. The Late Postclassic stamp from Chiconautla seems to stress the form of Quetzalcoatl-Ehecatl specifically, as the buccal masked figure is coupled with previously discussed symbols for lightning. Regarding the three stamps from Late Postclassic Nonoalco, it is worth noting that they are fragmented and thus additional symbols linked to Quetzalcoatl that may have been present can no longer be identified.



Figure 31: Late Postclassic Period stamps from Chiconautla and Nonoalco with Ehec atl motifs

Source: Catalogue Nos. 30.2/689, 30.3/2002, 30.2/2012, 30.2/2018, Courtesy of the Division of Anthropology, American Museum of Natural History.



Figure 32: Complex Ehecattl motif from the Codex Magliabechiano

Source: Nuttall 1983:61r

However, in these three stamps with identical motifs the beaked head is coupled with an Aztec sword, which lends further support to these motifs representing Ehecattl. The Aztec sword depicted in these stamp motifs is a particular kind of Aztec sword called a *macuahuitl*, which was a wooden sword with prismatic obsidian blades inset on the sides to give it a serrated edge (Figure 35) (Pastrana and Carballo 2017:337). This is of particular importance because the Aztec believed that obsidian formed when "lightning penetrated the earth, constituting a union of terrestrial and celestial" and thus associated it specifically with Quetzalcoatl-Ehecattl (Pastrana and Carballo 2017:334). Further support for *macuahuitl* swords being associated with Ehecattl is

the fact that the bird ancient Mexicans associated most closely with Ehecatl were hooded merganser waterfowl, or *Lophodytes Cucullatus*, which has a long, narrow beak filled with serrated teeth (O'Mack 1991:15). In addition, Ehecatl was also associated with merchants, who were inextricable linked with the military since they "often served a central role in facilitating the later territorial expansion [of the Mexica Aztecs]" (O'Mack 1991:18;Evans 2013). Thus, I have classified these four stamps as Metaphysical symbols that depict the deity Ehecatl.



Figure 33: Example of a pointed *macuahuitl* sword

Source: Mexico News Network (www.mexiconewsnetwork.com/art-culture/aztecs-warriors/)

The final iconographic interpretation that it is necessary to discuss is that of 'natural' vs. 'metaphysical' sun motifs. The sun is an extremely important object to most agricultural societies for its necessity in producing good harvests and for its life-giving warmth. As such, it is commonly awarded a place of high importance in these societies' religions (Campbell 1972; Leeming 1990). All Mesoamerican religions, including those of ancient Mexico, are nature-based and it is incredibly difficult to determine whether a symbol is specifically ideological or metaphysical because in these Mesoamerican religions the universe, and thus the natural world, "is not distinct from divinity" (Monaghan 2000:26; Markman and Markman 1989; Miller and Taube 1993). Essentially, the ancient Mexicans viewed all natural elements and objects as divine and all divine elements and beings as natural. This is especially true for symbols representing such a significant element as the Sun, which the Aztecs believed they had to help win its daily war against the moon and stars with human sacrifices lest human life become extinct (Brumfiel 2007:92-93).

However, despite the difficulty in distinguishing specifically ideological and mundanely natural Mesoamerican motifs, I chose to include Metaphysical and Nature motifs as separate categories. This was because several motifs were recognizably more than natural, either in total design as with Quetzalcoatl motifs, or by additional symbols and elements included with the main motif design as with the metaphysical sun motifs discussed below. Thus, for the purposes of this study, the category of Nature motifs includes objects and elements that are naturally occurring. Contrariwise, the category of Metaphysical motifs includes objects, beings, and elements that are supernatural, perhaps even ideological, in essence, even though they may also be associated with naturally-occurring objects/elements.

Within my sample, I have six stamps that I have interpreted to represent sun symbols; one from Late Classic Loma Don Genaro in Oaxaca, three from Late Postclassic Chiconautla, and three from Late Postclassic Nonoalco (Figure 36). Of these six sun motifs, I further classified two of them as representing specifically metaphysical sun designs, both from Late Postclassic Chiconautla (Figure 37). As previously stated, determining the level of Metaphysical meaning a sun motif held to ancient Mexicans is difficult, and in these two cases I was only able to identify them as specifically metaphysical due to the other symbols the sun was coupled with in the motif. The first of these motifs, on stamp 41, is rather fragmented and therefore it is impossible to know what the motif was intended to look like intact. However, one can see the remnants of a set of concentric circles with rays emanating around their circumferences, a common Mesoamerican sun motif (Brumfiel 2007; Miller and Taube 1993).

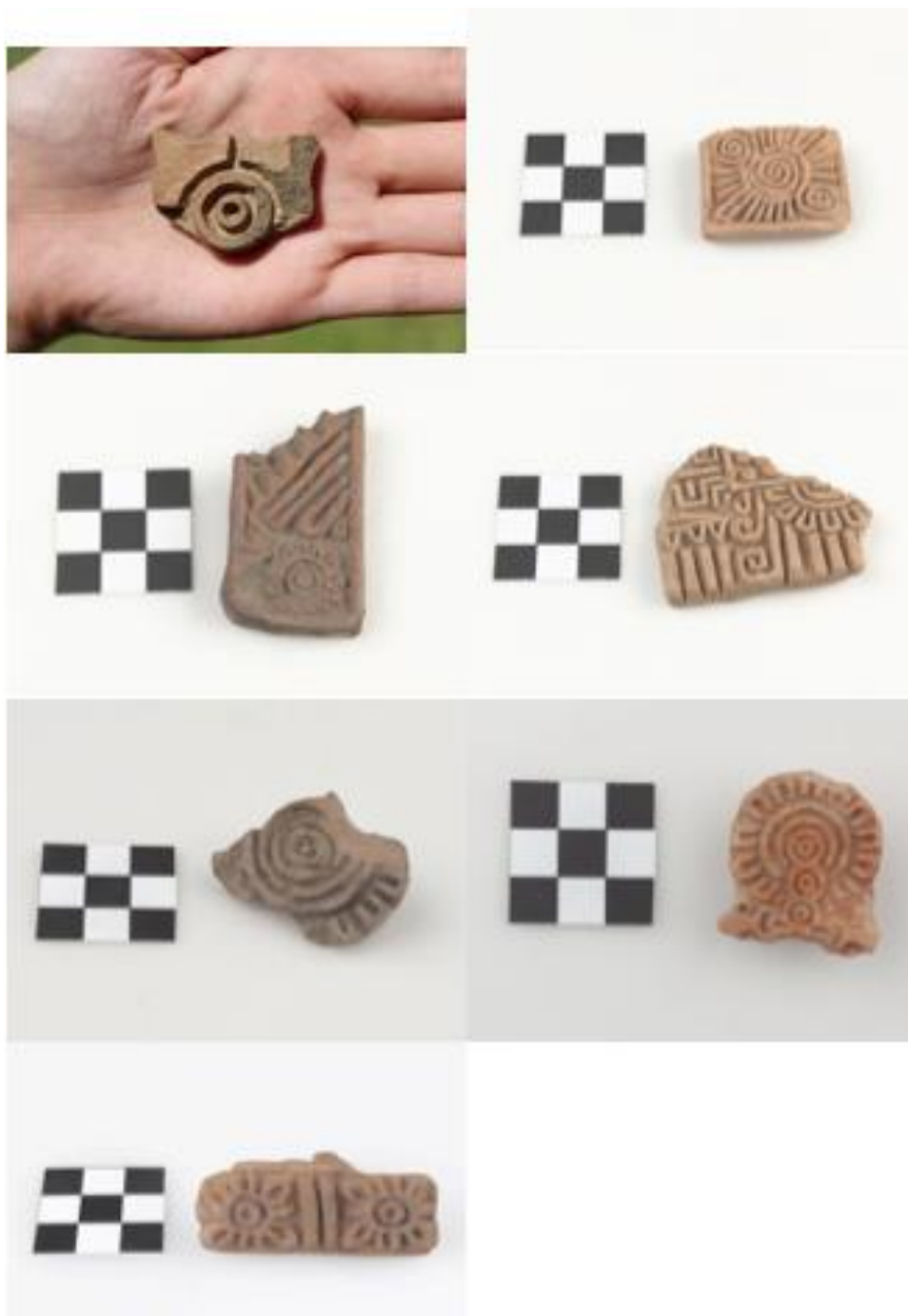


Figure 34: Stamps with sun motifs from Late Classic Period Loma Don Genaro and Late Postclassic Period Chiconautla and Nonoalco

Source: Elizabeth R. Peabody; Catalogue Nos. 30.2/692, 30.2/706, 30.2/698, 30.2/2003, 30.2/2004, 30.1/6465, Courtesy of the Division of Anthropology, American Museum of Natural History



Figure 35: Late Postclassic Period stamps from Chiconautla with metaphysical sun motifs

Source: Catalogue Nos. 30.2/706, 30.2/698, Courtesy of the Division of Anthropology, American Museum of Natural History

These rays are also reminiscent of bird plumage and are further surrounded by more rays with spiral step-fret designs. As I have previously discussed, feathers, spiral rays, and step-fret spirals are all symbols associated with the god Quetzalcoatl, who was also associated specifically with the sun (Brumfiel 2007). Therefore, I have interpreted this motif to mean a sun symbol specifically related to Quetzalcoatl, making this a metaphysical sun symbol.

The other metaphysical sun motif is found on stamp 48, which is also unfortunately fragmented and therefore unidentifiable in its entirety. On the section of the stamp that is intact, one can clearly see a full sun symbol, again a set of concentric circles surrounded by feather-like rays. The second section of the motif is incomplete, but a set of parallel lines topped with a row of triangles can be seen. These triangles, reminiscent of teeth or scales, are also commonly associated with Quetzalcoatl and the rows of lines with a circle at the bottom may represent the heavens (Miller and Taube 1993). Thus, I have interpreted this sun motif as also being specifically related to Quetzalcoatl and therefore metaphysical in intention.

Statistical Analysis

In order to strengthen the analysis beyond qualitative classification and basic quantitative investigation, further statistical analysis was conducted using SPSS Statistics software. I used SPSS software due to its' original creation being specifically for use in social sciences research and also because it is currently one of the leading statistical analysis programs used in the field of anthropology (Good 2012). It is also important to note that the use of SPSS provided a way to correct for the fact that my sample is biased towards the Postclassic Period and thus not fully representative of stamps in previous time periods.

Due to the nature of my data, I ran Chi-Square Tests of Association on particular pairwise comparisons. Chi-Square Tests of Association compare one group of information with multiple levels to another group of information with multiple levels, making it suitable to my requirements. In addition, Tests of Association try to correct for overrepresented categories, in my case stamps dating to the Postclassic Period. SPSS achieves this by estimating expected values from a sample to control overrepresented categories. In instances of categories that are overrepresented, there will be a higher expected value; likewise underrepresented categories have a smaller expected value.

For all Chi-Square Tests of Association performed, an alpha of 0.05 was used as well as an expectation of at least 5 per cell, or category, for 80% or more of the cells as is recommended (Good 2012). Thus, if the resulting p-value was less than 0.05 then the test results were statistically significant. In such cases, standardized residuals were then examined to determine which category proportions were driving the significant differences. Standardized residual lines were chosen because they not only determine how different the observed values are compared to

the expected values, but also corrects for sample size. Cells with standardized residuals absolutely greater than 1.96 are very strongly contributing the significant p-value (Good 2012).

Effect sizes were also calculated for Tests of Association with statistically significant results. Effect sizes serve to support significant p-values and provide an alternative option for quantifying the strength of statistical significance. In addition, they lend support to significant p-values in situations where the assumptions of the test used were violated. Effect sizes are calculated by using the formula $(\text{Chi-Square test statistic})/(\text{sample size}) * (\text{number of categories} - 1)$. Categories with effect size results of <0.099 are interpreted as having no effect on the statistical significance of the test run, while categories with results of $0.10-0.299$ have a weak effect, results of $0.30-0.499$ have a moderate effect, and results of $0.50+$ have a large effect.

In total, Chi Square Tests of Association were performed on nine pairwise comparisons. These likewise pairs were selected by reviewing the results of my relative frequency comparison calculations and choosing the most interesting and informative pairs. The contextual pairwise comparisons analyzed via SPSS were:

- Status Context vs. Time
- Architectural Context vs. Time

The iconographic pairwise comparisons analyzed via SPSS were:

- Main Motif vs. Time
- Main Motif Status vs. Motif Type
- Motif Time vs. Status Context
- Motif Time vs. Architectural Context

- Architectural Context vs. Main Motif Category
- Elaboration vs. Time
- Craftsmanship vs. Time

Conclusion

In summary, both qualitative and quantitative analysis was performed on a sample of 83 ancient Mexican stamps. This sample was developed with stamps residing in the collections of the Proyecto Rio Verde in Cuilapan, Mexico, the American Museum of Natural History, and the Robert S. Peabody Museum. With this sample I was able to focus primarily on southern and central Mexico, both diverse areas of differing environment and development with long and complex histories. In general, this study will focus mostly on the sites of Rio Viejo, Nonoalco, and Chiconautla to investigate the contextual and iconographic characteristics of ancient Mexican ceramic stamps. A table of the stamps included in this dataset as well as the characteristics I have assigned them can be found in Appendix B.

My contextual characteristic investigations were comprised of determining the comparative relative frequencies of certain stamp characteristics and the use of Chi Square Tests of Association on two pairwise comparisons with the aid of SPSS Statistics software. My iconographic characteristic investigations began with inducing a new stamp motif classification system using my sample and within the framework of culture history theory. Following the interpretation and classification of the motifs within my sample, I determined the comparative relative frequencies of several iconographic stamp characteristics. Further statistical analysis was then achieved by running Chi Square Tests of Association on seven pairwise comparisons

through SPSS Statistics software. Through the use of this methodology, I was able to not only lay a strong foundation for determining the chronological, contextual, and design characteristics of ancient Mexican stamps but also begin identifying distributional trends and patterns of stamp characteristics over time.

CHAPTER FOUR: FINDINGS

In this chapter I present the results of the myriad of analyses I performed to identify stamp distribution patterns. The first section of this chapter displays the results of my investigations into the contextual characteristics of Mexican stamps. This includes chronological comparisons of stamp deposition, status context, and architectural context. All of these comparisons were done at two levels, the first within the overall sample and the second within the individual time periods of the Formative, Classic, and Postclassic. The second section of this chapter displays the results of my analyses of the iconographic and motif characteristics of Mexican stamps. These analyses included comparisons of the chronological distributions of stamp primary and secondary motif categories both within the overall sample and within the 3 main time periods. In addition, the iconographic analysis presented here also includes the distribution of primary motif categories according to the status and architectural contexts of their relative excavation sites. The final section of the chapter details my analyses into the chronological distribution of these stamps according to the level of motif elaboration and rank of motif craftsmanship. At the conclusion of this chapter I have included summary charts of the most valuable results presented throughout.

Results Stamp Contextual Characteristics Analysis

Chronological and Geographical Distribution Analysis

Analysis of the distributional characteristics of stamps throughout time and space was the beginning of my research into patterns of stamp distribution. Figure 38 below shows the most basic of these distributional patterns, the chronological apportionment of the total sample set. As the sample size is quite small with only 83 artifacts, and the sample sizes within each time period even smaller, the stamps were grouped to either the Formative Period, Classic Period, or Postclassic Period for most comparisons and calculations throughout this study. In total the Formative Period is represented in the sample by a total of 19 stamps, or 22.89% of the total sample. The Classic Period is represented by 9 stamps, or 10.84% of the total sample. Finally, the Postclassic Period is represented by a total of 55 stamps, or 66.27% of the total sample.

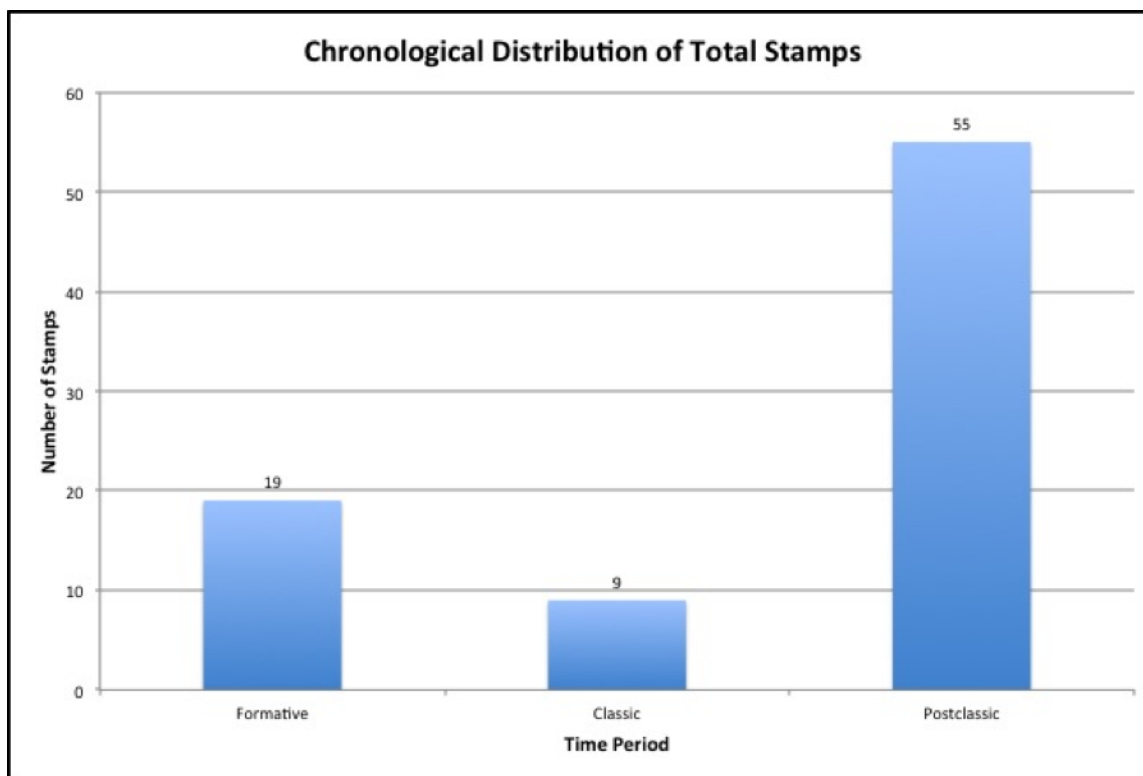


Figure 36: Chronological Distribution of Total Sample

However, unlike the results in the following sections of this chapter, I also compared the dataset in more detailed chronological terms. Figure 39 and Table 2, below, show the chronological distribution of stamps within the Early Formative, Later Formative, Early Classic, Late Classic, Early Postclassic, and Late Postclassic Periods. As shown, the largest proportion of my sample dates to the Late Postclassic Period (54.22%), followed by the Later Formative Period (20.48%). The smallest proportion of my sample dates to the Early Formative Period (2.41%). It should be noted however, that this distribution is a function of available examples, not of past human practices.

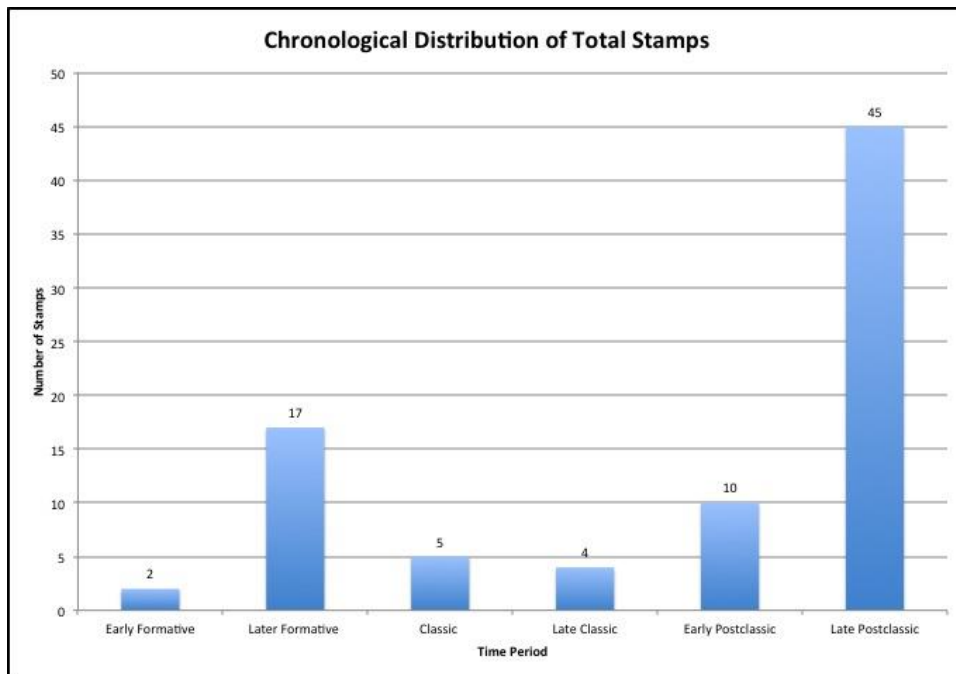


Figure 37: Extensive Chronological Distribution of Total Stamps

Table 2: Chronological Comparison of Total Stamps

Time Period	Relative Frequency (%)	Number of Stamps
<i>Total Formative Period</i>	22.89	19
Early Formative	2.41	2
Later Formative	20.48	17
<i>Total Classic Period</i>	10.84	9
Early Classic	6.02	5
Late Classic	4.82	4
<i>Total Postclassic Period</i>	66.27	55
Early Postclassic	12.05	10
Late Postclassic	54.22	45

In addition to general chronological distribution, stamps were also examined for geographic dispersal characteristics and patterns. In Figure 40 and Table 3 below, the results of these examinations are shown in relation to the overall sample. The majority of the stamps originated from the Central Mexican site of Nonoalco, as these stamps occur with a relative frequency of 22.89% within the total sample. Stamps that originated in the Central Mexican site of Chiconauhtla were second most common, comprising 20.48% of the total sample.

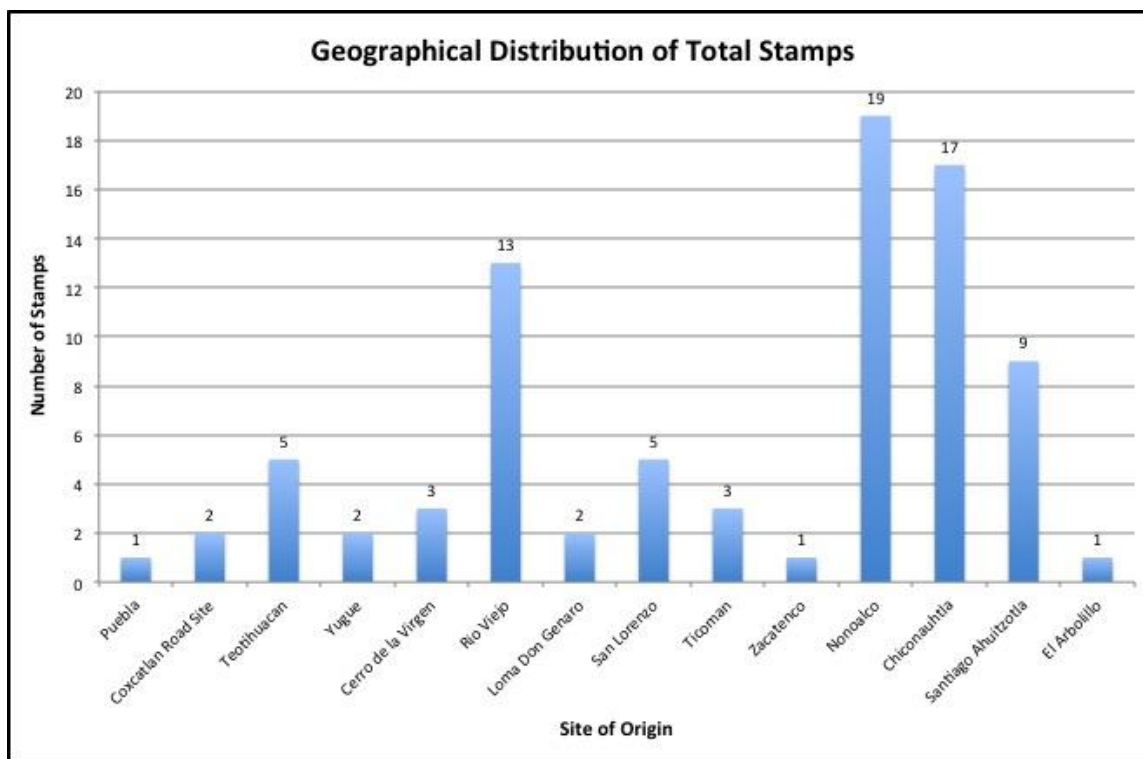


Figure 38: Geographic Distribution of Total Sample

The remaining stamps in the dataset originate from a variety of Central and Southern Mexican archaeological sites detailed in Table 3 below. As shown, the largest proportion of my sample from the coast of Oaxaca originated in Rio Viejo (15.66%), followed by Cerro de la Virgen (3.61%). Many of the Central Mexican stamps originate from small sites located near the ancient site of Tenochtitlan in Mexico City. These include stamps from El Arbolillo, Santiago Ahuizotla, Ticoman, Zacatenco, the Coxcatlan Road Site, and Teotihuacan.

Table 3: Geographical Comparison of Total Sample

Site of Stamp Origin	Relative Frequency (%)	Number of Stamps
Cerro de la Virgen	3.61	3
Chiconauhtla	20.48	17
Coxcatlan Road Site	2.41	2
El Arbolillo	1.20	1
Loma Don Genaro	2.41	2
Nonoalco	22.89	19
Puebla	1.20	1
Rio Viejo	15.66	13
San Lorenzo	6.02	5
Santiago Ahuitzotla	10.84	9
Teotihuacan	6.02	5
Ticomán	3.61	3
Yugue	2.41	2
Zacatenco	1.20	1

This geographical analysis was also taken one step further and broken down in chronological distribution within individual time periods as well. The results of this facet of the study are shown in Figure 41 below. Here the data shows that the majority of stamps originated from the site of Nonoalco during the Postclassic Period (34.55%).

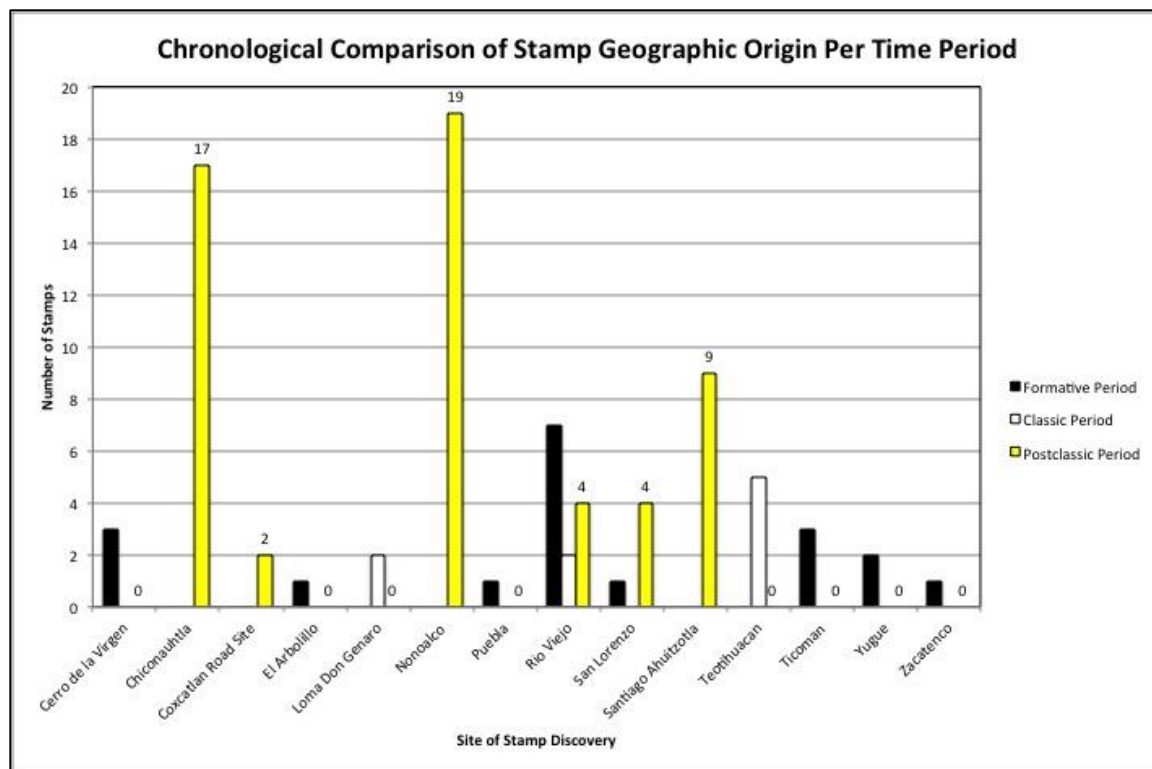


Figure 39: Chronological Comparison of Stamp Geographic Distribution

Analysis of Status-Based Context

Following geographical and spatial analysis, comparative analysis of the status context of each stamp's deposition site was conducted. This analysis was necessary since the areas in which stamps were found had stratified societies during the time periods the stamps date to. In stratified societies there exists social hierarchies in which "access [to key resources] is tightly linked to prestige" (Chazan 2011:248). Therefore, it is important to ascertain whether stamps were objects

used exclusively by any status group or if they were used by many status groups and thus not tightly regulated objects. Knowing the level or levels of the social hierarchy at which stamps occurred or were most common coupled with an understanding of the activities and lifeways associated with those hierarchical levels can help determine and understand stamping practices.

For the purposes of this study, every stamp was assigned one of five possible status context categories according to the status of the people who occupied the stamps' discovery site: Elite, Non-Elite, Ritual, Mixed, and Unknown. The term Elite is defined here as people who held the most legitimate authority, power, wealth, and access to key resources within the society (Chazan 2011; Dennehy et al. 2014). The term Non-Elite applies to any members of society that have less political power and less access to key resources than Elite members (Chazan 2011). For the purposes of this study, Ritual status-based context refers to the deposition area having been primarily associated with activities related to ritual or religion. Mixed status context is here defined as the deposition space being host to the activities and artifacts of both the Elite and Non-Elite simultaneously. This could be due to the area being equally accessible to both Elites and Non-Elites in the past or the result of depositional mixing over time. Mixed status areas largely include middens and backdirt. The stamps that were included in this study because of their legitimacy but lack reliable information about their provenience or context were placed into the remaining category of Unknown status.

Figure 42 shows the distribution of the sample over all five status-based context categories. Overall, stamps occurred most often in areas belonging to Elite spaces and activities since 43.37% of the total stamps were found in Elite contexts. The second most common depositional status were stamps from Non-Elite areas, which comprise 33.73% of the total

sample. Stamps that occurred in Ritual contexts represented the smallest section of the total sample with a relative frequency of 8.43%. Finally, stamps from both Mixed and Unknown contexts represented 10.84% of the total sample each. The numerical count and relative frequency within the overall sample for each of the five status-based context categories is displayed in Table 3 below.

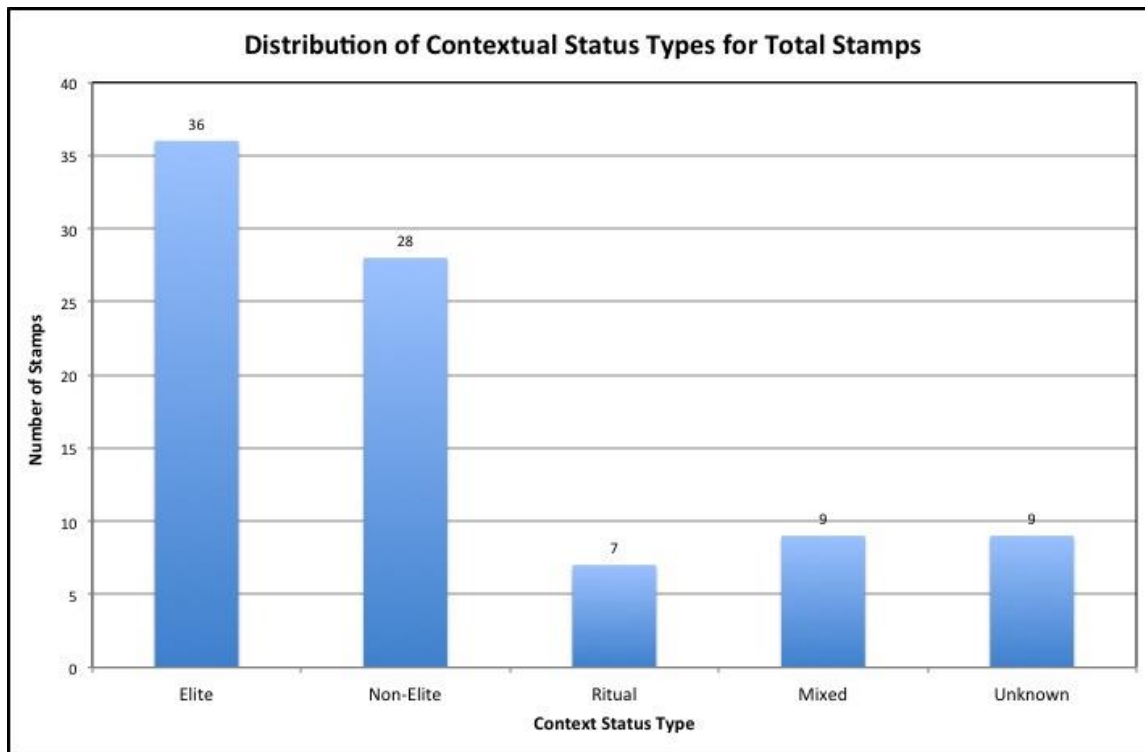


Figure 40: Distribution of Stamp Status Contexts for Total Sample

Table 4: Comparison of Status Context for Total Sample

Status Type	Relative Frequency (%)	Number of Stamps
Elite	43.37	36
Non-Elite	33.73	28
Ritual	8.43	7
Mixed	10.84	9
Unknown	10.84	9

In addition to comparisons of status contexts for the total sample, I also investigated the comparisons between stamp status contexts within individual time periods. Outlined in Figure 43 and Table 5 below, the results show that Elite stamps from the Postclassic Period were the most common, comprising 47.27% of the 55 stamps dating to the Postclassic Period. During the Formative Period, stamps from non-elite and ritual contexts were the largest proportion of my sample (26.32%). During the Classic Period, the largest proportion of my sample came from elite status contexts (66.67%).

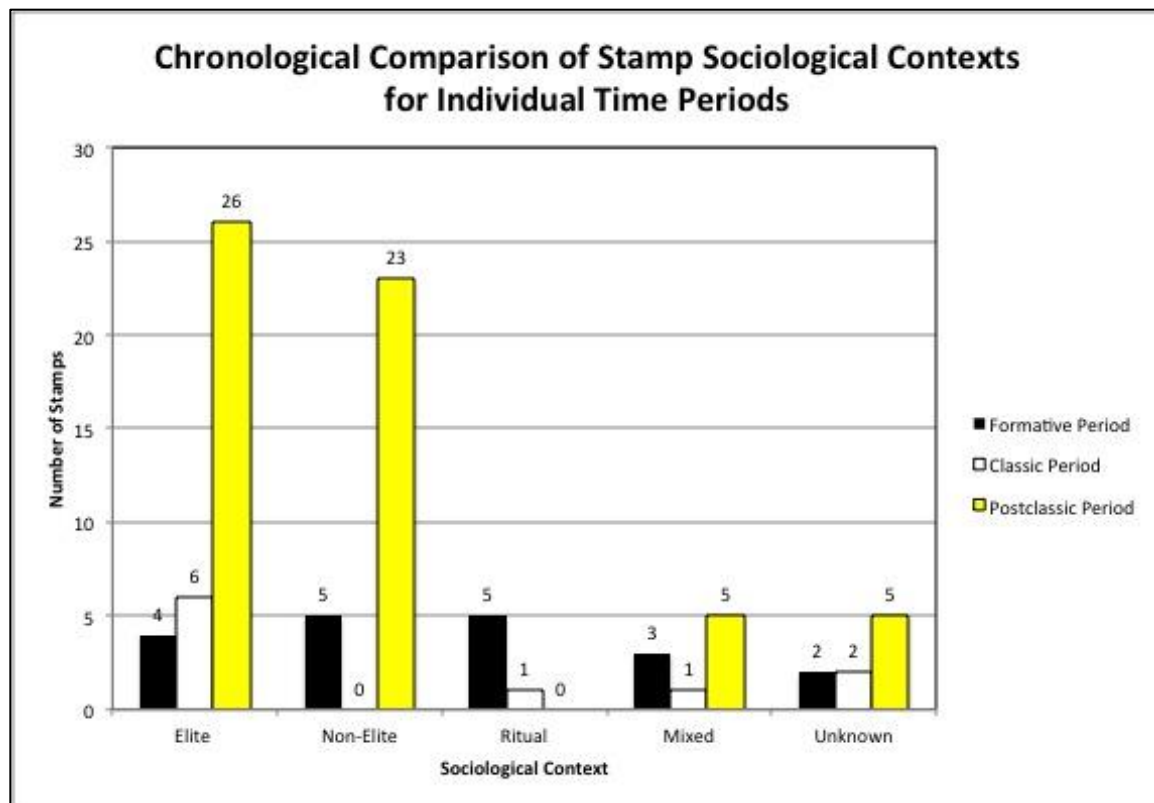


Figure 41: Chronological Comparison of Stamp Status Contexts

Table 5: Chronological Comparison of Context Status for Individual Time Periods

Status Types	Formative Period Relative Frequency (%)	Number of Formative Stamps	Classic Period Relative Frequency (%)	Number of Classic Stamps	Postclassic Period Relative Frequency (%)	Number of Postclassic Stamps
Elite	21.05	4	66.67	6	47.27	26
Non-Elite	26.32	5	0.00	0	41.82	23
Ritual	26.32	5	11.11	1	0.00	0
Mixed	15.79	3	11.11	1	9.09	5
Unknown	10.53	2	22.22	2	9.09	5

Analysis of Stamp Architectural Context

Following status-based context analysis, I assessed patterns in stamps' architectural context. This mainly refers to the activities that occurred at the site of the stamp's discovery. For the purposes of this study, architectural context was broken down into three main categories: Public spaces, Residential spaces, and Other/Unknown spaces.

Public spaces are defined here as areas that are generally open and accessible to the total population and where activities included or pertained to the general population (Charlton et al. 1991). For example, markets, public administration buildings and offices, production centers, and non-religious open access plazas would all be considered Public spaces for this study. In contrast, Residential spaces as defined here are areas in which people actually lived and performed household and domestic activities (Charlton et al. 1991). Elite houses, Non-Elite

houses, kitchens, domestic courtyards, and areas accessible strictly to neighborhood residents would all be considered Residential spaces within this study. Lastly, stamps that originated from Unknown or Mixed contexts were assigned to the category of Other/Unknown spaces.

Figure 44 and Table 5 below show the results for the distribution of the total sample of Mexican stamps according to context type. The majority of stamps by far occurred in Residential spaces, as they comprised 72.29% of the total sample. Public spaces were the second most common areas in which stamps were found with a relative frequency of 20.48% within the total sample. Finally, stamps from Other/Unknown areas represented 7.23% of the dataset.

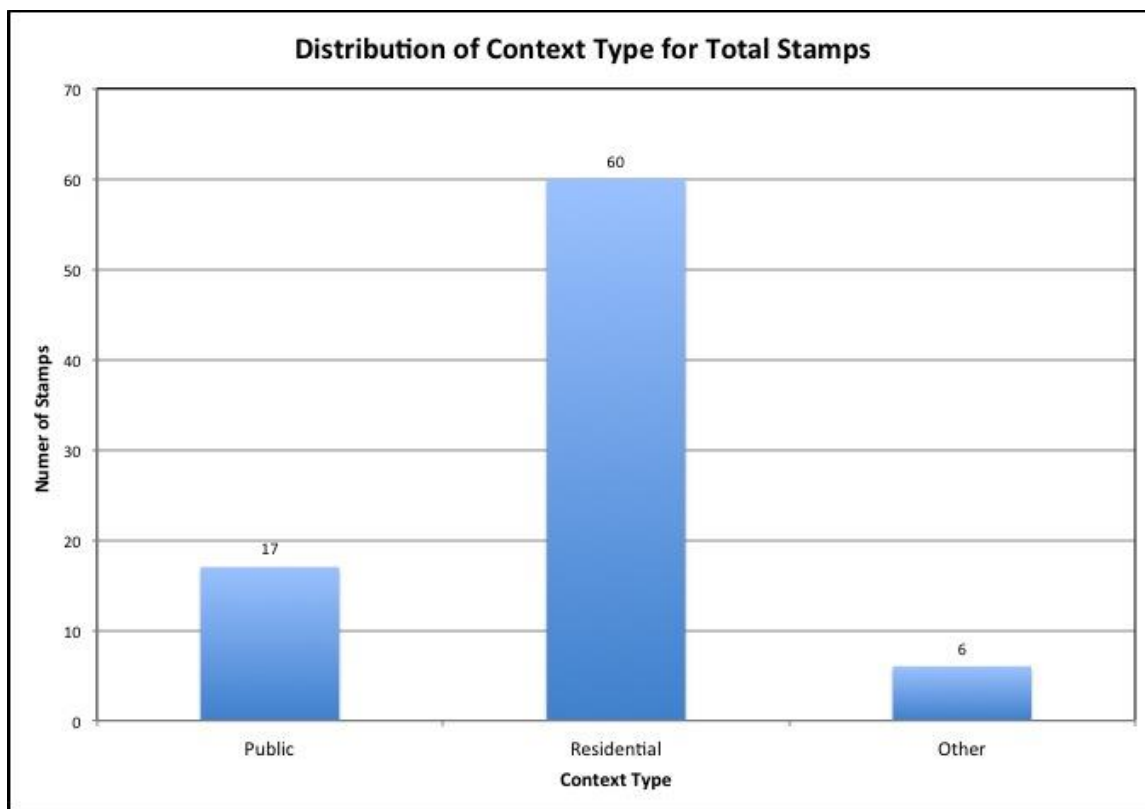


Figure 42: Distribution of Stamp Architectural Contexts for Total Sample

Table 6: Distribution of Status Context Types for Total Sample

Context Type	Relative Frequency (%)	Number of Stamps
Public	20.48	17
Residential	72.29	60
Other	7.23	6

Further analysis concentrated on a more detailed breakdown of stamp context types chronologically, as shown in Figure 45 and Table 6 below. Here it is shown that the most common context was Residential areas dating to the Postclassic Period (85.45% of all Postclassic stamps and 56.63% of the total sample). The least common occurring context was Unknown contexts during the Classic Period, for which there were no stamps. During the Formative Period, the largest portion of the dataset originated in Public architectural contexts (52.63%). During the Classic Period, the largest portion of my sample came from Public architectural contexts (55.56%). Within the Postclassic Period, only 3.64% of stamps occurred in Public Contexts. However, stamps from Residential area contexts comprise 85.45% of Postclassic stamps and 56.63% of total stamps.

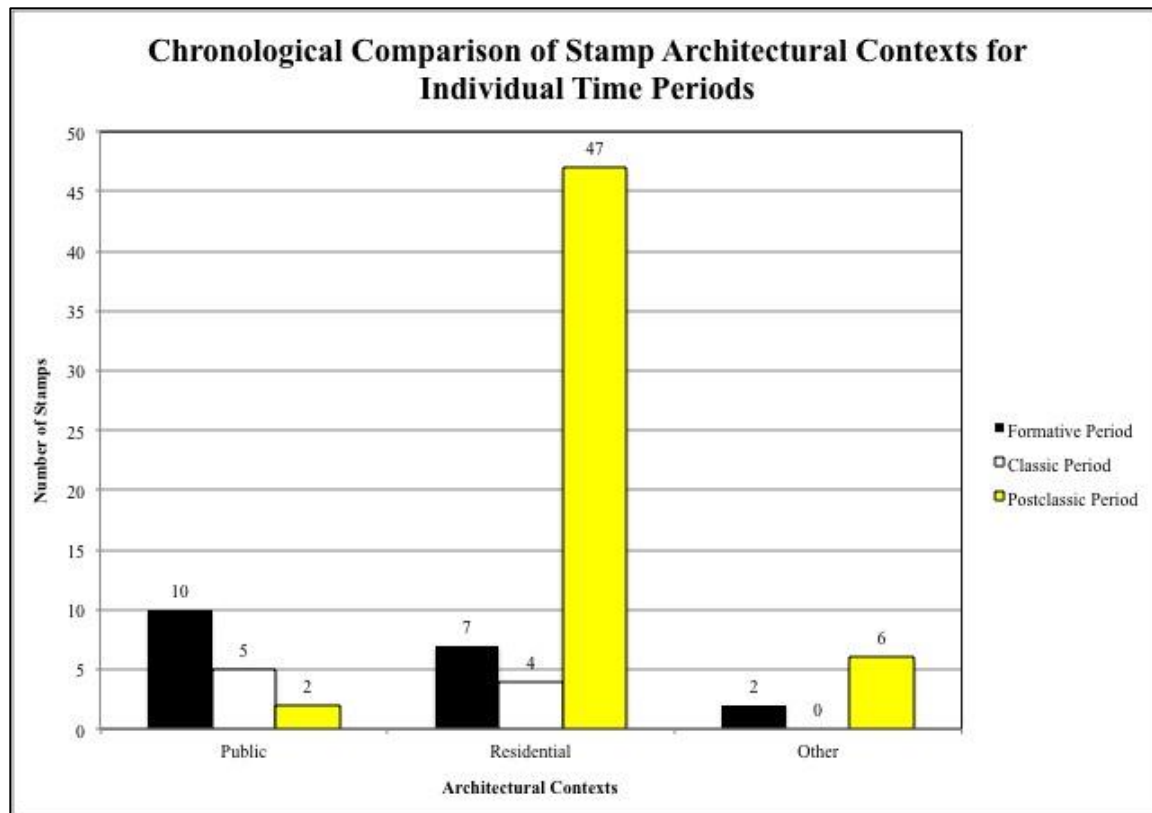


Figure 43: Chronological Comparison of Stamp Architectural Contexts

Table 7: Chronological Comparison of Context for Individual Time Periods

Context Type	Formative Period Relative Frequency (%)	Number of Stamps	Classic Period Relative Frequency (%)	Number of Stamps	Postclassic Period Relative Frequency (%)	Number of Stamps
Public	52.63	10	55.56	5	3.64	2
Residential	36.84	7	44.44	4	85.45	47
Other	10.53	2	0.00	0	10.91	6

Results of Iconographic Analysis

Stage Two of this study shifted from distributional patterns in stamp provenience characteristics to distributional patterns in stamp iconographic characteristics. This multidisciplinary endeavor first required the identification of iconographic motifs depicted on the stamps in this sample set. Following this, a typology was created in order to organize iconographic information in such a way as to effectively identify possible patterns. Both the identified and unidentifiable stamps were then sorted into the appropriate categories of the classification system. This process was discussed in detail in Chapter Two: Materials and Methodology.

The devised motif classification is a multi-level system that includes seven primary motif categories and at least one secondary category per stamp; in applicable cases motifs were classified into tertiary categories. These categories aid in identifying the overall scope of stamp motifs as well as patterns in the spatial and chronological distributions of motif designs. The primary motif categories are Metaphysical Symbols, Nature, Objects, Human, Geometric, Fragment, and Blank. As many Mesoamerican metaphysical symbols are nature-based, only nature symbols that were undoubtedly religious or Metaphysically derived were sorted into the Metaphysical Symbols category (Markman and Markman 1994). The remaining nature-based symbols were sorted into Nature. Furthermore, the Fragment category refers to those artifacts that were too fragmented or deteriorated to identify the design motif.

As with the analysis pertaining to patterns of stamp provenience, analysis of the chronological distribution of stamp motifs was conducted on the total sample as well as within each of the three main time periods. These investigations included examining the primary motif

category, secondary motif category, and tertiary motif category throughout time, in terms of architectural context type, and status-based context type. They also include investigations into the elaboration of motif designs and their level of craftsmanship. For a comprehensive explanation of all motif categories, elaboration, and craftsmanship definitions and characteristics please see Chapter 2: Methodology. For a more detailed explanation of motif design category identification, please see Chapter 2: Materials and Methodology.

Chronological Distribution of Primary Motif Categories

In order to compartmentalize the iconographic analysis and make it more effective for pattern identification, the characteristics of primary motif categories were examined first, followed by secondary categories, tertiary categories, elaboration, and finally craftsmanship. In Figure 46 and Table 7 below the results of my examinations into the chronological distribution of primary motif categories within the total sample is presented.

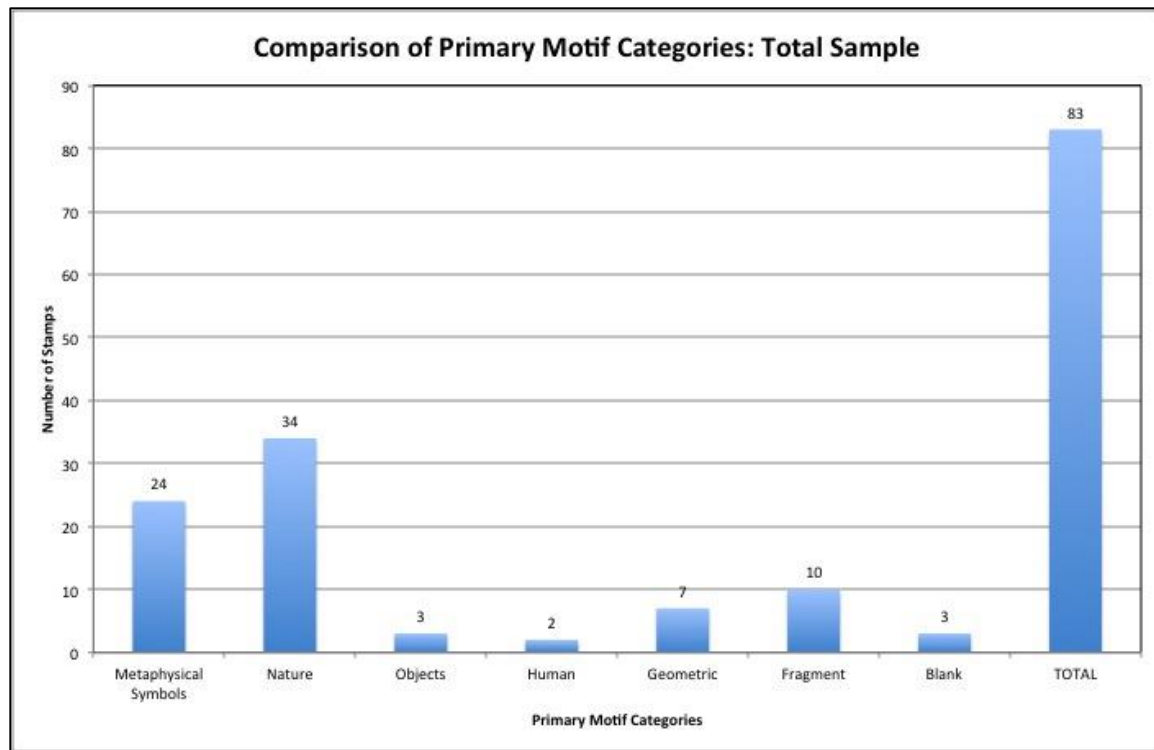


Figure 44: Distribution of Stamp Primary Motif Categories for Total Sample

Figure 46 shows that the most common primary motif category was Nature motifs, as it represents 40.96% of the total sample. Metaphysical Symbol primary motifs were second-most common, comprising 28.92% of the total sample. Following these, stamps too fragmented to identify represent 12.05% and stamps with Geometric motif designs represent 8.43% of the sample. Both stamps with Object-themed motifs and Blank stamps with no motifs comprise 3.61% of the total dataset each. Finally, Human based motifs make up only 2.41% of the total sample.

Table 8: Chronological Comparison of Primary Motif Categories: Total Sample

Primary Main Category	Number of Stamps	Relative Frequency (%)
Metaphysical Symbols	24	28.92
Nature	34	40.96
Objects	3	3.61
Human	2	2.41
Geometric	7	8.43
Fragment	10	12.05
Blank	3	3.61
TOTAL	83	100%

In addition to overall chronological distribution of primary motif categories, the chronological distribution of motifs within individual time periods was also examined. The results of those examinations are displayed in Figure 47 and Table 8 below. Figure 47 shows that the most common primary motif was Nature motifs from the Postclassic Period, as those stamps represent 45.45% of Postclassic Period stamps and 30.12% of the total dataset. The least common primary motifs were Blank and Human motifs during the Postclassic Period, as there are no such stamps in this sample.

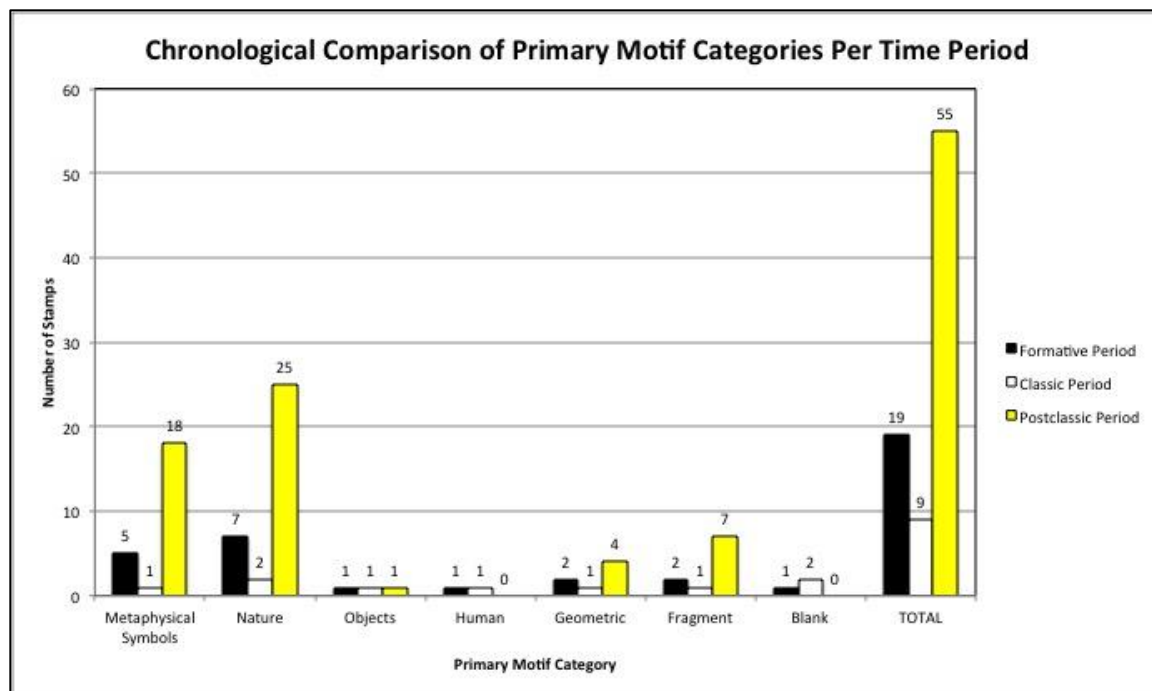


Figure 45: Chronological Comparison of Stamp Primary Motif Distribution

During the Formative Period, the largest proportion of my sample was Nature motifs (36.84%), followed by Metaphysical Symbol motifs (26.32%). During the Classic Period, Table 8 shows that Nature and Blank motifs comprise the largest portion of my sample (22.22%). During the Postclassic Period, the largest primary motif portion of my sample was Nature motifs (45.45%), followed by Metaphysical Symbol motifs (32.73%).

Table 9: Chronological Comparison of Primary Motif Categories Per Time Period

Motif Primary Category	Number of Formative Period Stamps	Formative Period Relative Frequency (%)	Number of Classic Period Stamps	Classic Period Relative Frequency (%)	Number of Postclassic Period Stamps	Postclassic Period Relative Frequency (%)
Metaphysical	5	26.32	1	11.11	18	32.73
Symbols						
Nature	7	36.84	2	22.22	25	45.45
Objects	1	5.26	1	11.11	1	1.82
Human	1	5.26	1	11.11	0	0.00
Geometric	2	10.53	1	11.11	4	7.27
Fragment	2	10.53	1	11.11	7	12.73
Blank	1	5.26	2	22.22	0	0.00

Analysis of Primary Motif Category Status Context

Elite Status Motifs

Figure 48 and Table 9 below display results from investigation into how primary motif categories compare according to the status-based context within the total sample. The status context types of Elite, Non-Elite, Ritual, Mixed, and Unknown and their definitions remain the same as for Stage One of this study. As seen in Figure 48, the most common primary motif discovered in Elite status contexts were Nature based motifs, as they comprise 19.28% of all

Elite status stamps. The second most common Elite status primary motif was Metaphysical Symbols, representing 13.25% of all Elite stamps.

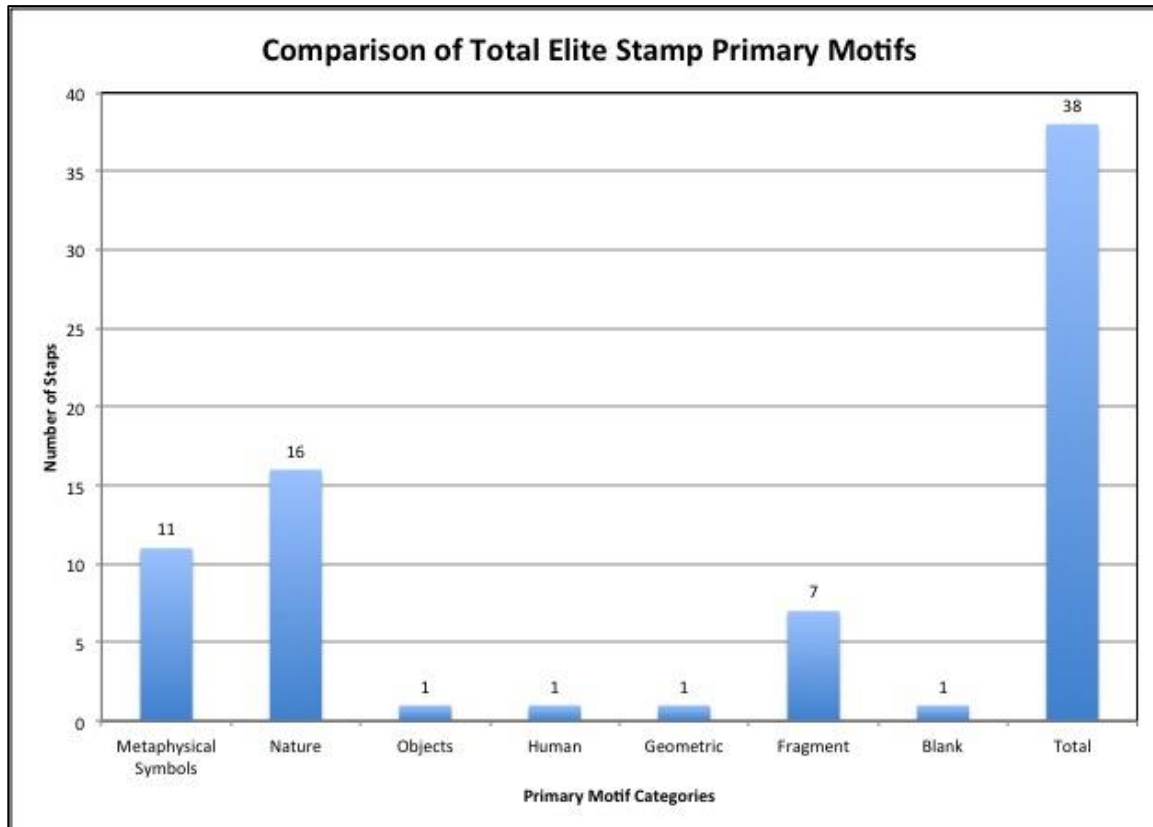


Figure 46: Distribution of Elite Context Stamp Primary Motifs for Total Sample

Table 10: Chronological Comparison of Total Elite Stamp Primary Motifs

Elite Motif Categories	Number of Elite Stamps	Relative Frequency (%)
Metaphysical Symbols	11	13.25
Nature	16	19.28
Objects	1	1.20
Human	1	1.20
Geometric	1	1.20
Fragment	7	8.43
Blank	1	1.20

As with the previous investigations, the chronological distribution of primary motif categories from elite status contexts was also calculated within the three main time periods. These results are displayed in Figure 49 and Table 10 below. There it can be seen that the most common of the Elite status-based primary motifs was Nature motifs within the Postclassic Period, which make up 24.45% of all Postclassic Period stamps and 16.87% of the total dataset.

Of all Formative Period stamps discovered in Elite status contexts, the largest proportion of my sample display Metaphysical Symbols (10.53%). Of all Classic Period stamps discovered in elite status contexts, the largest proportion of my sample was too fragmented to identify (33.33%). Of all Elite status stamps dating to the Postclassic Period, Metaphysical Symbols constituted the largest portion of the sample (14.55%), followed by those too fragmented to identify (7.27%).

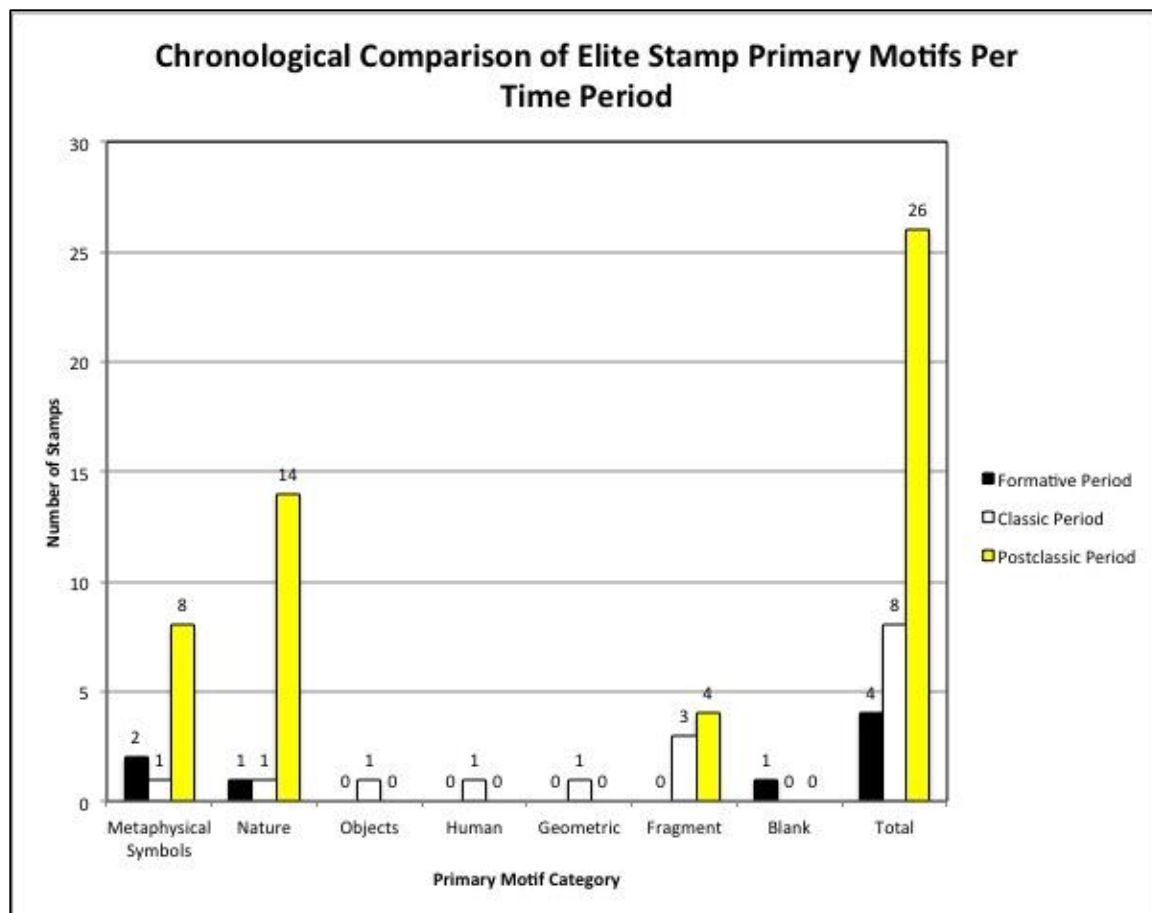


Figure 47: Chronological Comparison of Primary Motifs on Stamps from Elite Contexts

Table 11: Chronological Comparison of Elite Stamp Primary Motifs Per Time Period

Elite Motif Categories	Number of Formative Period Stamps	Relative Frequency (%)	Number of Classic Period Stamps	Relative Frequency (%)	Number of Postclassic Period Stamps	Relative Frequency (%)
Metaphysical	2	10.53	1	11.11	8	14.55
Symbols						
Nature	1	5.26	1	11.11	14	25.45
Objects	0	0.00	1	11.11	0	0.00
Human	0	0.00	1	11.11	0	0.00
Geometric	0	0.00	1	11.11	0	0.00
Fragment	0	0.00	3	33.33	4	7.27
Blank	1	5.26	0	0.00	0	0.00

Non-Elite Status Motifs

Figure 50 and Table 11 below display the results of calculations into the distribution of primary motif categories within Non-Elite status contexts. The most common Non-Elite status primary motif was Metaphysical Symbols, which occurred with a relative frequency of 14.46% within the total sample. Nature motifs were second-most common in Non-Elite contexts, representing 12.05% of the complete dataset.

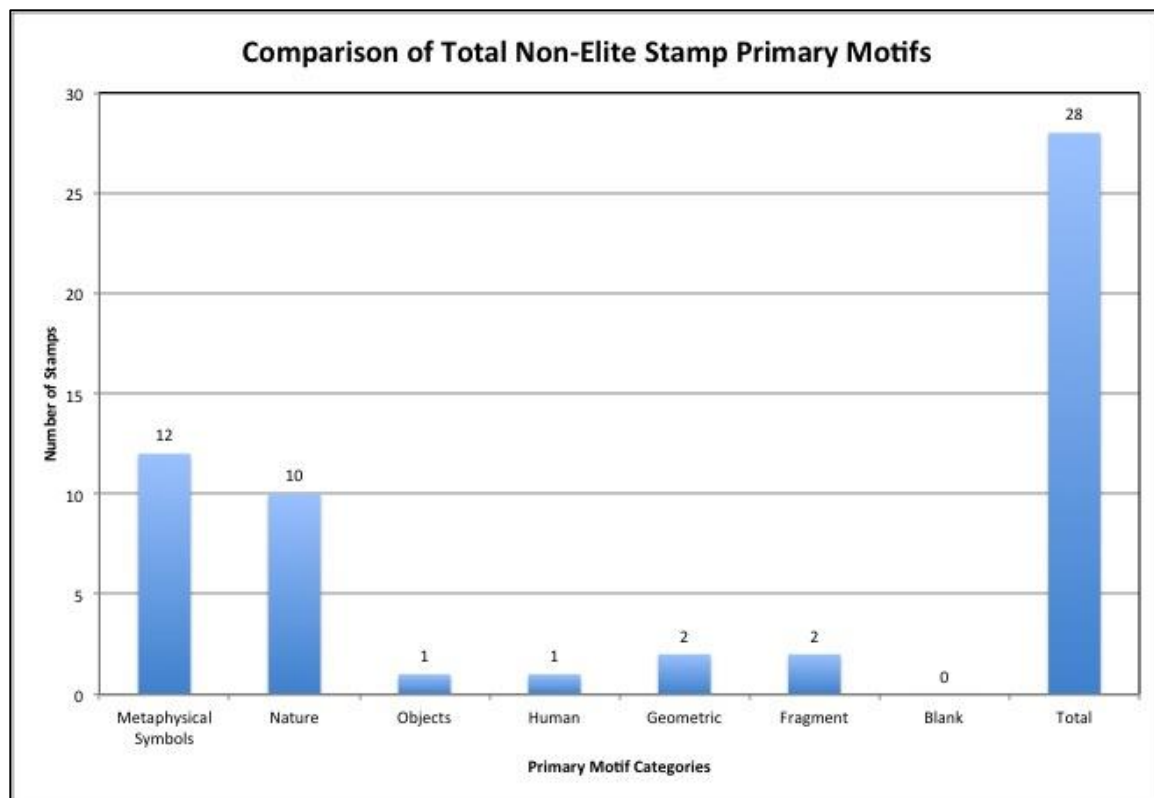


Figure 48: Distribution of Primary Motifs of Stamps from Non-Elite Contexts for Total Sample

Table 12: Comparison of Total Non-Elite Stamp Primary Motifs

Non-Elite Motifs	Number of Non-Elite Stamps	Relative Frequency (%)
Metaphysical Symbols	12	14.46
Nature	10	12.05
Objects	1	1.20
Human	1	1.20
Geometric	2	2.41
Fragment	2	2.41
Blank	0	0.00

The results of investigations into the chronological distribution of Non-Elite status primary motif categories within individual time periods can be found in Figure 51 and Table 12 below. Here the data shows that the most common Non-Elite status primary motif was Metaphysical Symbol motifs dating to the Postclassic Period. These stamps make up 18.18% of all Postclassic Period stamps and 12.05% of the total dataset.

During the Formative Period, Metaphysical Symbols and Nature motifs were most common in Non-Elite contexts (10.53%), followed by Human motifs (5.26%). No non-elite status context stamps dating to the Classic Period are present in the total dataset. During the Postclassic Period, Metaphysical Symbols constituted the largest portion of my sample (18.18%), followed by Nature motifs (14.55%).

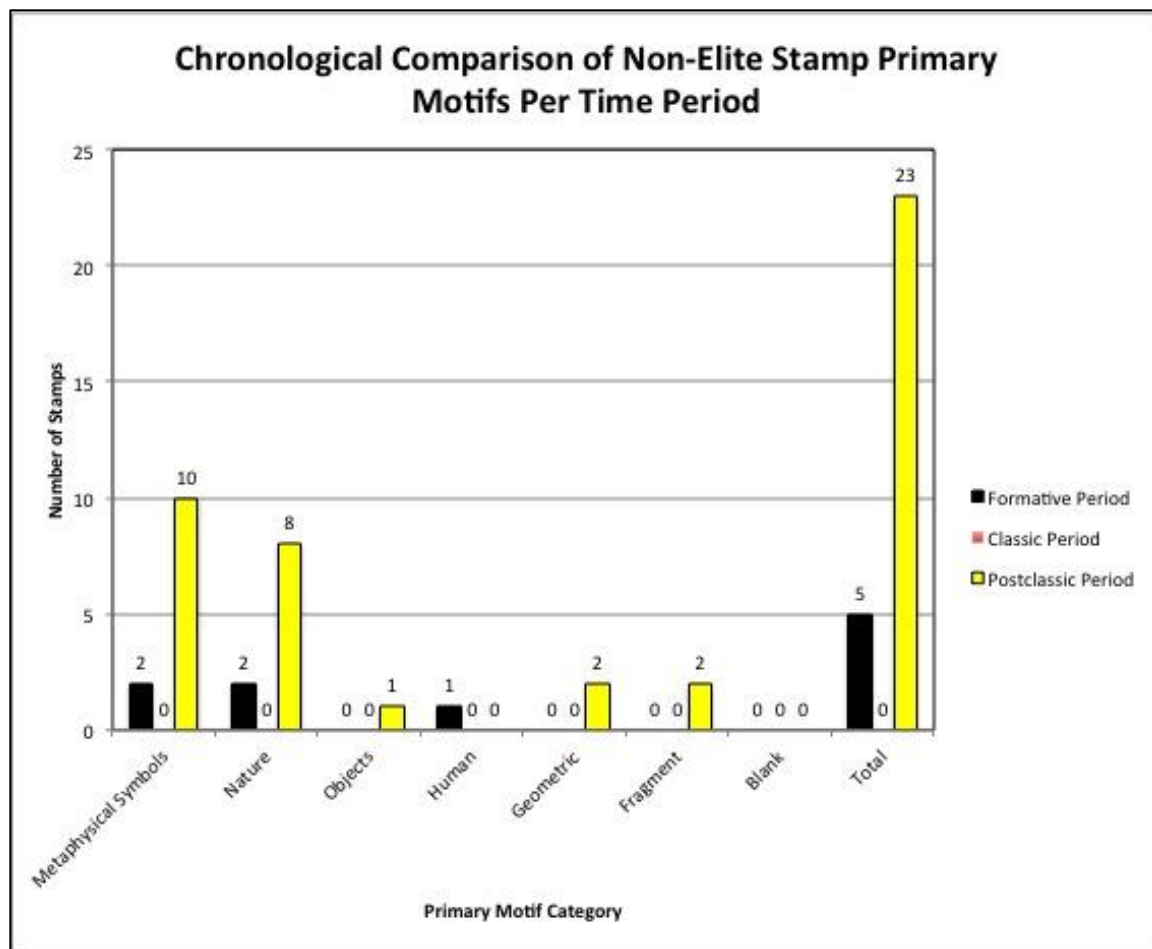


Figure 49: Chronological Comparison of Primary Motifs of Stamps from Non-Elite Contexts

Table 13: Chronological Comparison of Non-Elite Stamp Primary Motifs Per Time Period

Primary Motif Category	Number of Formative Period Non-Elite Stamps	Relative Frequency within Formative (%)	Number of Classic Period Non-Elite Stamps	Relative Frequency within Classic (%)	Number of Postclassic Period Non-Elite Stamps	Relative Frequency within Postclassic (%)
Metaphysical	2	10.53	0	0	10	18.18
Symbols						
Nature	2	10.53	0	0	8	14.55
Objects	0	0.00	0	0	1	1.82
Human	1	5.26	0	0	0	0.00
Geometric	0	0.00	0	0	2	3.64
Fragment	0	0.00	0	0	2	3.64
Blank	0	0.00	0	0	0	0.00

Ritual Status Motifs

Figure 52 and Table 13 below display the results of calculations into the distribution of primary motif categories within Ritual status contexts. The most common of Ritual status motifs were stamps with Nature based main motifs, which make up 3.61% of the total sample. In addition, Fragmented motif stamps from Ritual context comprise 2.41% of all stamps and Metaphysical Symbol motifs comprise 1.2% of all stamps. No stamps included in this study depicting Object, Human, Geometric, or Blank motifs originated in Ritual status contexts.

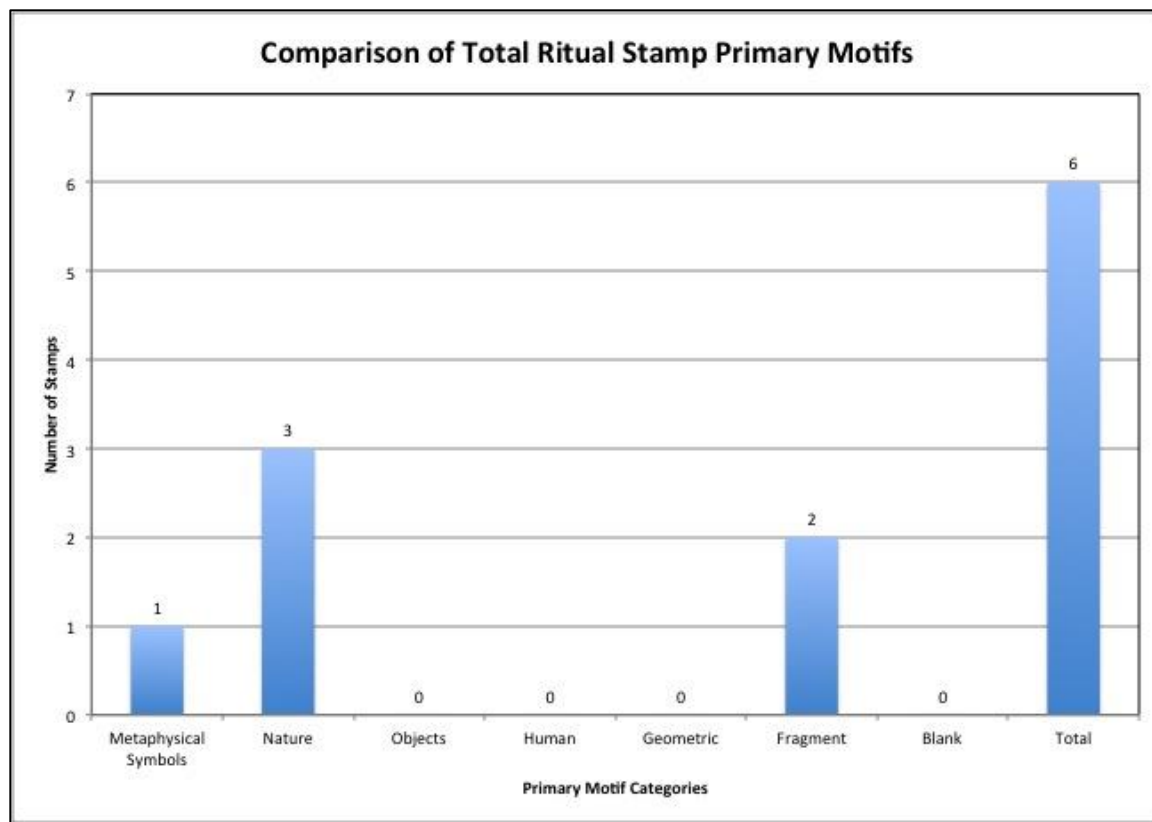


Figure 50: Distribution of Primary Motifs of Stamps from Ritual Contexts for Total Sample

Table 14: Comparison of Total Ritual Stamp Primary Motifs

Primary Motif Category	Number of Ritual Stamps	Relative Frequency (%)
Metaphysical Symbols	1	1.20
Nature	3	3.61
Objects	0	0.00
Human	0	0.00
Geometric	0	0.00
Fragment	2	2.41
Blank	0	0.00

As with previous calculations, the distribution of primary motif categories belonging to Ritual status contexts according to individual time periods was also investigated. Figure 53 and Table 14 below display the results of those calculations. Within the Formative Period, the largest proportion of my sample were Nature motifs from Ritual status contexts (10.53%) and fragmented stamps from ritual status contexts (10.53%).

Within the Classic Period, only 11.11% of stamps originated from a Ritual status context, and they were classified as portraying Nature motifs. No stamps at all were found in Ritual status contexts during the Postclassic Period.

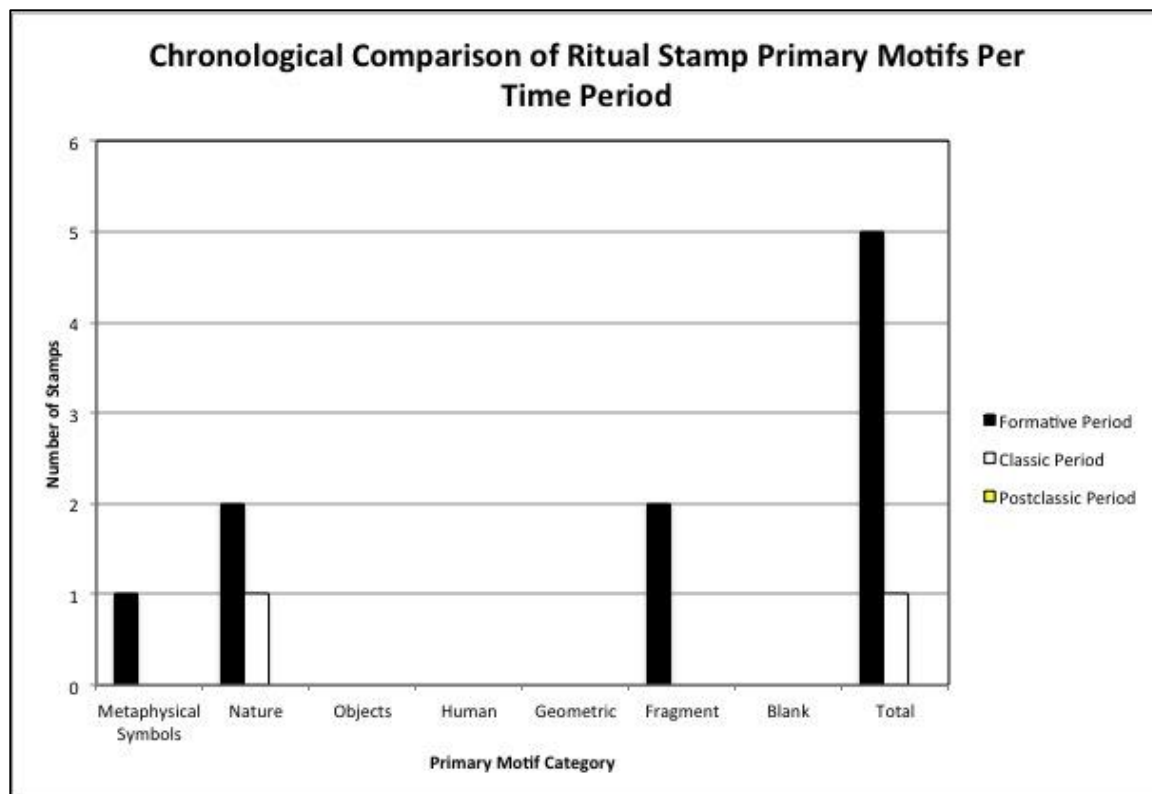


Figure 51: Chronological Comparison of Primary Motifs of Stamps from Ritual Contexts

Table 15: Chronological Comparison of Ritual Stamp Primary Motifs Per Time Period

Primary Motif Category	Number of Formative Period Ritual Stamps	Relative Frequency within Formative (%)	Number of Classic Period Ritual Stamps	Relative Frequency within Classic (%)	Number of Postclassic Period Ritual Stamps	Relative Frequency within Postclassic (%)
Metaphysical	1	5.26	0	0.00	0	0
Symbols						
Nature	2	10.53	1	11.11	0	0
Objects	0	0.00	0	0.00	0	0
Human	0	0.00	0	0.00	0	0
Geometric	0	0.00	0	0.00	0	0
Fragment	2	10.53	0	0.00	0	0
Blank	0	0.00	0	0.00	0	0

Mixed Status Motifs

Figure 54 and Table 15 below display the results of calculations into the distribution of primary motif categories within Mixed status contexts. Overall, out of the four stamps originating from Mixed status contexts included in this sample, ones depicting Nature motifs comprise 2.41% of the total sample. Geometric motifs from Mixed status contexts also comprise 2.41% of the total sample.

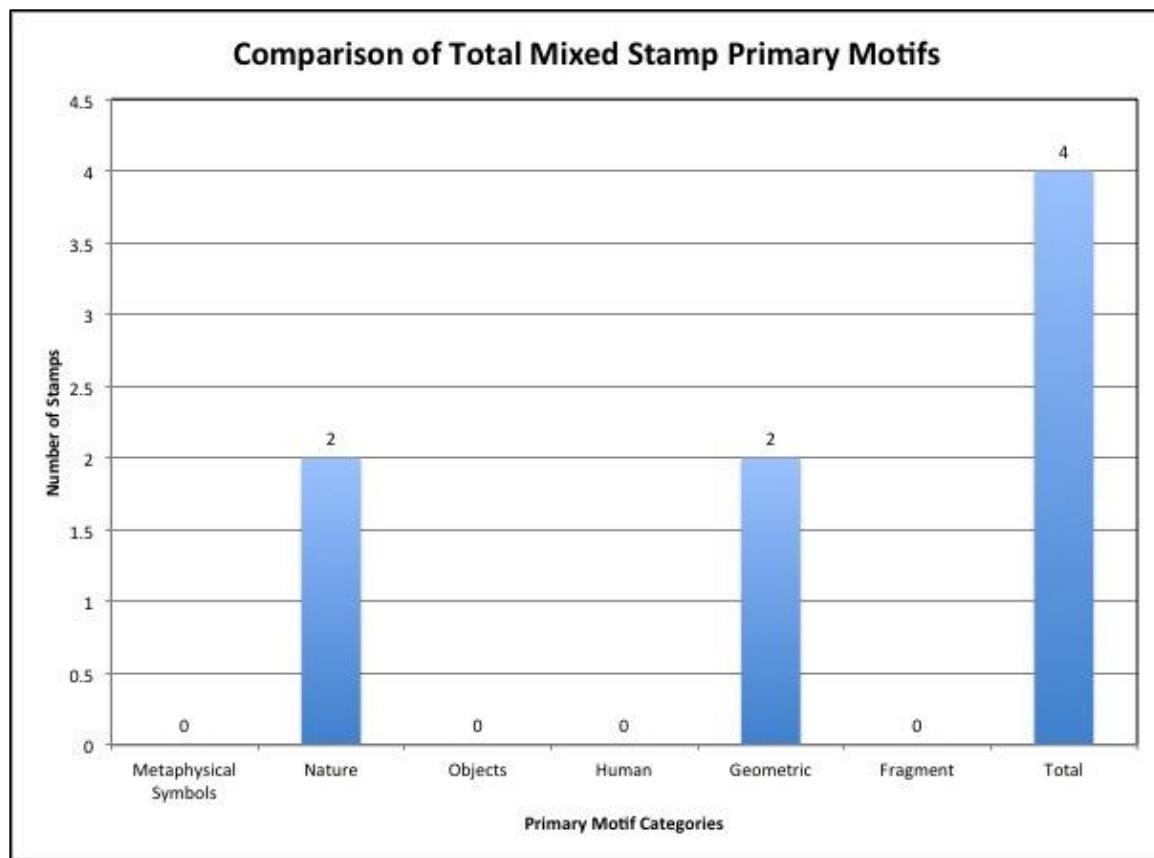


Figure 52: Distribution of Primary Motifs of Stamps from Mixed Contexts for Total Sample

Table 16: Comparison of Total Mixed Stamp Primary Motifs

Primary Motif Category	Number of Mixed Stamps	Relative Frequency (%)
Metaphysical Symbols	0	0.00
Nature	2	2.41
Objects	0	0.00
Human	0	0.00
Geometric	2	2.41
Fragment	0	0.00

The results of calculations regarding the distribution of primary motifs from Mixed status contexts within individual time periods is displayed in Figure 55 and Table 16 below. The most common primary motif from Mixed status contexts was Nature motifs dating to the Formative Period (10.53% of all Formative Period stamps). The remaining Mixed status context stamps consisted of Geometric motifs. Mixed status Geometric motif stamps represent 5.26% of all Formative Period stamps and 1.82% of all Postclassic Period stamps.

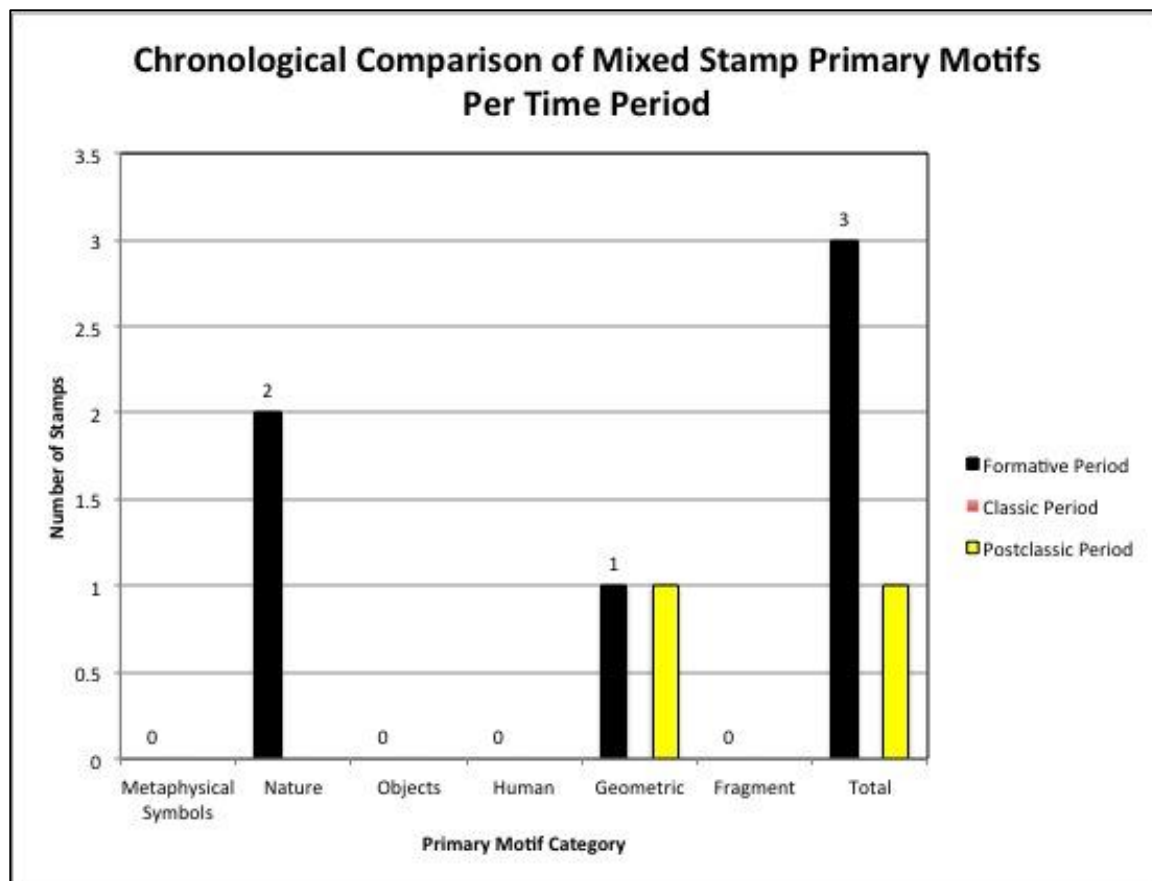


Figure 53: Chronological Comparison of Primary Motifs of Stamps from Mixed Contexts

Table 17: Chronological Comparison of Mixed Stamp Primary Motifs Per Time Period

Primary Motif Category	Number of Mixed Formative Stamps	Relative Frequency within Formative (%)	Number of Mixed Classic Stamps	Relative Frequency within Classic (%)	Number of Mixed Postclassic Stamps	Relative Frequency within Postclassic (%)
Metaphysical	0	0.00	0	0	0	0.00
Symbols						
Nature	2	10.53	0	0	0	0.00
Objects	0	0.00	0	0	0	0.00
Human	0	0.00	0	0	0	0.00
Geometric	1	5.26	0	0	1	1.82
Fragment	0	0.00	0	0	0	0.00

Unknown Status Motifs

The final status type that was examined was stamps from Unknown contexts. Figure 56 and Table 17 below display the results of calculations into the distribution of primary motif categories within these Unknown status contexts. Overall, the most common primary motif from Unknown contexts were those with Nature and Geometric motifs. These stamps each represent 2.41% of the total dataset. In addition, Unknown status stamps too fragmented to identify or portraying Object motifs each represent 1.2% of the total dataset. No stamps included in this sample depicting Metaphysical Symbols, Human, or Blank motifs originated in Unknown contexts.

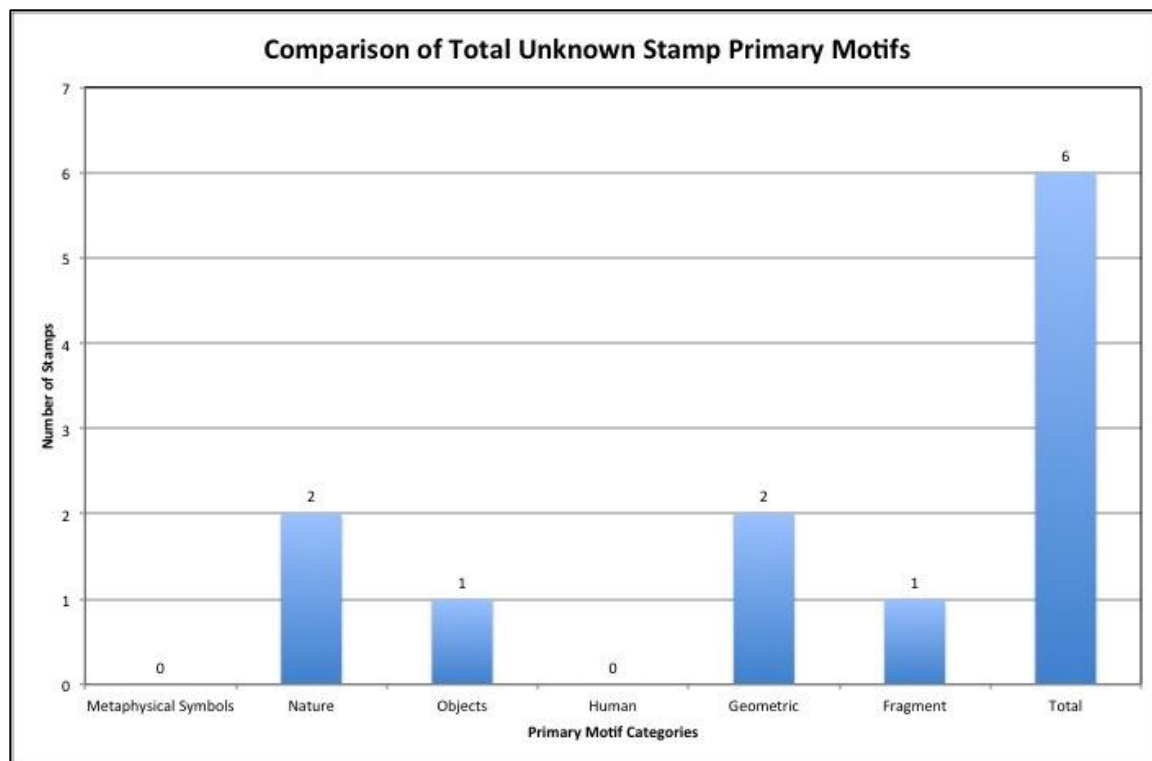


Figure 54: Distribution of Primary Motifs of Stamps from Unknown Contexts

Table 18: Comparison of Total Unknown Stamp Primary Motifs

Primary Motif Category	Number of Unknown Stamps	Relative Frequency (%)
Metaphysical Symbols	0	0.00
Nature	2	2.41
Objects	1	1.20
Human	0	0.00
Geometric	2	2.41
Fragment	1	1.20

The distribution of primary motif categories from Unknown contexts was also chronologically examined within individual time periods. In Figure 57 and Table 18 below, the results of this examination are displayed. Here the data shows that the most common Unknown status motif was stamps with Nature motifs dating to the Postclassic Period. These stamps represent 3.64% of all Postclassic Period stamps and 2.41% of the total dataset.

During the Formative Period, Unknown status stamps depicting Object and Geometric motifs each comprise 1.2% of stamps within the time period. No other primary motif category from a Formative Period Unknown status context was present in this sample. No stamps included in this sample originated from Unknown status contexts dating to the Classic Period.

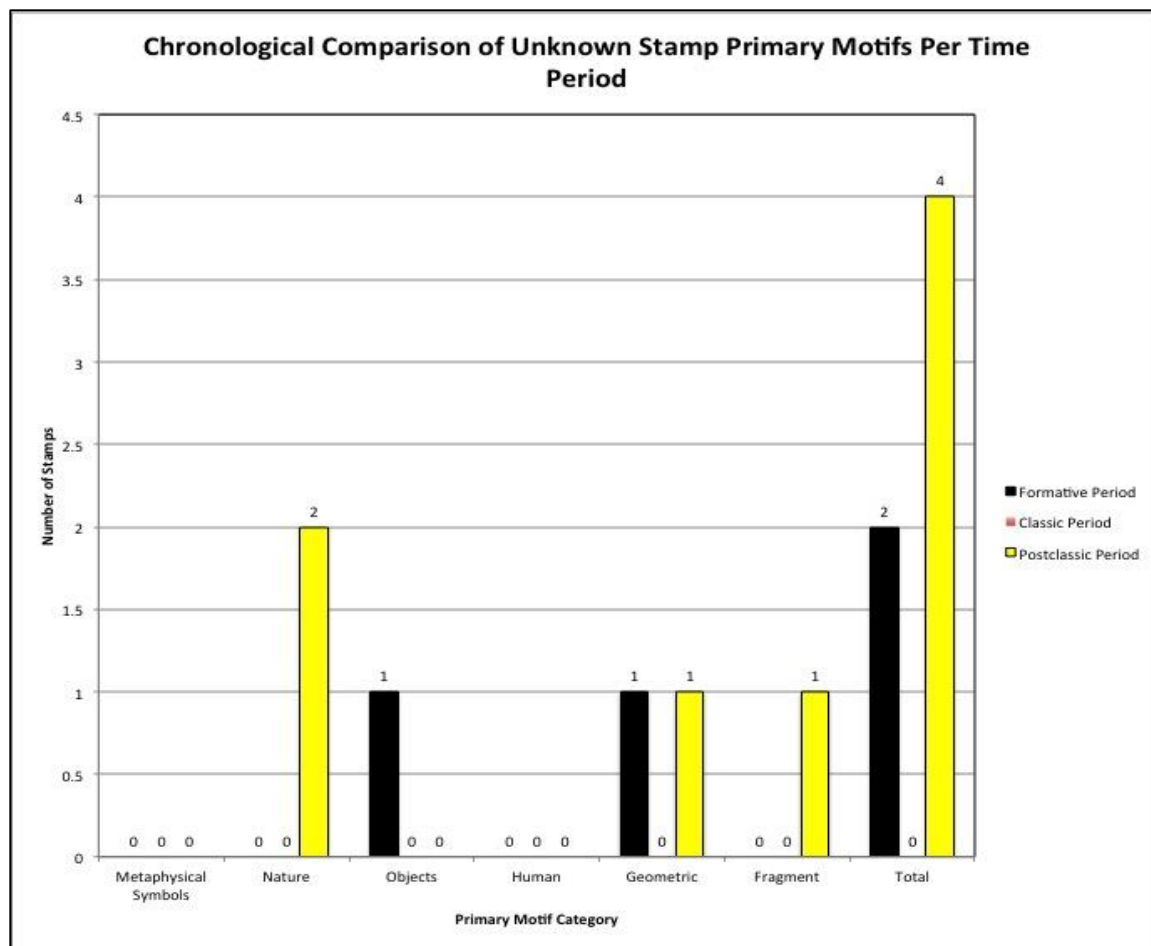


Figure 55: Chronological Comparison of Primary Motifs of Stamps from Unknown Contexts

Table 19: Chronological Comparison of Unknown Stamp Primary Motifs Per Time Period

Primary Motif Category	Number of Unknown Formative Stamps	Relative Frequency within Formative (%)	Number of Unknown Classic Stamps	Relative Frequency within Classic (%)	Number of Unknown Postclassic Stamps	Relative Frequency within Postclassic (%)
Metaphysical	0	0.00	0	0	0	0.00
Symbols						
Nature	0	0.00	0	0	2	3.64
Objects	1	1.20	0	0	0	0.00
Human	0	0.00	0	0	0	0.00
Geometric	1	1.20	0	0	1	1.82
Fragment	0	0.00	0	0	1	1.82

Chronological Distribution Analysis of Motif Secondary Categories

In order to obtain a thoroughly detailed account of stamp motif distributional patterns, analyses were conducted on motif secondary categories. The inclusion of secondary categories and classification of motifs within them allows for more precise identification of distributional patterns. Primary motif categories that include secondary categories are Metaphysical Symbols, Nature, Objects, Human, and Geometric motifs. It was not necessary or beneficial to include secondary categories for stamps classified as Fragmented or Blank. The distributional characteristics of motif secondary categories were examined for the total sample as well as

individually within the three main time periods. All categories and secondary categories were induced from the sample. For a comprehensive explanation of the identification of motif secondary categories please see Chapter 4: Discussion.

Metaphysical Symbol Motif Secondary Categories

The first examination of motif secondary categories was carried out on Metaphysical Symbol motifs within the total sample, the results of which are found in Figure 58 and Table 19 below. The Metaphysical Symbols motif category contains five secondary categories: Nature/Astronomy, Numbers, Deities, Masked Figures, and Cosmograms. The most common Metaphysical secondary category was Deities, as stamps with Deity motifs represent 10.84% of the total dataset. Second most common was the Nature/Astronomy secondary category, which comprises 8.43% of the total sample.

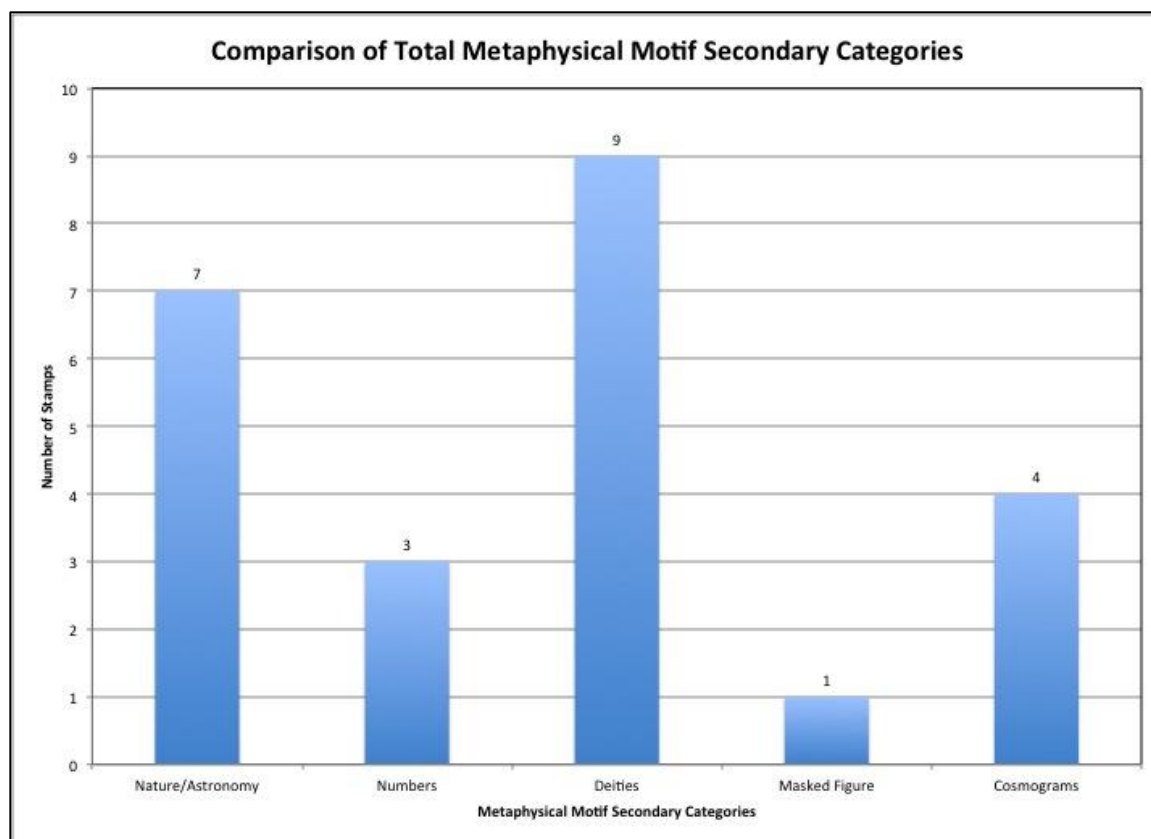


Figure 56: Distribution of Metaphysical Motif Secondary Categories for Total Sample

Table 20: Comparison of Total Metaphysical Motif Secondary Categories

Metaphysical Symbols Secondary Categories	Number of Stamps	Relative Frequency (%)
Nature/Astronomy	7	8.43
Numbers	3	3.61
Deities	9	10.84
Masked Figure	1	1.20
Cosmograms	4	4.82

In addition to overall distributional analysis, Metaphysical Symbol secondary categories were also examined within each individual time period. The results of these examinations can be seen in Figure 59 and Table 20 below. Here the data shows that the most commonly found Metaphysical Symbol secondary category was Deity motif stamps dating to the Postclassic Period as they represent 10.84% of the total sample and 16.36% of all Postclassic Period stamps.

During the Formative Period, Nature/Astronomy and Numbers themed stamp motifs were equally common, comprising 10.53% of all Formative Period stamps each. During the Classic Period, the only Metaphysical Symbol secondary category present was a stamp depicting a Numbers motif, which makes up 11.11% of all Classic Period Stamps.

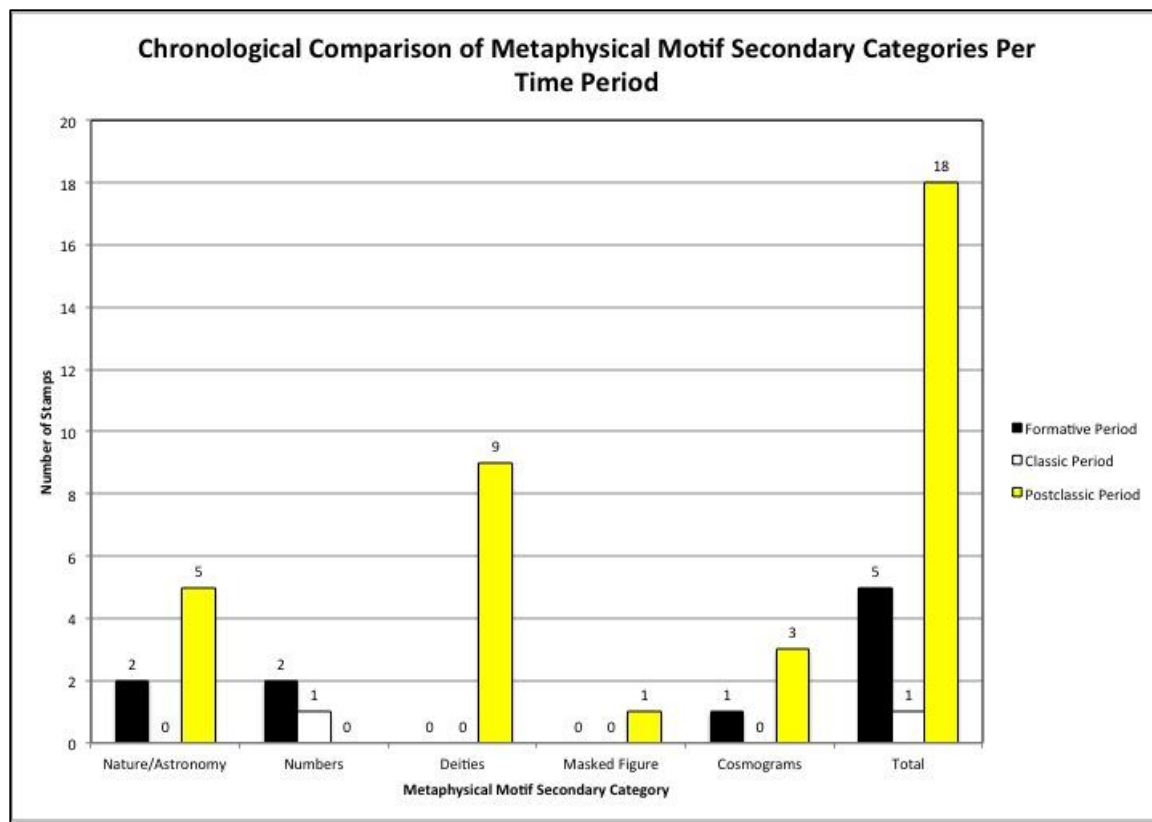


Figure 57: Chronological Comparison of Metaphysical Secondary Categories

Table 21: Chronological Comparison of Metaphysical Motif Secondary Categories Per Time Period

Metaphysical Symbols Secondary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Nature/Astronomy	2	10.53	0	0.00	5	9.09
Numbers	2	10.53	1	11.11	0	0.00
Deities	0	0.00	0	0.00	9	16.36
Masked Figure	0	0.00	0	0.00	1	1.82
Cosmograms	1	5.26	0	0.00	3	5.45

Nature Motif Secondary Categories

Similar analyses to those previously described were conducted on the secondary categories of stamps depicting Nature-themed motifs. The secondary categories within Nature-themed motifs, induced from the sample, are: Flora, Fauna, and Elements & Landscapes. Figure 60 and Table 21 below illustrate the distribution of Nature motif secondary categories within the total dataset. Here the data shows that the most common Nature secondary category was Elements & Landscapes, representing 19.28% of the total sample. In addition, stamps depicting Fauna-themed motifs represent 17.87% of all stamps while Floral motifs represent 4.82% of all stamps.

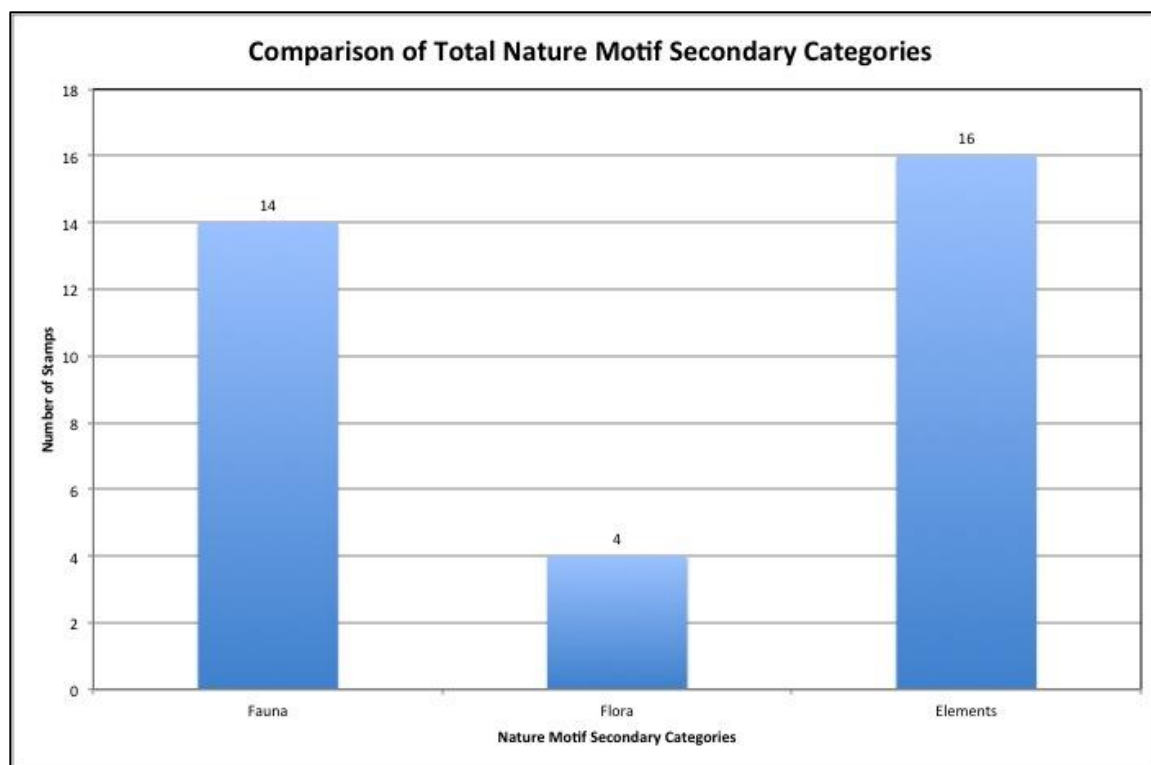


Figure 58: Distribution of Nature Motif Secondary Categories for Total Sample

Table 22: Comparison of Total Nature Motif Secondary Categories

Nature Motif Secondary Categories	Number of Stamps	Relative Frequency (%)
Fauna	14	16.87
Flora	4	4.82
Elements	16	19.28

As with previous analyses, Nature motif secondary categories were also examined for distributional patterns within individual time periods. The results of these analyses are illustrated in Figure 61 and Table 22 below. As this data shows, the most common Nature motif secondary category was Elements & Landscapes motifs dating to the Postclassic Period, as they represent 19.28% of the total sample and 23.64% of all Postclassic Period stamps.

During the Formative Period, the most common Nature-themed secondary category was Faunal designs, making up 15.79% of all Formative Period stamps. During the Classic Period, stamps depicting Faunal and Elements & Landscapes motifs represent 11.11% of stamps each.

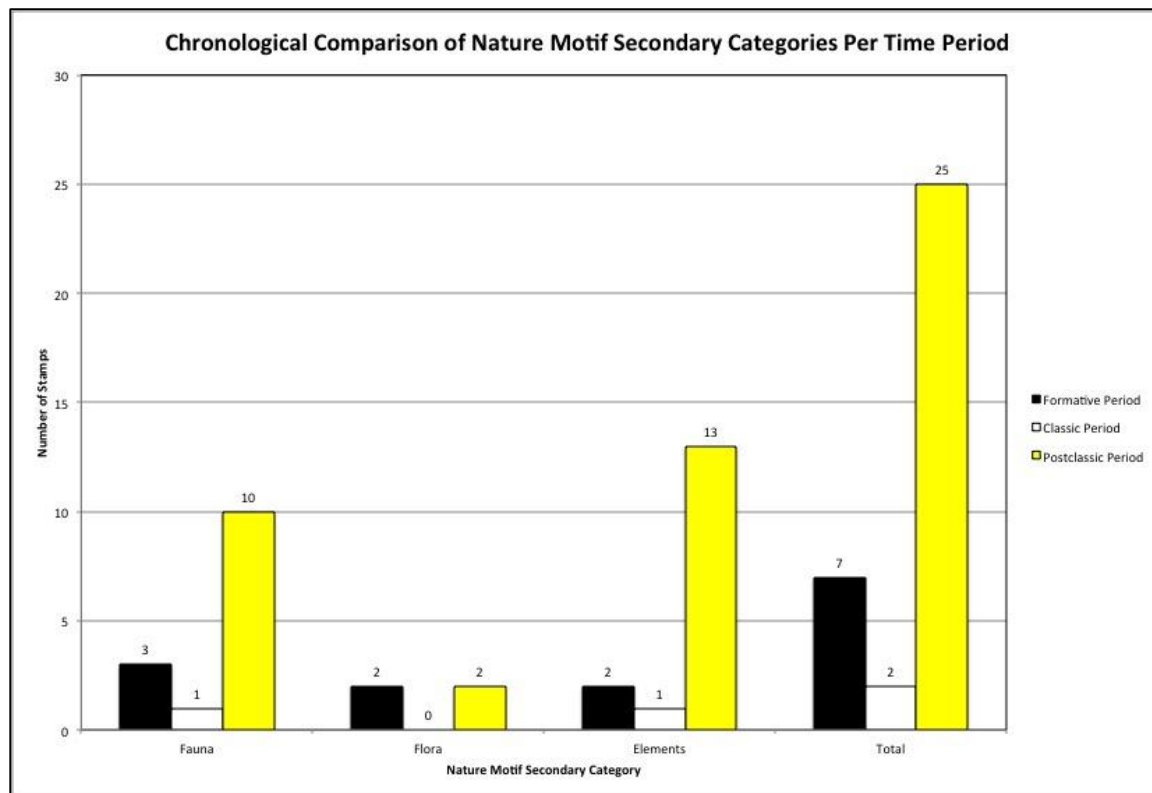


Figure 59: Chronological Comparison of Nature Motif Secondary Categories

Table 23: Chronological Comparison of Nature Motif Secondary Categories Per Time Period

Nature Motif Secondary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Fauna	3	15.79	1	11.11	10	18.18
Flora	2	10.53	0	0.00	2	3.64
Elements	2	10.53	1	11.11	13	23.64

Geometric Motif Secondary Categories

As with the Metaphysical Symbols and Nature primary motifs, stamps depicting Geometric motifs could also be further classified into several different secondary categories. The secondary categories for Geometric motifs induced from the dataset are: Concentric Circles, non-metaphysical Step-Fret designs, Circles, Triangles, Spirals, and Zig-Zags. These secondary categories were examined both overall and within individual time periods. Figure 62 and Table 23 below display the distributional patterns of Geometric secondary categories within the total sample.

Overall the data shows that the most common Geometric secondary category found within the sample set was Concentric Circles, which represent 2.41% of the total dataset. In addition, stamps that have motifs centered on Step-Fret, Circle, Triangle, Spiral, and Zig-Zag designs make up 1.2% of the total sample each.

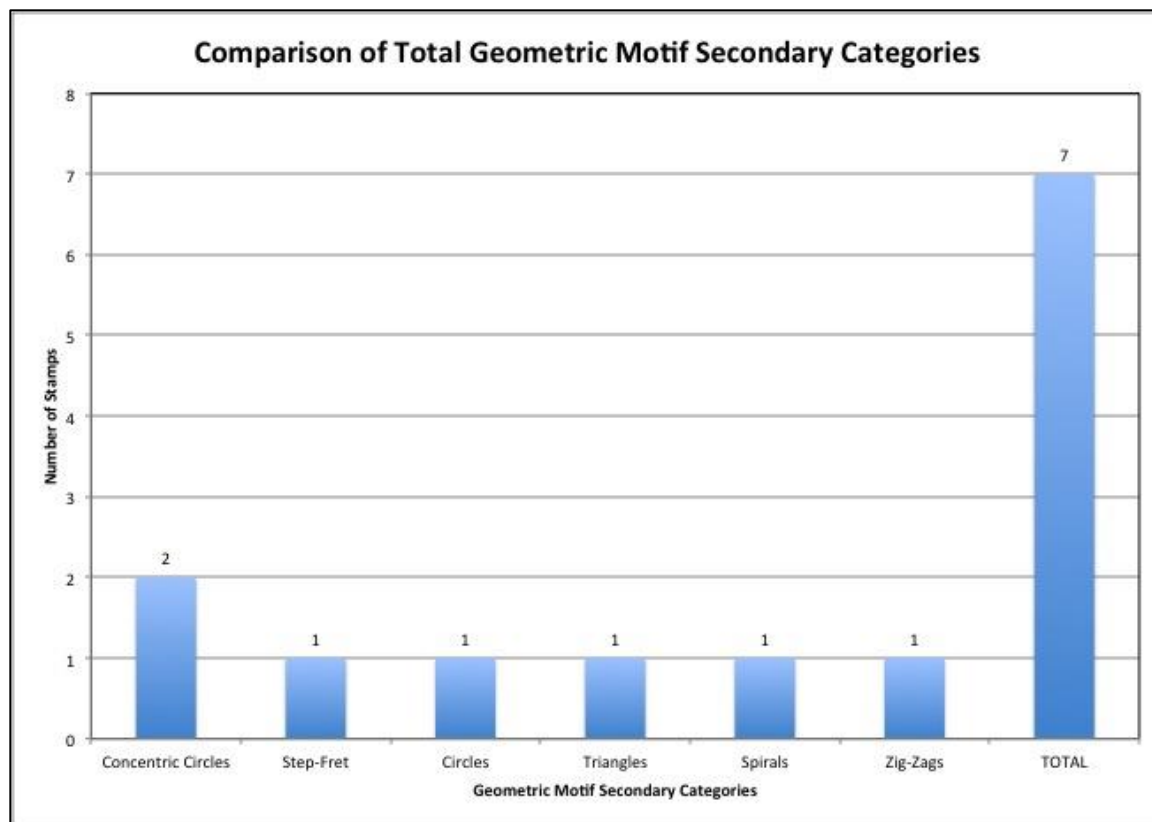


Figure 60: Distribution of Geometric Motif Secondary Categories for Total Sample

Table 24: Comparison of Total Geometric Motif Secondary Categories

Geometric Motif Secondary Categories	Number of Stamps	Relative Frequency (%)
Concentric Circles	2	2.41
Step-Fret	1	1.20
Circles	1	1.20
Triangles	1	1.20
Spirals	1	1.20
Zig-Zags	1	1.20

Figure 63 and Table 24 below illustrate the distributional characteristics of Geometric motif secondary categories within the three primary time periods. Shown here is that the most common secondary category was Concentric Circle motifs dating to the Postclassic Period, as they represent 2.41% of the total sample and 3.65% of all Postclassic Period stamps.

During the Formative Period, the only Geometric secondary categories present in this sample were Step-Fret and Circle designs. These motifs represent 5.26% of all Formative Period stamps each. During the Classic Period, the only Geometric secondary category present was Triangle-themed designs, which comprise 11.11% of all Classic Period stamps.

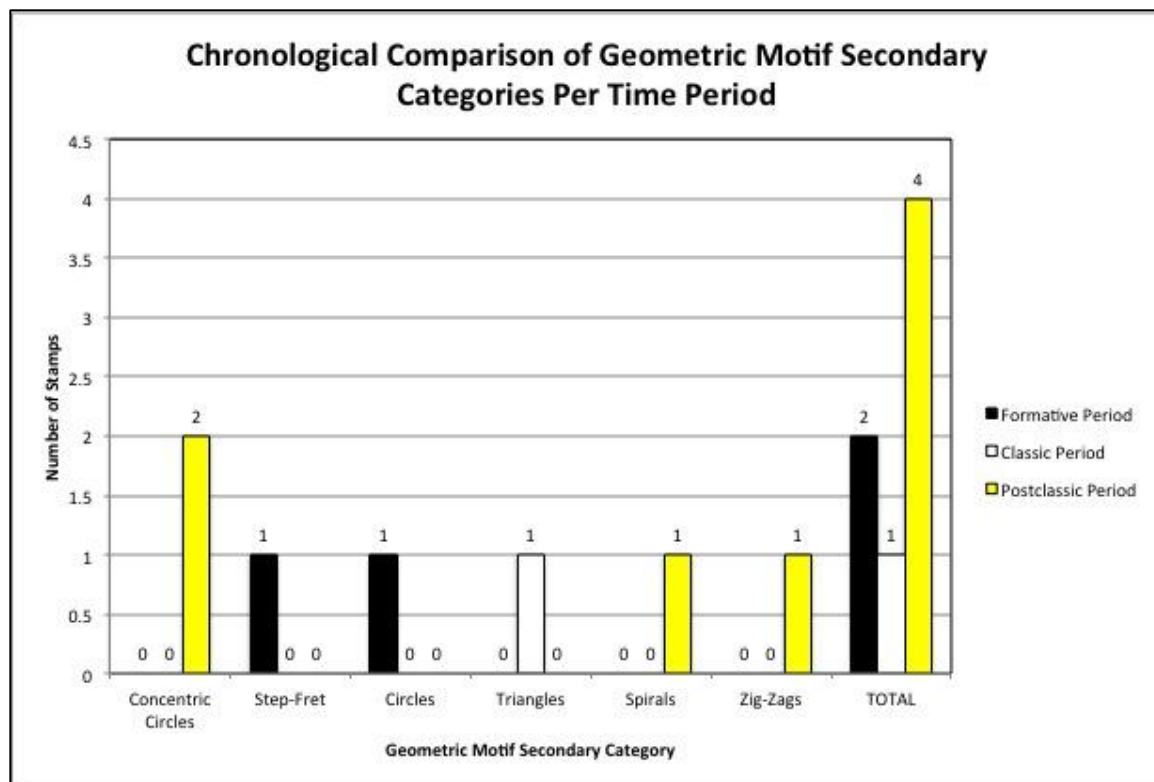


Figure 61: Chronological Comparison of Geometric Motif Secondary Categories

Table 25: Chronological Comparison of Geometric Motif Secondary Categories Per Time Period

Geometric Motif Secondary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassi c Stamps	Relative Frequency within Postclassic (%)
Concentric Circles	0	0.00	0	0.00	2	3.64
Step-Fret	1	5.26	0	0.00	0	0.00
Circles	1	5.26	0	0.00	0	0.00
Triangles	0	0.00	1	11.11	0	0.00
Spirals	0	0.00	0	0.00	1	1.82
Zig-Zags	0	0.00	0	0.00	1	1.82

Objects Motif Secondary Categories

The final secondary motif category analysis undertaken was that of Objects motif secondary categories. These secondary categories, as induced from the dataset, include: Household Objects and Architecture. The results of the examinations conducted on Object motif secondary categories within the total dataset are illustrated in Figure 64 and Table 25 below. Here the data show that the most common overall Object secondary category was Household Objects, which represent 2.41% of the total sample. In addition, stamps depicting Architecture motifs represent 1.2% of the dataset.

Table 26: Comparison of Total Object Motif Secondary Categories

Object Motif Secondary Categories	Number of Stamps	Relative Frequency (%)
Household	2	2.41
Architecture	1	1.20

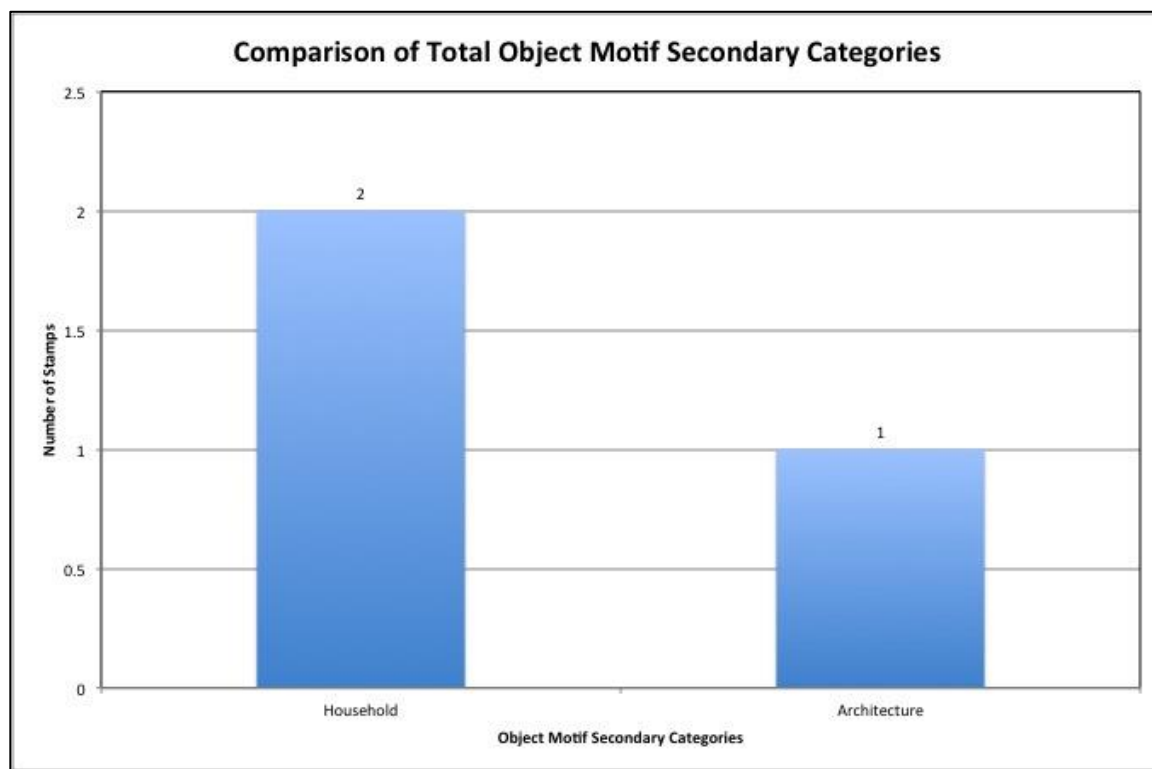


Figure 62: Distribution of Object Motif Secondary Categories for Total Sample

As with all previous iconographic analyses, Object motif secondary category distributional patterns were also examined within individual time periods. Figure 65 and Table 26 below display the results of these investigations. Here the data shows that no stamp depicting

an Object secondary category motif was more common than the others. During the Formative Period, stamps with Household Object themed motifs represent 5.26% of all stamps within the time period. No stamps portraying Architectural designs dating to the Formative Period were present in this sample.

Stamps depicting Architecture themed designs represent 11.11% of all Classic Period stamps. No stamps portraying Household Object designs dating to the Classic Period were present in this sample. Finally, stamps portraying Household Object designs represent 1.82% of all Postclassic Period stamps. No stamps depicting Architecture designs dating to the Postclassic Period were included in this sample.

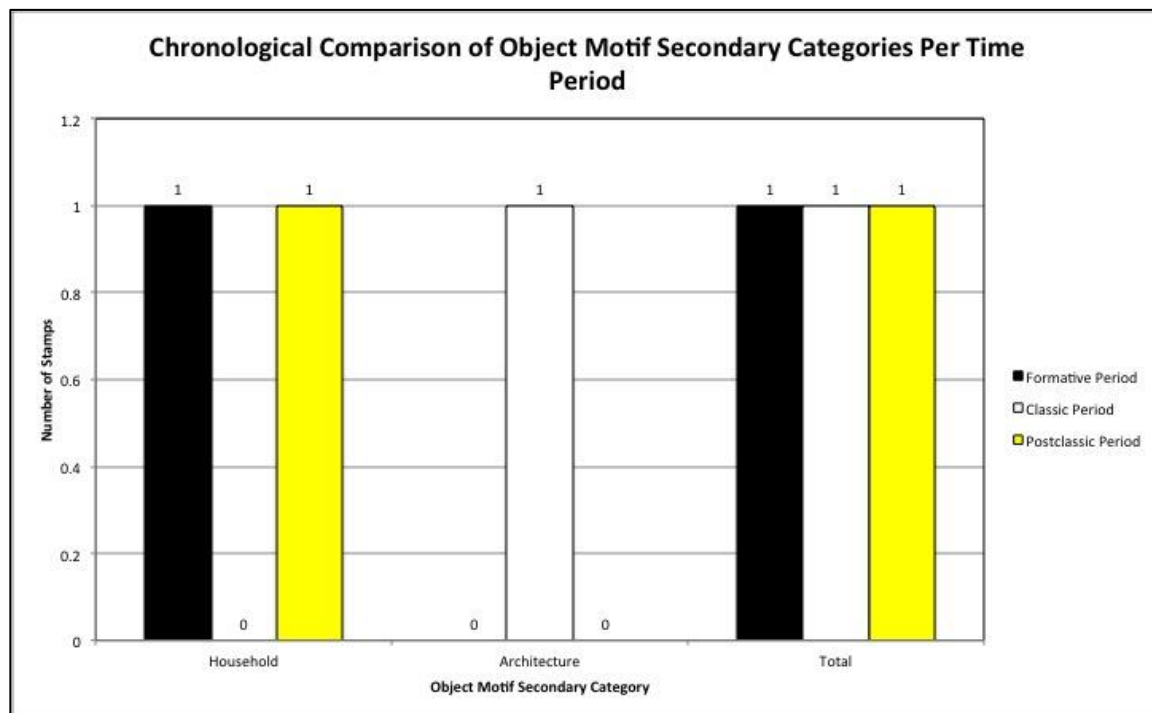


Figure 63: Chronological Comparison of Object Motif Secondary Categories

Table 27: Chronological Comparison of Object Motif Secondary Categories Per Time Period

Object Motif Secondary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassi c Stamps	Relative Frequency within Postclassic (%)
Household	1	5.26	0	0.00	1	1.82
Architecture	0	0.00	1	11.11	0	0.00

Chronological Distribution Analysis of Motif Tertiary Categories

The final set of iconographic analyses performed for this study involved further detailed classification of motif types within the created typology. In addition to primary motif categories and secondary categories, it was possible to induce tertiary categories for several stamp designs. Secondary categories that also include tertiary subcategories are: Nature/Astronomy, Deities, Cosmograms, Fauna, Flora, and Elements & Landscapes.

As with previous analyses, tertiary motif categories were examined for distributional patterns and characteristics both within the total sample and within the three main time periods. For a detailed explanation of all tertiary category motif identification, creation, and classification, please see Chapter 2: Materials and Methodology.

Nature/Astronomy Motif Tertiary Category Analysis

The first types of tertiary categories analyzed were those belonging to the Metaphysical Symbols main motif category. Within Metaphysical Symbols the secondary categories of

Nature/Astronomy, Deities, and Cosmograms all possess tertiary categories. The tertiary categories induced to belong to Nature/Astronomy are as follows: Flower with Breath Scroll, Reeds, Sun, Stars, Water/Rain, and Venus.

Figure 66 and Table 27 below illustrate the results of examinations conducted on these tertiary categories within the total sample. The data shows that stamps depicting Suns, Stars, and Venus are equally common overall, as each represents 2.41% of the total dataset. Stamps depicting Flower with Breath Scroll, Reed, and Water/Rain motifs are also equally common, each representing 1.2% of the total sample.

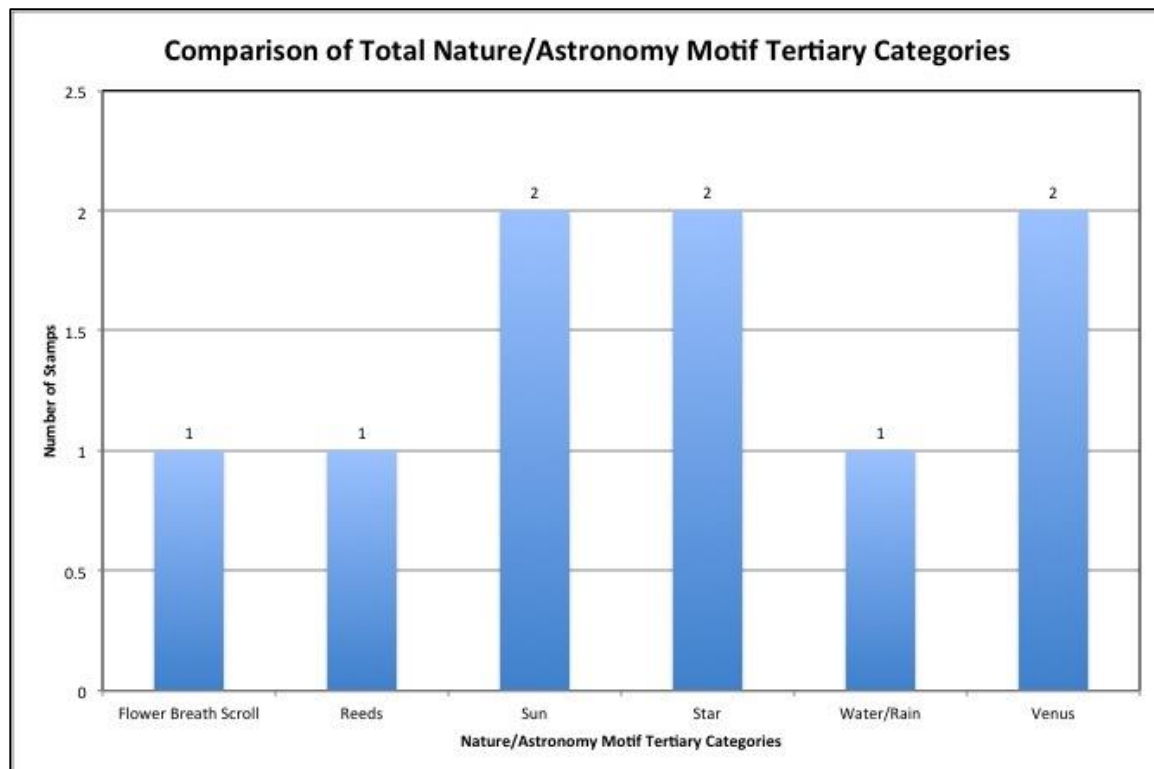


Figure 64: Distribution of Nature/Astronomy Motif Tertiary Categories for Total Sample

Table 28: Comparison of Total Nature/Astronomy Motif Tertiary Categories

Nature/Astronomy Tertiary Categories	Number of Stamps	Relative Frequency (%)
Flower Breath Scroll	1	1.20
Reeds	1	1.20
Sun	2	2.41
Star	2	2.41
Water/Rain	1	1.20
Venus	2	2.41

Figure 67 and Table 28 below display the chronological distribution of Nature/Astronomy tertiary categories within each individual time period. It can be seen here that the most common stamp from this class was Venus motifs dating to the Postclassic Period, as they represent 2.41% of the total sample and 3.64% of stamps within the Postclassic Period.

During the Formative Period, stamps depicting Flower with Breath Scroll, Sun, and Star designs were present in the sample, each comprising 5.26% of total stamps. No stamps containing Nature/Astronomy tertiary category motifs dating to the Classic Period were present in this sample.

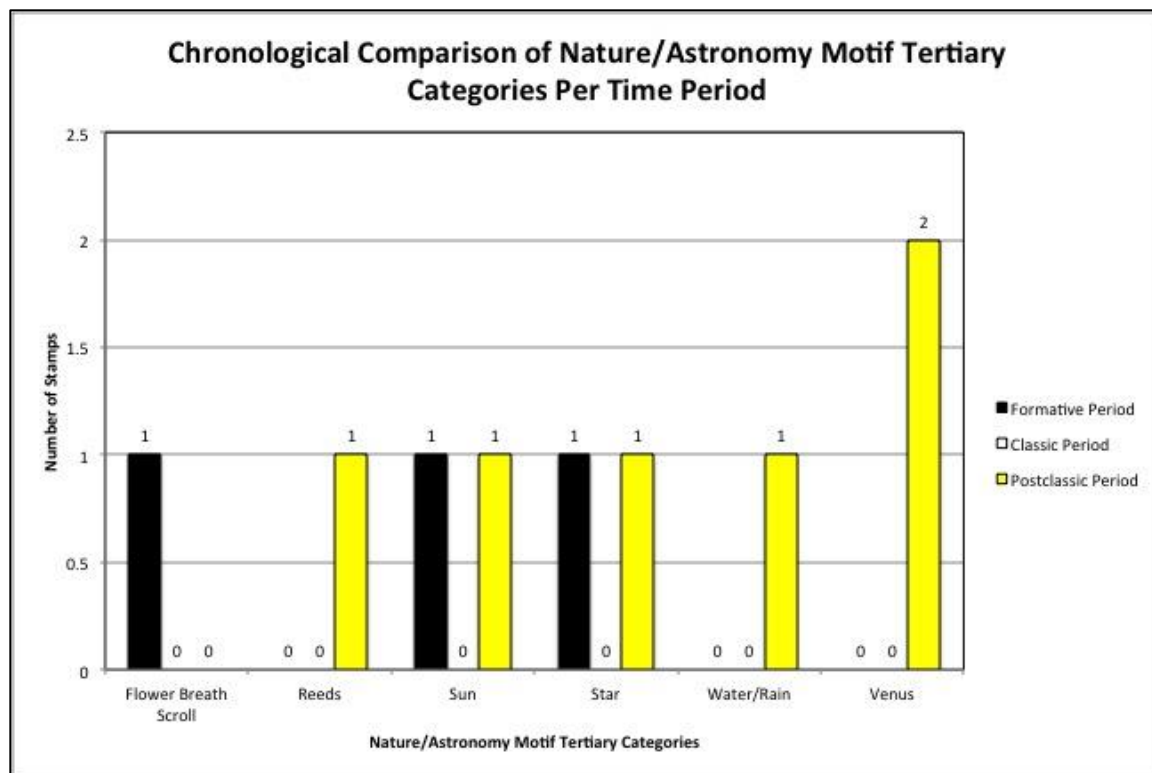


Figure 65: Chronological Comparison of Nature/Astronomy Motif Tertiary Categories

Table 29: Comparison of Nature/Astronomy Motif Tertiary Categories Per Time Period

Nature/Astronomy Tertiary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Flower Breath	1	5.26	0	0.00	0	0.00
Scroll						
Reeds	0	0.00	0	0.00	1	1.82
Sun	1	5.26	0	0.00	1	1.82
Star	1	5.26	0	0.00	1	1.82
Water/Rain	0	0.00	0	0.00	1	1.82
Venus	0	0.00	0	0.00	2	3.64

Deity Motif Tertiary Categories Analysis

The next Metaphysical Symbols tertiary categories studied were those belonging to the secondary category Deities. The tertiary categories induced to belong to Deities are as follows: Quetzalcoatl and Ehecatl. Table 29 and Figure 68 below illustrate the results of distributional examinations conducted on these tertiary categories within the total sample.

These figures show that the most common Deity motif was stamps depicting the Mesoamerican god Quetzalcoatl, as these stamps have a relative frequency of 6.02% within the dataset. Stamps depicting the Mesoamerican god Ehecatl have a relative frequency of 4.82% within the total sample. These figures show that stamps identifiably depicting deities do not occur within this sample until the Postclassic Period. Stamps depicting the god Quetzalcoatl were

slightly more common, representing 6.02% of the total sample and 9.09% of all Postclassic Period stamps. In contrast, stamps depicting the god Ehecatl represent 7.27% of all Postclassic Period stamps. No stamps depicting identifiable deities dating to either the Formative Period or Classic Period were present in this dataset.

Table 30: Comparison of Total Deity Motif Tertiary Categories

Deity Motif Tertiary Categories	Number of Stamps	Relative Frequency (%)	Relative Frequency within Postclassic (%)
Quetzalcoatl	5	6.02	9.09
Ehecatl	4	4.82	7.27

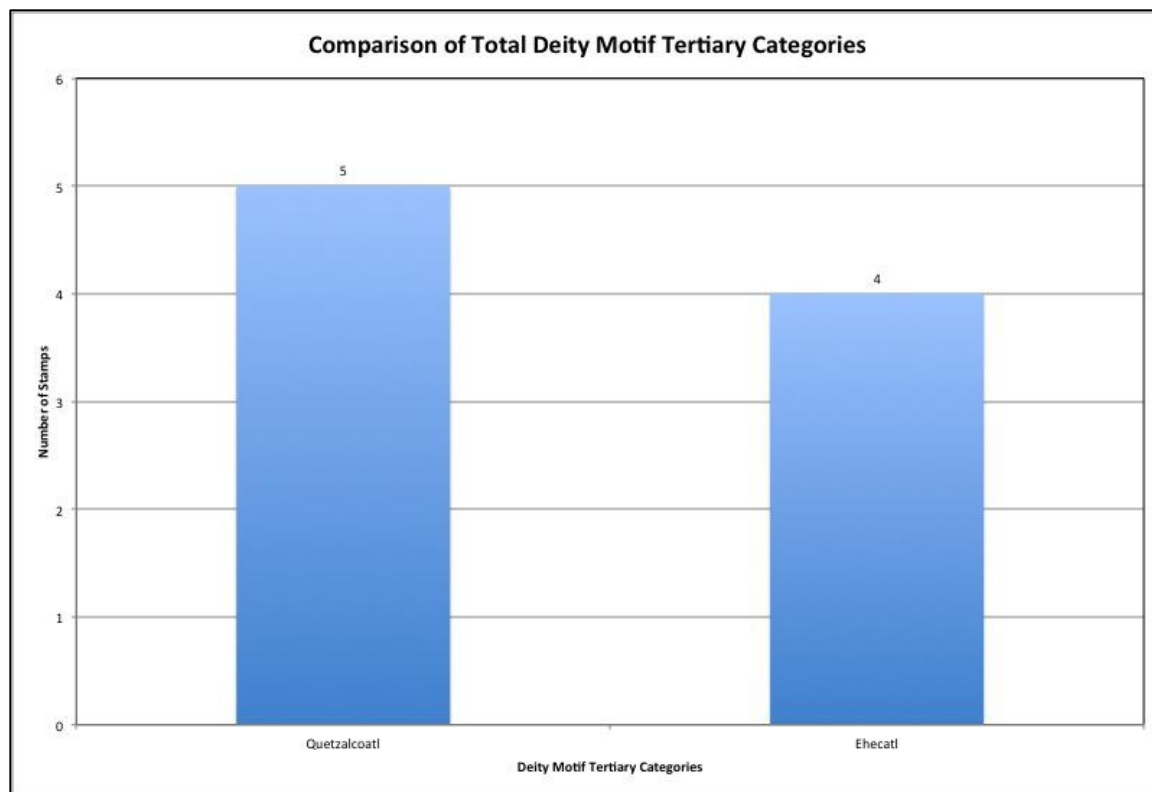


Figure 66: Distribution of Deity Motif Tertiary Categories for Total Sample

Cosmogram Motif Tertiary Categories Analysis

The final Metaphysical Symbols tertiary categories studied were those belonging to the secondary category Cosmograms. The tertiary categories induced to belong to Cosmograms are as follows: Cruciform and Step-Fret. For a complete break down of the difference between the Geometric Step-Frets and Cosmogram Step-Frets categories please see Chapter 4: Discussion.

Figure 70 and Table 31 below illustrate the results of distributional examinations conducted on these tertiary categories within the total sample. Here it can be seen that the most

common type of Cosmogram design depicted on stamps within this sample are Step-Fret Cosmograms, as they represent 3.61% of the total dataset. In contrast, Cruciform Cosmogram motifs make up 1.2% of all stamps included in this study.

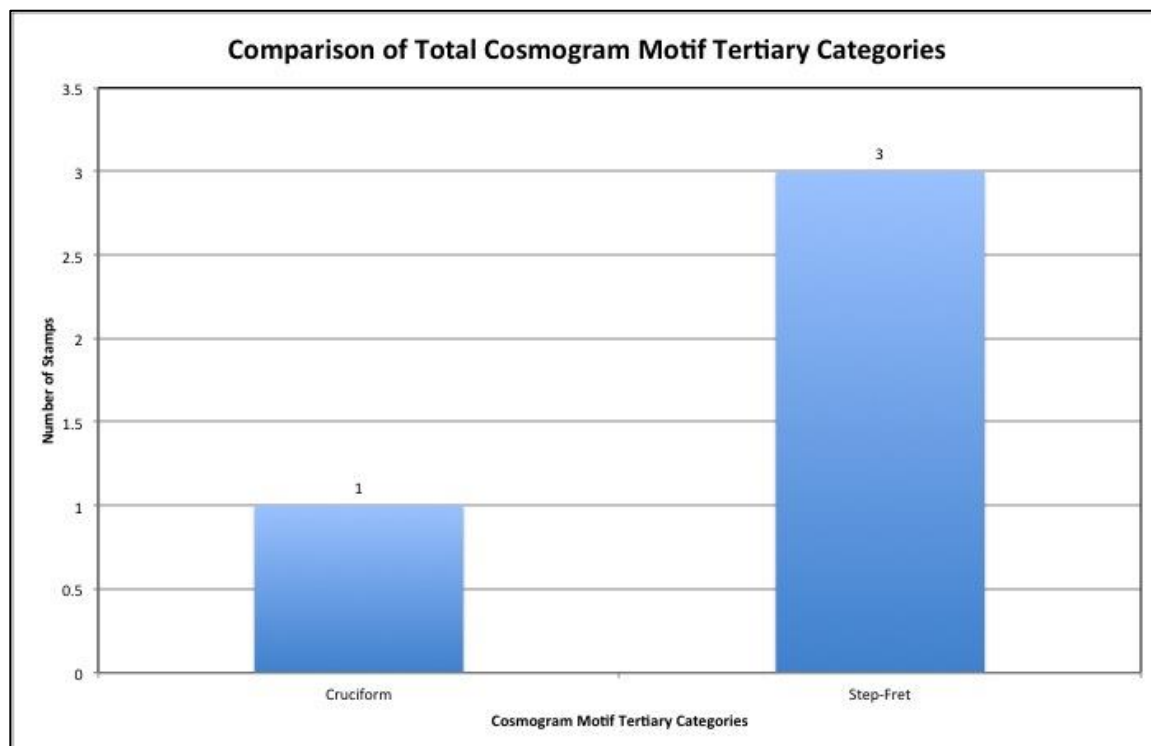


Figure 67: Distribution of Cosmogram Motif Tertiary Categories for Total Sample

Table 31: Comparison of Total Cosmogram Motif Tertiary Categories

Cosmogram Motif Tertiary Categories	Number of Stamps	Relative Frequency (%)
Cruciform	1	1.20
Step-Fret	3	3.61

Figure 71 and Table 31 below illustrate the results of chronological distribution analysis on Cosmogram tertiary categories within each individual time period. They show that the most common Cosmogram type was Step-Fret Cosmograms, as they represent 5.54% of all Postclassic stamps. No stamps depicting Cruciform Cosmogram designs dating to the Postclassic Period were present in this sample. During the Formative Period, stamps containing Cruciform Cosmogram motifs make up 5.26% of all Formative Stamps. No stamps depicting Step-Fret Cosmogram motifs dating to the Formative Period were present in this sample.

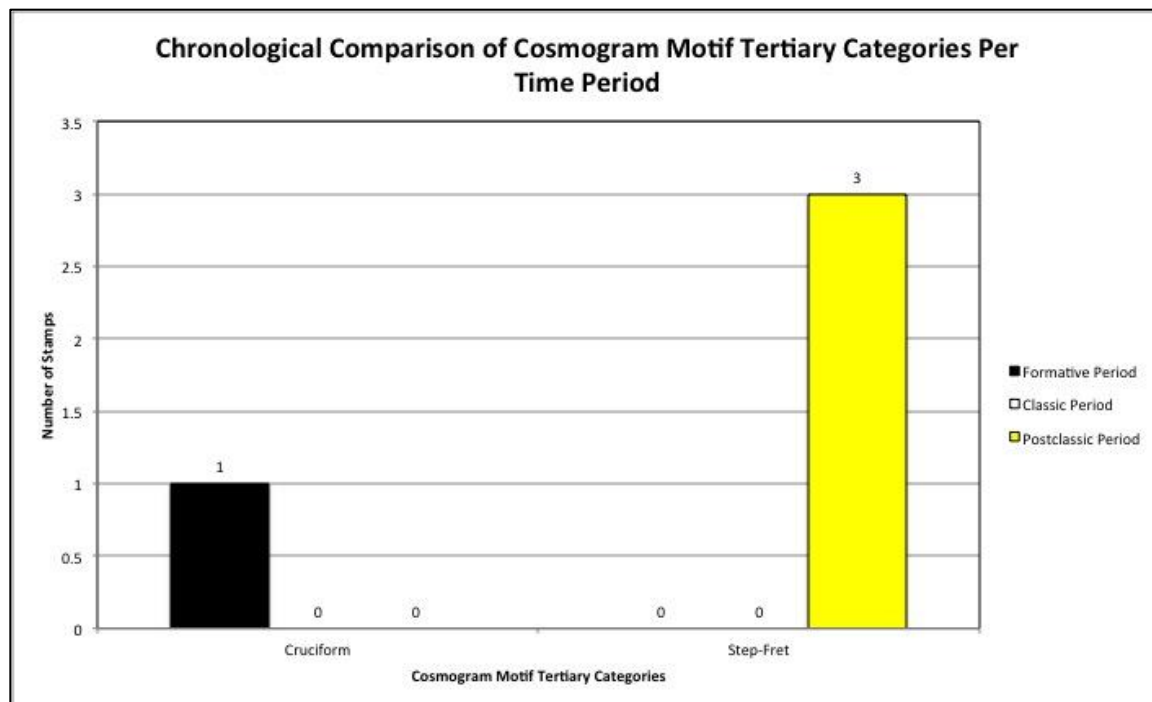


Figure 68: Chronological Comparison of Cosmogram Motif Tertiary Categories

Table 32: Comparison of Cosmogram Motif Tertiary Categories Per Time Period

Cosmogram Motif Tertiary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Cruciform	1	5.26	0	0.00	0	0.00
Step-Fret	0	0.00	0	0.00	3	5.45

Fauna Motif Tertiary Categories Analysis

The second type of tertiary categories analyzed were those belonging to the Nature primary motif category. Within the primary category Nature, the secondary categories of Fauna, Flora, and Elements & Landscapes all possess tertiary categories. The tertiary categories induced to belong to Fauna are as follows: Mammals, Insectoids, Birds, and Reptiles. Belonging to the tertiary category of Mammals are images of monkeys and images of animals whose specific mammalian category could not be identified. Included in the Insectoid tertiary category are butterflies, ants, and a scorpion. Included in the Bird tertiary category are eagles, buzzards, and images of birds that could not be more specifically identified. Included in the Reptile tertiary category are images of lizards.

Table 33 and Figure 72 below illustrate the results of examinations conducted on these tertiary categories within the total sample. Here the data shows that the most common Faunal tertiary category was Insectoids, which represent 6.02% of the total sample. The least common was Reptiles motif at 2.41% of the sample.

Table 33: Comparison of Total Fauna Motif Tertiary Categories

Fauna Motif Tertiary Categories	Number of Stamps	Relative Frequency (%)
Mammals	4	4.82
Insectoids	5	6.02
Birds	3	3.61
Reptiles	2	2.41

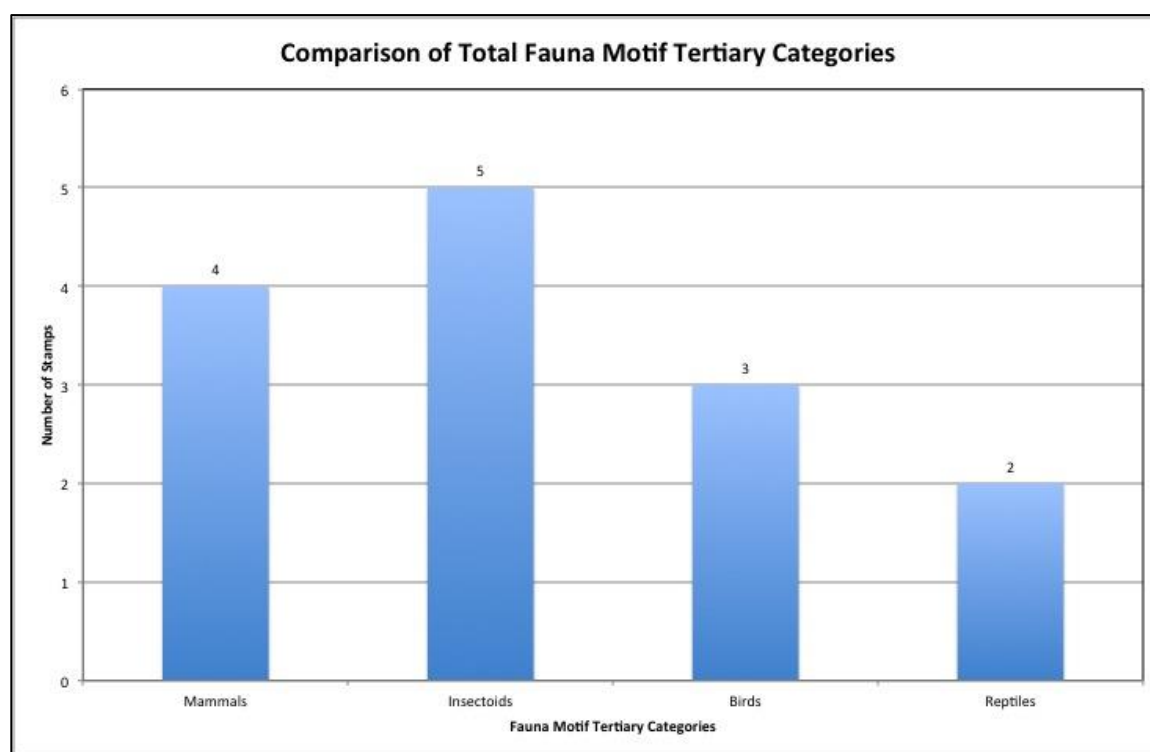


Figure 69: Distribution of Fauna Motif Tertiary Categories for Total Sample

Figure 73 and Table 34 below illustrate the results of chronological distribution analysis of Fauna tertiary categories within individual time periods. Here we see the most common type of Faunal motif was Insectoid motifs dating to the Postclassic Period, as they represent 7.27% of all Postclassic Period stamps. During the Formative Period, stamps depicting Mammal, Insectoid, and Bird designs were equally common. They represent 5.26% of all Formative Period stamps each. During the Classic Period, stamps depicting Bird images occur with a relative frequency of 11.11%.

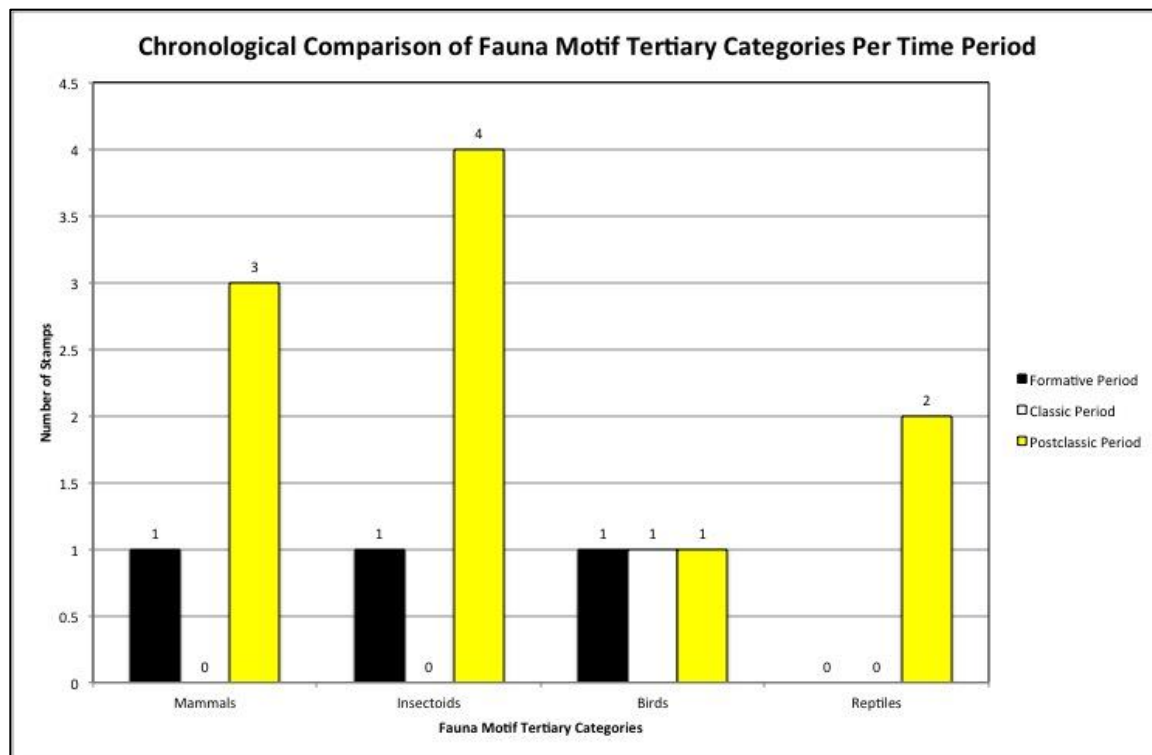


Figure 70: Chronological Comparison of Fauna Motif Tertiary Categories

Table 34: Comparison of Fauna Motif Tertiary Categories Per Time Period

Fauna Motif Tertiary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Mammals	1	5.26	0	0.00	3	5.45
Insectoids	1	5.26	0	0.00	4	7.27
Birds	1	5.26	1	11.11	1	1.82
Reptiles	0	0.00	0	0.00	2	3.64

Flora Motif Tertiary Categories Analysis

The next Nature tertiary categories studied were those belonging to the secondary category Flora. The tertiary categories induced to belong to Flora are as follows: Flowers and Leaves. Figure 74 and Table 35 below illustrate the results of distributional examinations conducted on these secondary subcategories within the total sample. The data here shows that Flower and Leaf motifs were equally common, as they each represent 2.41% of the total sample.

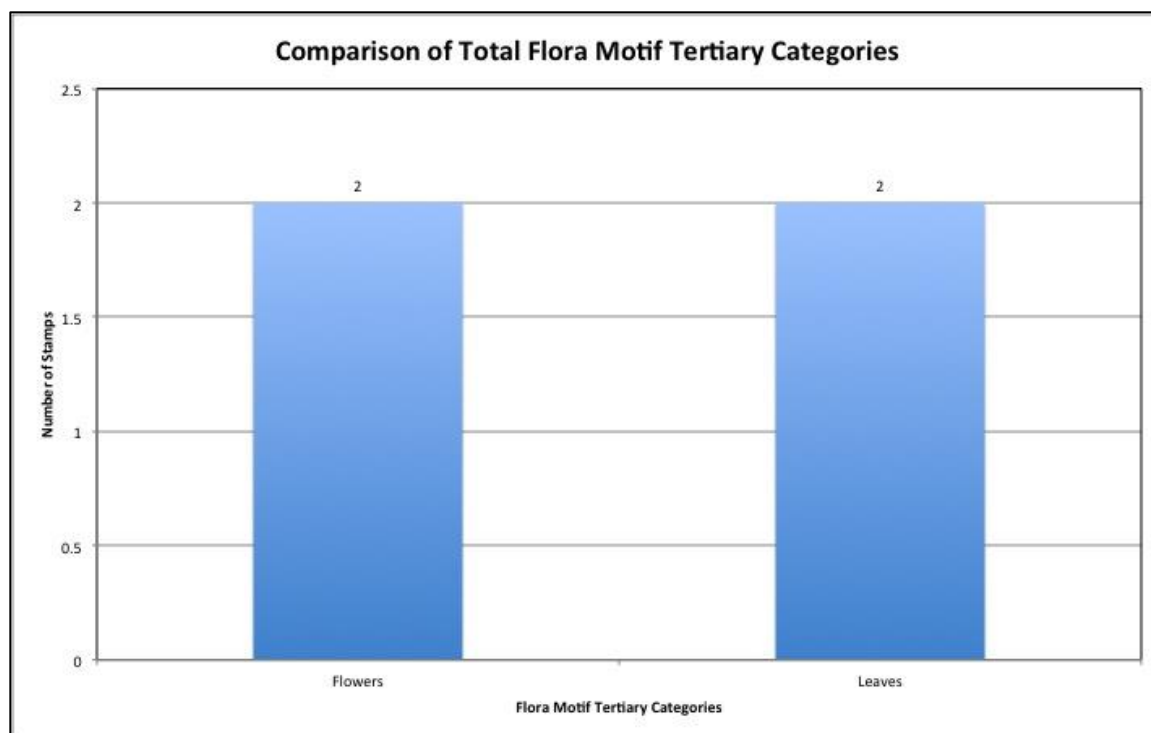


Figure 71: Distribution of Flora Motif Tertiary Categories for Total Sample

Table 35: Comparison of Total Flora Motif Tertiary Categories

Flora Motif Tertiary Categories	Number of Stamps	Relative Frequency (%)
Flowers	2	2.41
Leaves	2	2.41

Figure 75 and Table 36 below illustrate the results of chronological distribution analysis of Floral tertiary categories within each individual time period. Here we see that during the

Formative Period, stamps depicting Leaf images occurred with a relative frequency of 10.53%. During the Postclassic Period, stamps containing Flower images had a relative frequency of 3.64%. No stamps containing predominantly Flower or Leaf images dating to the Classic Period were present in the dataset.

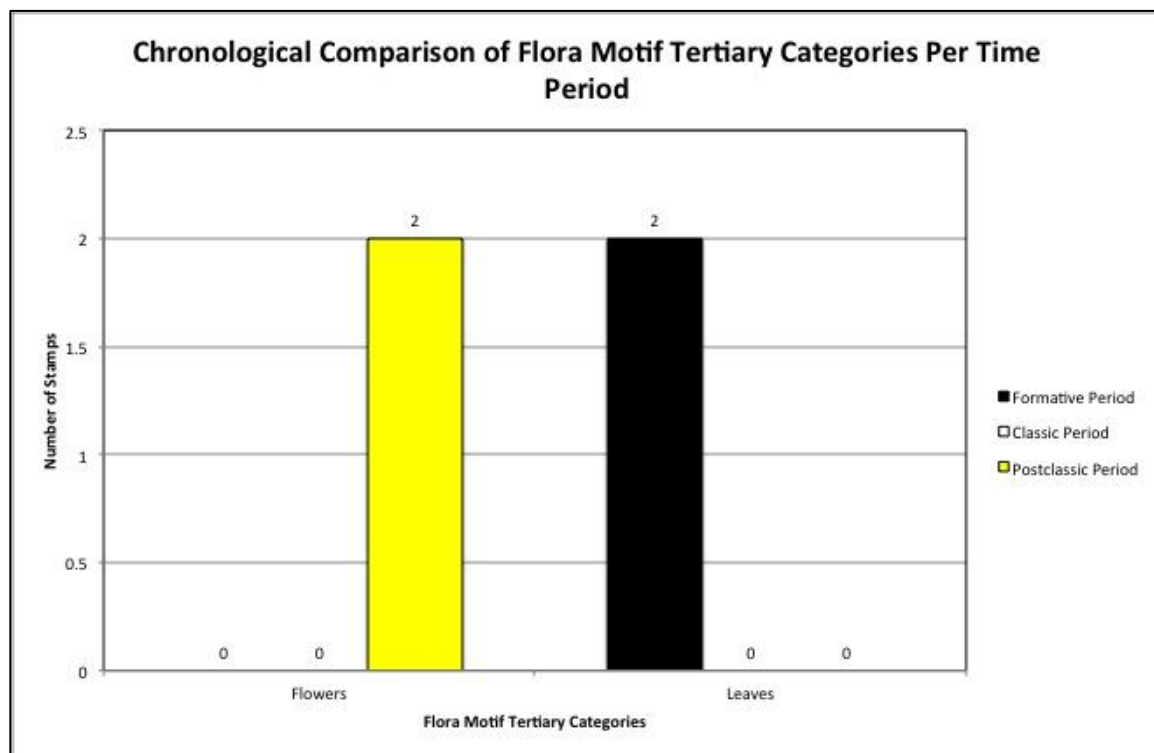


Figure 72: Chronological Comparison of Flora Motif Tertiary Categories

Table 36: Comparison of Flora Motif Tertiary Categories Per Time Period

Flora Motif Tertiary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Flowers	0	0.00	0	0.00	2	3.64
Leaves	2	10.53	0	0.00	0	0.00

Elements & Landscapes Motif Tertiary Categories Analysis

The final Nature tertiary categories studied were those belonging to the secondary category Elements & Landscapes. The tertiary categories induced to belong to Elements & Landscapes are as follows: Lightning, Sun, and Hill. For a complete breakdown of the difference between the Elements & Landscapes Sun and Metaphysical Symbols Sun categories please see Chapter 2: Materials and Methodology.

Figure 76 and Table 37 below illustrate the results of distributional examinations conducted on these tertiary categories within the total sample. The data shows that stamps depicting Lightning and non-religious Sun themed images are equally common. Each tertiary category represents 7.23% of the total sample. In addition, stamps portraying images of Hills represent 3.61% of all stamps included in this study.

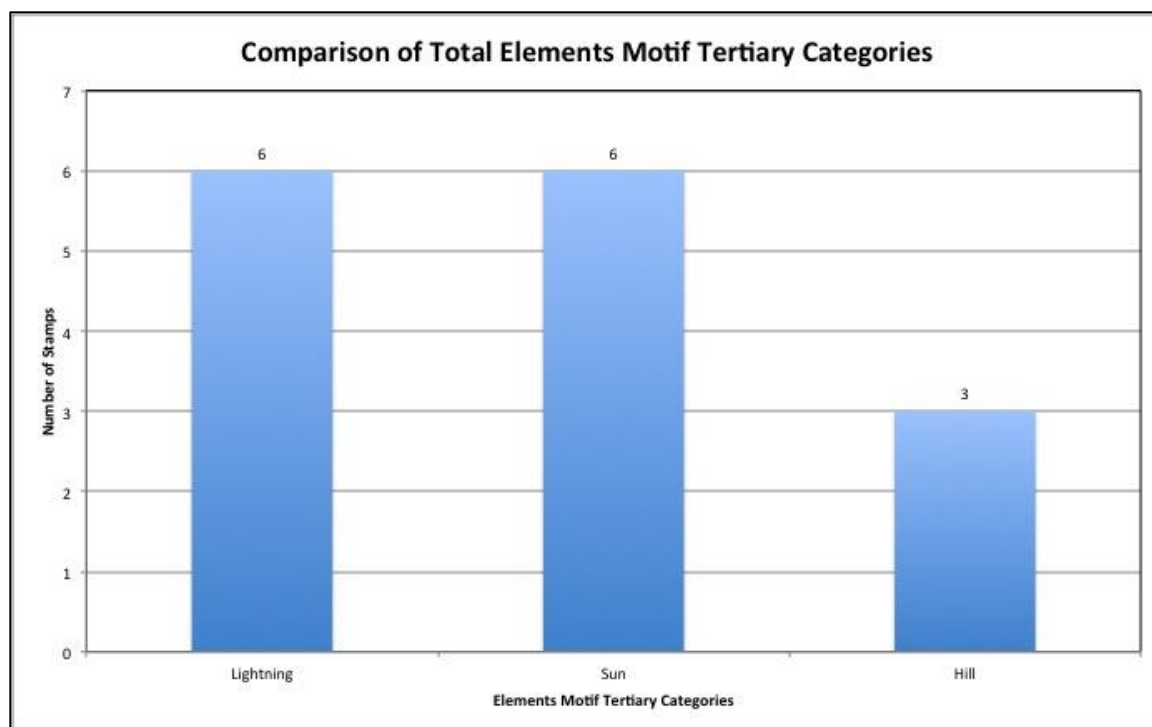


Figure 73: Distribution of Elements Motif Tertiary Categories for Total Sample

Table 37: Comparison of Total Elements Motif Tertiary Categories

Elements Motifs Tertiary Categories	Number of Stamps	Relative Frequency (%)
Lightning	6	7.23
Sun	6	7.23
Hill	3	3.61

Figure 77 and Table 38 below illustrate the results of chronological distribution analysis of Elements & Landscapes tertiary categories within each individual time period. The data shows that the most common of these tertiary categories was Lightning motifs dating to the Postclassic Period, as they represent 10.91% of all Postclassic Period stamps.

No stamps consisting mainly of Lightning, Nature-Sun, or Hill designs dating to the Formative Period were present in this study. During the Classic Period, stamps depicting non-religious Sun motifs constitute 11.11% of stamps. In addition to Lightning-themed motifs, Postclassic Period stamps were comprised of stamps portraying non-religious Sun motifs at a rate of 9.09%. Lastly, stamps containing Hill based motifs represent 5.45% of all Postclassic Period stamps.

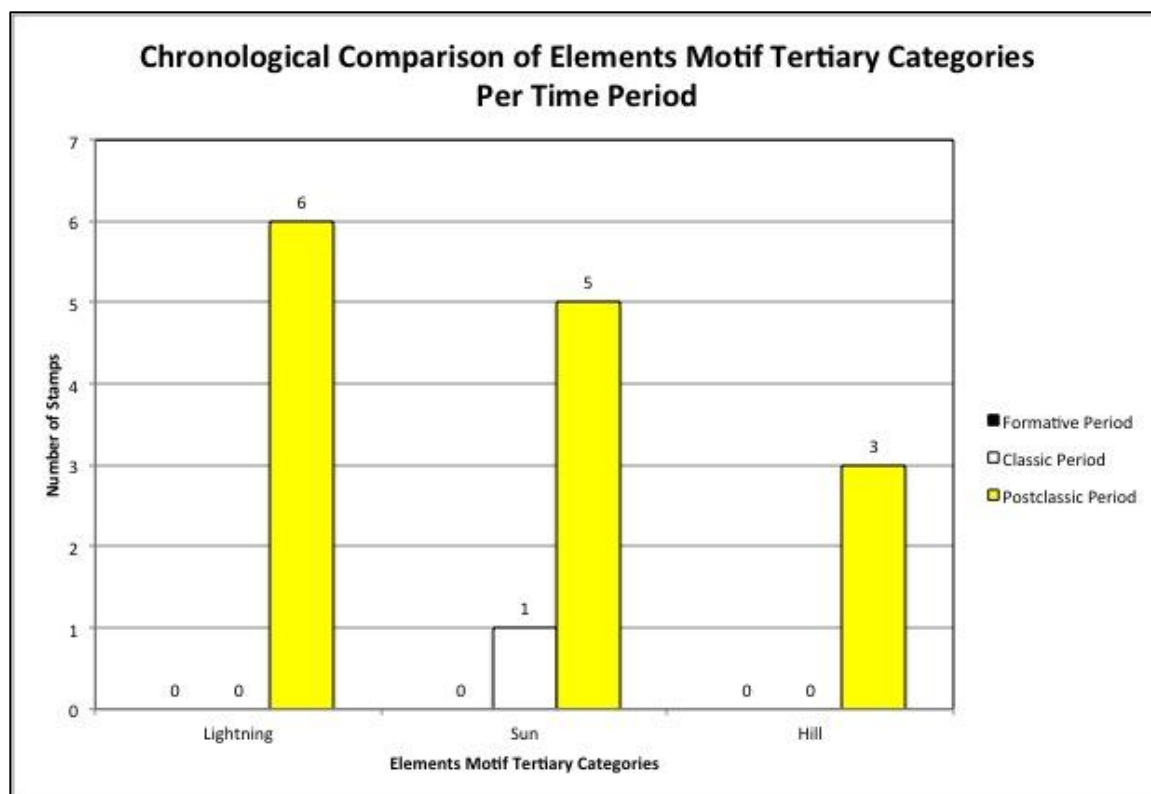


Figure 74: Chronological Comparison of Elements Motif Tertiary Categories

Table 38: Comparison of Elements Motif Tertiary Categories Per Time Period

Elements Motifs Tertiary Categories	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Lightning	0	0.00	0	0.00	6	10.91
Sun	0	0.00	1	11.11	5	9.09
Hill	0	0.00	0	0.00	3	5.45

Results of Level of Elaboration and Rank of Craftsmanship Analysis

The final stage of this study consisted of investigating the Level of Elaboration and Rank of Craftsmanship of the stamps included in the dataset. As with other elements of stamp iconography, the creation of Elaboration Levels and Craftsmanship Ranks were induced from the total sample. For the purposes of this study, the term 'elaboration' refers to the number of incisions used to create the complete design on a stamp, the number of motif elements used in a complete design, and the number of complete designs on the stamp. The number of incisions ranges from 0-40+ within the total dataset; it should be noted that circles were counted as two incisions given their increased level of difficulty compared to straight lines. The number of motif elements used in a design ranges from one to four, and the number of complete designs on a single stamp ranges from one to two+.

The Level of motif Elaboration was studied first and includes Levels 0-5 with Level 0 comprised of the least Elaborate motifs and Level 5 comprised of the most Elaborate motifs. For a detailed explanation on the conditions required for a motif to be classified into any of these Levels, please see Chapter 2: Materials and Methodology. Figure 78 and Table 39 below illustrate the results of distributional analysis of Levels of stamp motif elaboration within the total sample. The data shows that stamps with Level 1 motifs were the most common, as they represent 27.71% of all stamps included in this study.

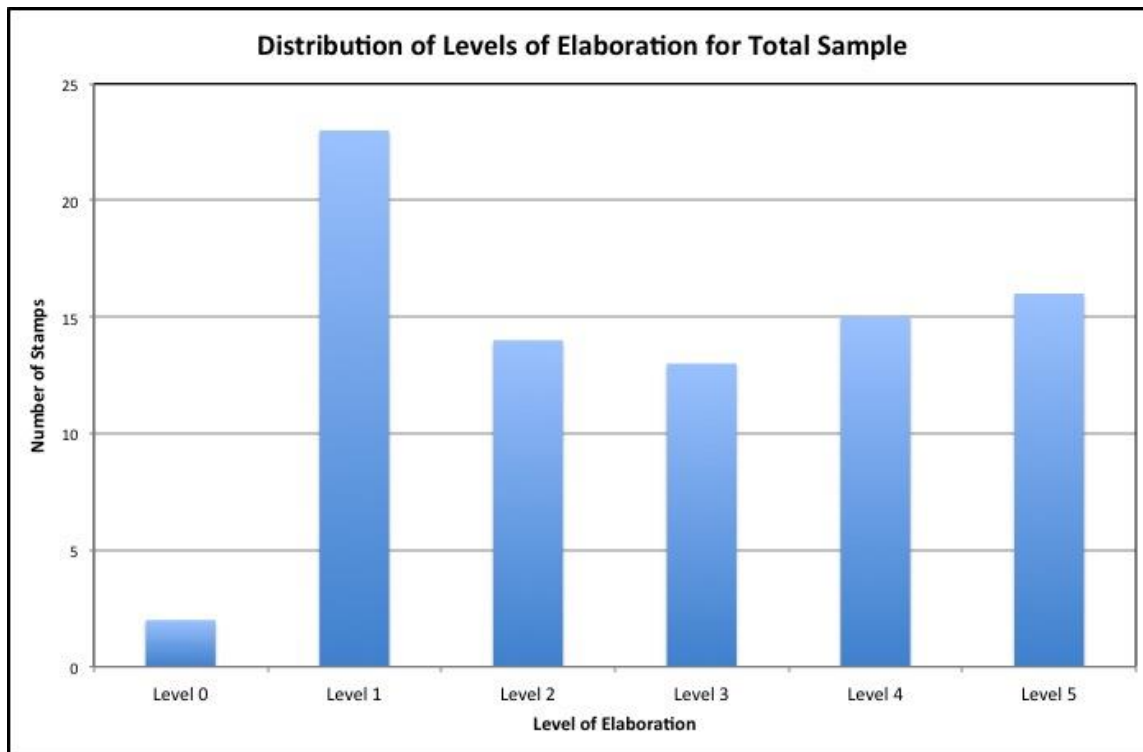


Figure 75: Distribution of Stamp Levels of Elaboration for Total Sample

Table 39: Comparison of Elaboration Level for Total Sample

Level of Elaboration	Number of Stamps	Relative Frequency (%)
Level 0	2	2.41
Level 1	23	27.71
Level 2	14	16.87
Level 3	13	15.66
Level 4	15	18.07
Level 5	16	19.28

Figure 79 and Table 40 below illustrate the chronological distribution of motif Levels of Elaboration within each individual time period. Here the data shows that the most common Level of Elaboration are stamps with Level 5 motifs dating to the Postclassic Period, as they represent 19.28% of the total sample, and 29.09% of all Postclassic Period stamps.

During the Formative Period Level 1 motifs were most common, making up 52.63% of all Formative Period Stamps. During the Classic Period, Level 1 motifs were again most common, representing 88.89% of all Classic Period stamps.

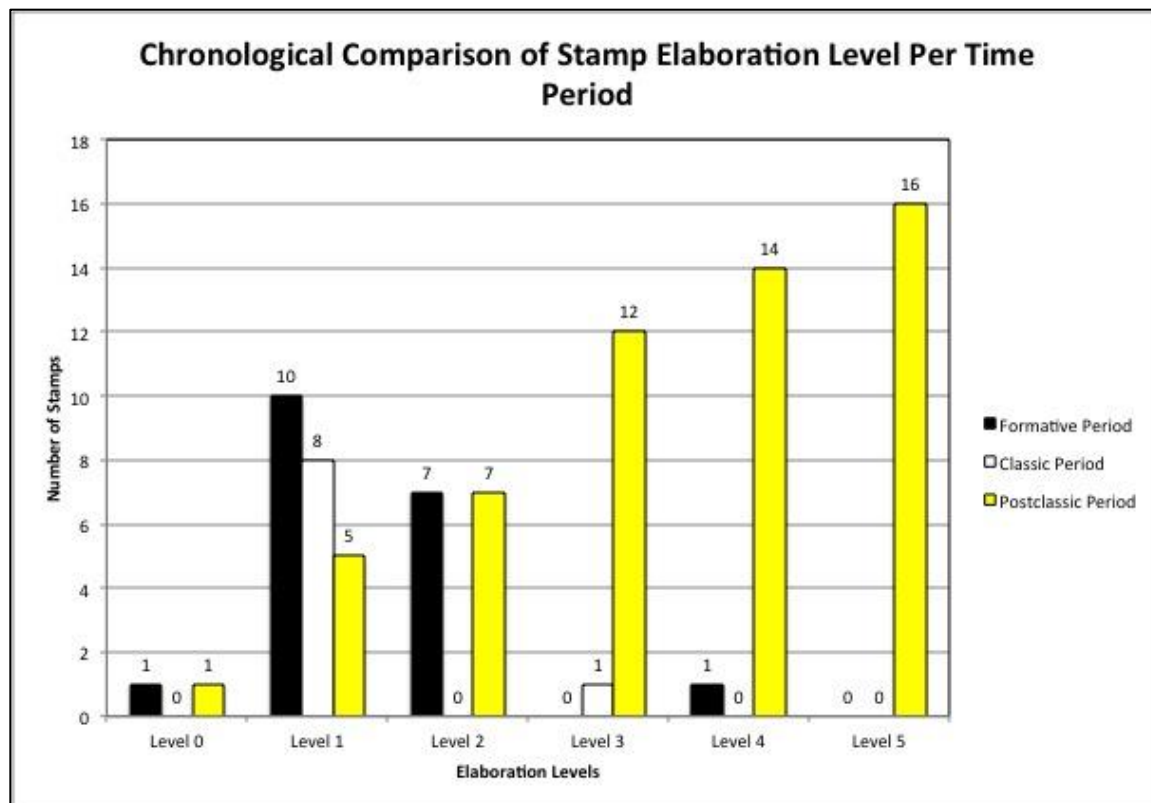


Figure 76: Chronological Comparison of Stamp Elaboration Levels

Table 40: Chronological Comparison of Stamp Elaboration Level Per Time Period

Level of Elaboration	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Level 0	1	5.26	0	0.00	1	1.82
Level 1	10	52.63	8	88.89	5	9.09
Level 2	7	36.84	0	0.00	7	12.73
Level 3	0	0.00	1	11.11	12	21.82
Level 4	1	5.26	0	0.00	14	25.45
Level 5	0	0.00	0	0.00	16	29.09

The distributional patterns of Ranks of motif Craftsmanship were analyzed following Levels of Elaboration. For the purposes of this study the term 'craftsmanship' refers to the crispness, cleanliness, and straightness of the incision lines and overall complete design. For a more detailed description of these elements, or attributes, please see Chapter Two: Materials and Methodology. These attributes were chosen because they indicate the amount of labor investment required to produce the stamp. The amount of labor investment that was required, or appropriate, to create an object is a possible indicator of the value and importance of that object (Chazan 2011; Costin and Hagstrum 2017). As the value and importance of stamps is of interest, it is necessary to attempt to determine the labor investment required for stamps by examining their level of elaboration and rank of craftsmanship.

The Ranks of Craftsmanship include Ranks 1-5, with Rank 1 comprised of the stamps with the lowest degree of Craftsmanship and Level 5 comprised of the stamps with the highest degree of craftsmanship. It should be noted that stamps shaped to match their design motif and not formed with a design on a framed surface were placed within Rank 4 and Rank 5 categories due to their elevated difficulty compared to framed stamps. It should also be noted that stamps fitting the requirements for Rank 4 and Rank 5 Craftsmanship were classified as such even if they appeared to be mold-made. While making a stamp by mold is far less labor intensive than handcrafting a stamp, I included mold-made stamps in Rank 4 and 5 due to the fact that the mold which was used to make them would have had to have been hand-crafted with a high intensity of labor.

Figure 80 and Table 41 below display the results of distributional analysis performed on Ranks of Craftsmanship within the total sample. The data shows that stamps with Rank 4 craftsmanship were most common, constituting 27.71% of the complete dataset.

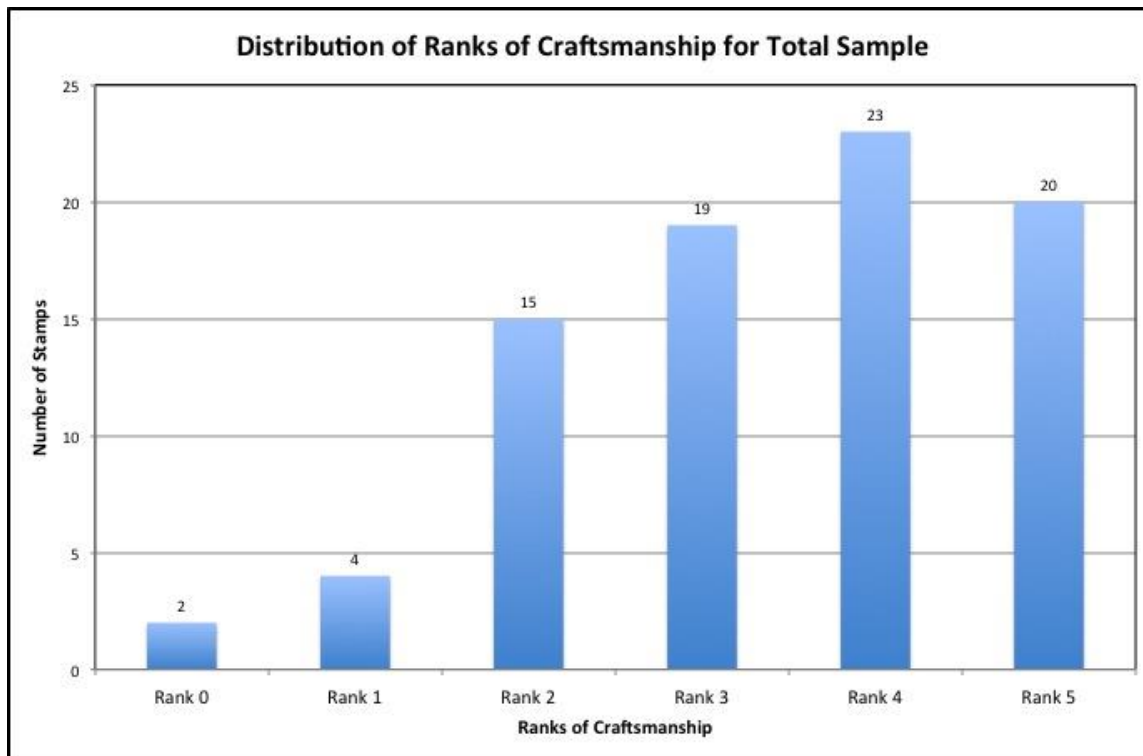


Figure 77: Distribution of Stamp Ranks of Craftsmanship for Total Sample

Table 41: Comparison of Craftsmanship Ranks for Total Sample

Rank of Craftsmanship	Number of Stamps	Relative Frequency (%)
Rank 0	2	2.41
Rank 1	4	4.82
Rank 2	15	18.07
Rank 3	19	22.89
Rank 4	23	27.71
Rank 5	20	24.10

Figure 81 and Table 42 below illustrate the results of chronological distribution analyses of Ranks of stamp craftsmanship within each individual time period. Here the data shows that stamps with craftsmanship Rank 4 and Rank 5 were the most common, as they represent 27.72% and 24.10% of the total sample respectively, as well as representing 34.55% each of all Postclassic Period stamps. During the Formative Period, stamps with Rank 3 craftsmanship were most common, constituting 42.11% of all Formative Period stamps. During the Classic Period, stamps with craftsmanship Ranks of 1 and 3 were equally common, constituting 33.33% of Classic Period stamps each.

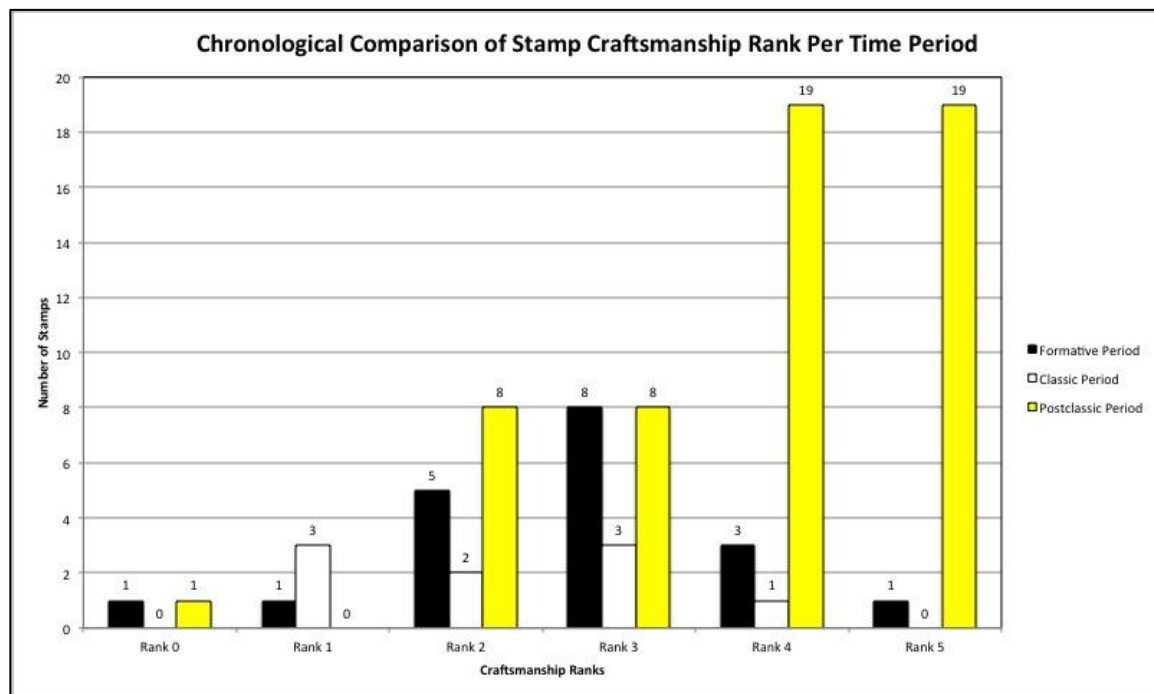


Figure 78: Chronological Comparison of Stamp Ranks of Craftsmanship

Table 42: Chronological Comparison of Stamp Craftsmanship Rank Per Time Period

Rank of Craftsmanship	Number of Formative Stamps	Relative Frequency within Formative (%)	Number of Classic Stamps	Relative Frequency within Classic (%)	Number of Postclassic Stamps	Relative Frequency within Postclassic (%)
Rank 0	1	5.26	0	0.00	1	1.82
Rank 1	1	5.26	3	33.33	0	0.00
Rank 2	5	26.32	2	22.22	8	14.55
Rank 3	8	42.11	3	33.33	8	14.55
Rank 4	3	15.79	1	11.11	19	34.55
Rank 5	1	5.26	0	0.00	19	34.55

Provenience and Iconographic Analysis Summaries

To make these data more easily digestible, results summaries for both the Provenience and Iconographic analyses performed in this study are included below. Table 43 summarizes the results of the Provenience Distribution Analysis within the total sample. Overall, the most common Time Period that stamps in this study dated to was the Postclassic Period, with 55 total stamps and a relative frequency of 66.27%. The most common geographical origin was the Central Mexican site of Nonoalco, with 19 stamps representing 22.89% of the total dataset. The most common status of stamp deposition contexts was stamps from Elite contexts, as there are 36 stamps representing 43.37% of the total sample. Finally, the most common type of architectural

context in which stamps were discovered were Residential contexts, with 60 stamps representing 72.29% of all stamps included in this study.

Table 43: Most Common Results of Provenience Analysis Summary

Most Common:	Result	Number of Stamps	Relative Frequency within Total Sample
Time Period	Postclassic Period	55	66.27%
Location	Nonoalco	19	22.89%
Status Context	Elite	36	43.37%
Architectural Context	Residential	60	72.29%

Table 44 below summarizes the results of the Iconographic Distribution Analyses within the total sample. Overall, the most common primary motifs within the dataset were Nature-themed stamps motifs, with 34 stamps constituting 40.96% of the total sample. The most common Motif secondary category were the 16 stamps depicting Elements & Landscapes motifs, which represent 19.28% of the dataset. The most common tertiary categories were stamps with Lightning motifs and stamps with Sun motifs, with 6 stamps in each class representing 7.23% of the total sample each. The most common Level of Elaboration found on stamps within this study was the 23 stamps with Level 1, representing 27.71% of the sample. Finally, the most common

Rank of Craftsmanship was Rank 4, which also contained 23 stamps representing 27.71% of the total dataset.

Table 44: Most Common Results of Iconographic Analysis Summary

Most Common:	Result	Number of Stamps	Relative Frequency within Total Sample
Primary Motif Category	Nature	34	40.96%
Secondary Motif Category	Elements & Landscapes	16	19.28%
Tertiary Motif Category	Lightning	6	7.23%
	Sun	6	7.23%
Level of Elaboration	Level 1	23	27.71%
Rank of Craftsmanship	Rank 4	23	27.71%

Conclusion

In summary, this chapter has described the results of my quantitative analysis of the contextual and iconographic characteristics of ancient Mexican ceramic stamps. This was achieved through the comparison of relative frequencies. In the following chapter I will interpret these results. In addition, I will further investigate the statistical significance of likewise pairs

that appeared to be of interest following my initial analysis through the use of Chi Square Tests of Association.

CHAPTER FIVE: DISCUSSION

The focus of this thesis has revolved around discovering what the contextual, chronological, and iconographic distribution patterns of Mexican stamps are, and indeed if there are any patterns to discover. In doing so, I have attempted to aid future scholars in determining the function and meaning of these stamps for the ancient peoples that used them. To achieve an understanding of stamp trends I have collected information on 83 stamps with strong provenience from various museums and archaeological projects, compared them in several different ways, and performed both qualitative and statistical analysis on said comparisons. In this chapter, I will discuss the results of those analyses and what they mean within the grander scheme of stamp history and use. I will address what can empirically be said about the history of stamps, who used them, where and when they were used, and how valuable these artifacts were to the people that used them. In addition, I will address the trends, if any, of the iconographic characteristics of these stamps.

For more than 60 years, explanations in archaeological texts regarding the history, function, and meaning of Mesoamerican ceramic stamps have been rare and based largely on unsupported assumptions. The majority of archaeologists who have discussed this topic in the past confidently describe stamps being used to decorate human bodies for thousands of years across most of Mesoamerica (Blomster 2014; Evans 2013; Houston et al. 2006; Markman and Markman 1989; Enciso 1953). A few authors offer additional functions for stamps that also include utilization in decorating textiles (Evans 2013; Houston et al. 2006; King 1979; Enciso

1953). Additionally, other authors offer different functional theories for stamps including their use for decorating pottery (Enciso 1953; Fields 1967; MacNeish et al. 1970) or paper (Enciso 1953; Séjourné 1966; Fields 1967; Walton 1984). The only authors of works that discuss these stamps as truly multipurpose artifacts that were used for a variety of functions were Enciso in 1953 and Fields in 1967.

Out of all of these studies, only two authors (Fields 1967; Séjourné 1966) cited further support for their statements beyond Enciso's 1953 study, which explicitly lacked academic rigor or testing. For the first time, this study has allowed for the testing of these assumptions against legitimate quantitative and qualitative analysis. Its findings have been illuminating, in both the aspects that support previous studies and the aspects that do not.

Contexts of Stamp Use

When speaking of the history of Mesoamerican stamps, the first question that needs to be answered is: when were these stamps used? All of the previous works that describe stamp use claim that stamps were in use for thousands of years, yet none of them cite any sources for such a statement. This assertion is supported by my own analysis. Within my sample the oldest artifacts date to the Early Formative period of ancient Mexico (1600 BCE- 900 BCE), while the youngest artifacts in this study date to the Postclassic period (CE 800-1522). Therefore, stamps were used for over 3,000 years.

Within my sample, there are far more stamps dating to the Postclassic period (55) than either the Formative (19) or Classic (9) periods. At first glance it seemed as though this could have indicated a trend in the increase of stamp use over time. However, it is far more likely that

this disparity in favor of the Postclassic period is due to the nature of my sample rather than any legitimate distributional pattern because my sample is biased in favor of the Postclassic Period. Given current data, there appear to be no trends indicating stamps were more or less common in any given time period.

One of the most fascinating questions pertaining to Mexican ceramic stamps is: who was using these artifacts? It can be said with certainty that they were used by many ancient Mexican cultures including the Olmec, Mixtec, and Aztec. There is also evidence of stamp use outside of ancient Mexico, including among the Maya in Honduras and Guatemala. These Maya stamps were not included in this analysis due to lack of knowledge about their archaeological context. These findings are in line with previous studies, which all claim that stamps were used across Mesoamerica.

Unlike past works however, my analysis also investigated the status contexts in which stamps were found, to determine whether or not these artifacts were used exclusively, or more commonly, by people belonging to a particular social status. The results of my analysis demonstrate that stamp use transcended social status throughout the history of their use in Mexico. They were not found in exclusively elite, non-elite, ritual, or mixed contexts, no matter the time period.

When examined in terms of relative frequency, stamps were marginally more common among elite contexts than non-elite contexts, as stamps from elite contexts comprise 43% of my total sample and stamps from non-elite contexts comprise 34%. However, this difference may be due to the nature of my sample. Even when examined chronologically, comparing status contexts

in the Formative, Classic, and Postclassic periods, the differences in the contexts in which stamps are found seemed insignificant.

However, a Chi-Square Test of Association was conducted to evaluate the null hypothesis that elite and non-elite stamp proportions were equal across all categories. This test was conducted using an alpha of 0.05 and the assumption of an expected frequency of at least five per cell for at least 80% of the cells was not met. Consequently, standardized residuals and effect sizes are also reported to increase confidence in statistically significant results. The chi-square test of association was ultimately statistically significant ($\chi^2=23.017$, $df = 6$, $p\text{-value} < 0.001$).

When running this test of association however, all status contexts present in my sample were included and the standardized residuals suggest that the statistical significance of the tests' result was due to the number of Formative period and Postclassic period ritual context stamps. In this case, there were more Formative period ritual status context stamps than expected and fewer Postclassic ritual context stamps than expected. The Cramer's V effect size was computed to be 0.382, which is interpreted to be a medium or moderate effect. This effect size helps to bolster the significant p-value despite violation of chi-square test of association assumptions.

So there is statistical significance showing that stamps were used more frequently in ritual contexts in the Formative period than in the Postclassic Period. However, while the p-value states that there was a significant difference for elite vs. non-elite, the significant p-value is driven by ritual status contexts in the Formative and Postclassic Period. Thus, from the Formative period of ancient Mexico through the Postclassic period of ancient Mexico, stamps

were used in relatively equal measure by elites and non-elites alike and were not objects belonging exclusively to any particular hierarchical group.

The next facet of stamp context worthy of discussion is where these artifacts were being used and if there were any differences in where they were used over time. In this instance I refer not to the geographical areas in which stamps were found, but the architectural contexts in which stamps were being utilized. There are a substantial number of different architectural contexts within the sites in this sample. These include residential areas, including palaces, in which people lived and performed daily domestic activities such as preparing food, and public spaces such as open plazas, which were used by people belonging to all social statuses for large gatherings and moving through communal spaces. In addition to residences and palaces there are also restricted temple and ritual spaces in which religious activities were performed, administration areas for state and government officials, burials, and spaces for the production of goods, among others. For the purposes of this study and ease of analysis, architectural contexts were grouped into three categories based on what was present within the sample: Public, Residential, and Other.

These three categories were selected because this study has found that stamps are found in rather limited architectural contexts. I have found no evidence of stamp artifacts occurring in burials, ritual caches, temples, or production areas. Stamps are also not found within agricultural areas, nor are they found in spaces related to the ballgame or military such as barracks or armories. A larger sample may make it possible to identify stamps being found in those areas, but from the results of this study extrapolation suggests stamp use or discard in such spaces is

unlikely, particularly in the case of burials because of their low value and their lack of association with burials and known grave goods.

Within this study stamps occur in residential areas in all time periods, and to a particularly overwhelming degree in the Postclassic period. Stamps also occur in Public spaces in all time periods, though such depositions are far more common in the Formative period than in the Postclassic period. The hypothesized relationship that stamps were more common in Public areas in the Formative period and more common in Residential areas in the Postclassic period was statistically examined using a chi-square test of association.

The test was conducted using an alpha of 0.05 and the assumption of an expected frequency of at least five per cell for at least 80% of the cells was not met. Consequently, standardized residuals and effect sizes are also reported to increase confidence in statistically significant results. Ultimately the chi-square test of association was statistically significant ($\chi^2=28.434$, $df = 2$, $p\text{-value} < 0.001$). The standardized residuals suggest this result was driven by stamps found in Public contexts. Specifically, it found that there were more stamps from Public contexts in the Formative and Classic periods than expected and fewer in Public contexts during the Postclassic period than expected. The Cramer's V effect size was computed to be 0.612, which is interpreted to a large or strong effect. This effect size helps to bolster the significant p-value despite violation of chi-square test of association assumptions.

Summary of Stamp Use

It can now be said that while stamps were used in both public and residential areas from the Formative period through the Postclassic period, there is a chronological trend in which stamps were used less in public spaces and more in residential spaces over time. This is further supported by earlier the results stating stamps from ritual status contexts were larger in number during the Formative period and fewer during the Postclassic than expected. This decrease in Postclassic ritual status contexts stamps indicates that stamps were used much less frequently in public, ritual status contexts in the Postclassic than in the Formative. Thus, when both sets of results are combined, they could be indicating that certain kinds of ritual activity shifted from being public and collective to domestic and small-scale over time.

There is also a comprehensive trend in which stamps are more likely to be found in residential spaces than public areas in all time periods. To be common in such a context implies that stamps were utilized frequently and during activities performed in or around the home. As it is today, there are innumerable activities that took place in residential areas in ancient Mexico, one of the most prevalent being food production (Sugiyama and Somerville 2017). The growing of some foods, daily preparation of meals, cooking, and the preparation of foods for tribute gifts and feasting contributions all took place in the home (Smith 2013). Clothing related activities were also commonly performed at home, from dressing for everyday and special events, personal adornment and decoration, to the making and cleaning of garments. Many households, even palaces, also produced their own textiles, weaving and decorating fabric for personal use (Smith 2013). Households were also the space in which children played and were raised, where paper

was produced and used, and the site of building and repairs, personal ceramic production, and daily rituals (Smith 2013).

When considered carefully it is possible that stamps could have been used during many of these activities. Stamps could certainly have been used to decorate foods, particularly tortillas, as they are easily capable of holding a stamped design before cooking and were made extremely often. This could have been done simply to increase the food's presentation value, or make it look 'pretty' or perhaps to mark tortillas made for feasts as being a contribution by a particular donor. The act of decorating something shows care, and food was an incredibly important element in ancient Mexican society, certainly worthy of care.

Stamps could also have been used to temporarily decorate textiles for special occasions. While there is no material evidence that stamps were used this way, even on iconography that depicts Mesoamerican clothing, it is well known to archaeologists that Mesoamericans considered personal decoration and adornment to be highly powerful tools of transformation (Bassie-Sweet 2000; Houston et al. 2006; Markman and Markman 1989; Klein 1986). It is also worth considering that if stamped images were meant to be temporary, if their very importance lay in their transient nature, then it would make sense that those decorations would not be recorded in a permanent manner such as on a mural or codex.

It is also plausible that stamps were used to decorate or sign paper. Paper was a mass produced, accessible commodity in Mexico in the Postclassic Period and while it took knowledge of the process and patience, paper could be made at home (Fernandez 1981:368-369; Walton 1984). Though not much material evidence of this has been preserved in the archaeological record, it is still possible that stamps could have been used to sign personal

documents. In addition, if the act of burning paper containing Metaphysical images was a commonly practiced ritual, as Walton (1984) and others claim, stamps certainly would have been an effective and efficient way to create Metaphysical images on paper.

Using a stamp would also be an effective and efficient way of transferring an image onto pottery during ceramic production. While many previous studies claim that stamping pottery was a common function of stamps, none of them were able to provide images or examples of stamped pottery in the archaeological record. The only evidence I was able to find of stamped pottery was a set of molcajete bottoms excavated by Richard S. MacNeish that not only showed evidence of being stamped, but which were discovered in close proximity to a stamp artifact bearing an identical design to one of the molcajete sherds (Figure 10) (MacNeish et al. 1970:230). Thus, it is likely that at least one of the functions of stamps was to decorate pottery.

Finally, it is possible that stamps and the images they imparted were not important in any ritual or official sense. They could simply have been the toys of children. Child play certainly occurred in and around the home, and it is highly unlikely that children didn't have a myriad of toys and games to play in ancient Mexico. Children today commonly play with stamps, marking paper, dirt, cookie dough, and countless other surfaces. Stamps are an effective and harmless way to occupy children without risking the damaging of themselves or valuable objects around the home. Especially if stamps were objects of high accessibility and low value, there would be no reason not to let children play with them.

Value of Stamps

The idea of whether or not stamps were valuable objects in ancient Mexico is another characteristic that has not previously been examined but which contributes to the understanding of stamp function and meaning. According to Lesure (1999:24), an artifact's value should not be determined within a dichotomy, but rather its place along a processual gradation of value within a society. To expand this idea, Lesure argues that items are not simply valuable or worthless but instead fall somewhere upon a scale of low value to high value.

Determining the level of value of an artifact can be achieved by examining its "degree of alienability" or degree to which the object was to be exchanged or cherished, and the "kinds and scales of social interactions in which they were most salient" (Lesure 1999:30-31). Objects of high value should show signs of being inalienable, of being family heirlooms or objects that carry history that were rarely exchanged. They would also be unique and easy to identify, very rare, and rarely found disassembled.

While stamps are unique and easy to identify compared to other artifacts, there are no noticeable gradations in size, form, or specificity that indicate any stamp in particular was extraordinarily unique compared to others. Also, while they are rare to find archaeologically, there is no evidence that they were rare within the societies in which they were used. There is no statistically significant degree of differentiation in their distribution. For instance, they are found essentially equally in both elite and non-elite contexts, and in both public and residential contexts, which implies that they were alienable objects that involved in horizontal relations (Lesure 1999:32). Stamps show no evidence of being consciously preserved or well cared for, as very few stamps have been found entirely intact. In addition, stamps can be found in groups of

more than one, which is another indication of an alienable object. In contrast, inalienable objects are commonly kept separate from other items due to their high value. In addition, the uniformity of motif design in the Postclassic period shows that these items were not unique, another sign of an alienable, low value artifact. Thus, we can now say with a relative degree of certainty that stamps were widespread, easily made, easily accessible, and though rare, were likely valueless items.

Stamp Iconography

In the initial stages of this study, I created a qualitative iconography classification system to aid in recognizing patterns in stamp iconography. This classification system included seven Primary Motif Categories, with each category possessing Primary, Secondary, and Tertiary Subcategories. This classification has allowed for an initial analysis of: what stamps do and do not depict; the most commonly depicted iconography on stamps in comprehensive, chronological, and geographical terms; the differences in iconography according to status context; and the patterns of iconographic distribution according to architectural context. Thus, the results of these analyses can aid future scholars in determining what meaning and function stamps held for ancient Mexicans.

Stamp Motifs and Status Context

The first and most obvious question as to the nature of stamp iconography is: what images do stamps depict? One of the most fascinating traits of these artifacts is the myriad of motifs to be found on them. In my sample alone stamps contain motifs of birds and animals of prey, flowers, leaves, butterflies, scorpions, geometric patterns, astronomical symbols,

cosmograms, deities, and fantastic predators, to name just a few. Categorizing these motifs into a scheme has allowed us to look rigorously at stamp iconography for the first time. The Primary Motif Categories created for this study consisted of Metaphysical Symbols, Nature motifs, Object images, Human motifs, Geometric images, Blank stamps, and stamps too Fragmented to identify. The distributional patterns of Blank and Fragmented stamps will not be discussed as they are not useful for the purpose of discovering the characteristics and trends in stamp iconography.

On a comprehensive scale, the most common iconographic images by far were those classified as depicting Metaphysical (29%) and Nature (41%) symbols in the total sample. This is true in each individual time period as well, though it is most emphasized in the Postclassic when Metaphysical and Nature motifs increased in popularity, making up 33% and 45% of all Postclassic stamps, respectively. The hypothesized relationship that Metaphysical and Nature iconographic motifs increased in popularity over time while Geometric motifs decreased was statistically examined using a chi-square test of association.

This test was conducted using an alpha on 0.05 and the assumption of an expected frequency of at least five per cell for at least 80% of the cells was met. In the end the chi-square test of association was not statistically significant ($\chi^2=1.345$, $df=4$, $p\text{-value } 0.854$). Consequently, this test failed to reject the null hypothesis of a relationship between Primary motif categories and time at the 0.05 level of significance. Thus, while Metaphysical and Nature motifs are the most common motifs depicted on stamps, no motif types appear to have increased or decreased in popularity over time. This implies that whatever function and meaning stamps

held to ancient Mexicans, stamp motifs perhaps had a consistent function and meaning from the Formative through Postclassic periods.

In addition to investigating what images stamps depict, it is also worth considering what stamps do not depict. For while there are multitudinous motifs, there are certainly motifs that as of yet do not appear to have been carved into stamps. For example, stamps do not appear to depict prey or domesticated animals, individual weapons, battles or events, or calendar signs. They also do not depict skeletons, death symbols, toys, food, clothes, women, or children. There are some instances of male figures on stamps from the Maya region, but there are none present within my sample.

The next question of stamp iconography that I considered in the search for distributional trends was: who was using these motifs? In essence, could any difference in motifs be traced to the status context of the motif's user? Were metaphysical motifs used more commonly by elites given their higher status in society? To answer these questions, I initially performed analysis focused on the relative frequencies of motifs within different status contexts. Overall, there were of course the higher frequencies of Metaphysical and Nature motifs than Object, Human, or Geometric motifs in all status contexts. However, the differences between Metaphysical and Nature motifs within elite contexts (13% and 19%) versus non-elite contexts (15% and 12%) seemed negligible and unlikely to indicate a trend.

A chi-square test of association was performed to statistically determine the relationship between motif types and motif status contexts using an alpha of 0.05. For this test, the Object, Human, and Geometric primary motif categories and Ritual and Mixed status contexts were omitted in order to achieve the expected frequency of at least five per cell and produce a stronger

result. Thus, during this test, Non-Elite and Elite status context stamps were compared with the stamps featuring Metaphysical and Natural motifs. Ultimately, the chi-square test of association was not statistically significant ($\chi^2=0.928$, $df=1$, p -value 0.336). Thus, this test failed to reject the null hypothesis that there was no relationship between motif type and motif status at the 0.05 level of significance. So it can now be said somewhat confidently that there is no difference in the types of stamp motifs used by elite and non-elite members of society.

Another chi-square test of association was performed to determine if this lack of relationship between motif type and motif status was equally true in the Formative, Classic, and Postclassic periods. This test was performed using an alpha of 0.05 and the expected frequency of at least five per cell was met. Ultimately this chi-square of association test was also not statistically significant ($\chi^2=2.027$, $df=3$, p -value 0.567). Thus, the test failed to reject the null hypothesis that there was no relationship between motifs over time and motif status context at the 0.05 level of significance.

Accordingly, it appears that there are no trends to be found between the types of motifs found on stamps and the status contexts in which the stamps were found. There are no symbols that appear to be exclusive to the elite or non-elite members of society. These artifacts do not appear to have been tightly regulated or controlled, even when depicting metaphysical or religious images. Stamp motifs appear to transcend social status as much as the artifacts themselves do. Stamps of all kinds were used by all kinds of people, likely for the same kinds of activities.

Stamp Motifs and Architectural Contexts

Another line of investigation I considered when analyzing stamp iconography was the question of where motifs occurred. Was there any difference in the motifs stamps depicted that correlated with the architectural context in which they were used and found? Were any motifs exclusive to any particular architectural context? From my initial comparative analysis of the total sample it seemed as though the only trend to be found was that all primary motif categories were more common in residential contexts than public ones, particularly Metaphysical and Nature motifs.

A chi-square test of association was performed to statistically determine if this hypothesized relationship between primary motif categories and architectural contexts was significant. The test was conducted using an alpha of 0.05. The assumption of an expected frequency of at least five per cell for at least 80% of the cells was met. This was due to omitting the Object and Human primary motif categories and the Other architectural context from the test. This chi-square test of association proved to not be statistically significant ($\chi^2=2.182$, $df=2$, p -value 0.335). Thus, the test failed to reject the null hypothesis that there was no difference in the proportions of Metaphysical and Nature motifs in Residential contexts and Public contexts at the 0.05 level of significance.

A further chi-square test of association was performed to determine if the lack of a relationship between motif type and architectural context was true over time as well. The test was again conducted with an alpha of 0.05. The assumption of at least five per cell for at least 80% of the cells was met. Again, the Object and Human primary motif categories and the Other architectural context were omitted from this test in order to achieve the expected frequency per

cell. However, standardized residuals and effect sizes are also reported to increase confidence in statistically significant results. The assumption of independence was not met since the artifacts were not randomly selected, thus there is an increased probability of a Type I error.

Interestingly, the chi-square test of association was statistically significant ($\chi^2=28.972$, $df=3$, $p\text{-value} < 0.001$). The standardized residuals suggest this result was driven by stamps that bear Nature motifs and date to the Formative period. To be more specific, the test found that there were fewer Formative period stamps with Nature motifs found in residential areas than expected and more Formative period stamps with Nature motifs found in public spaces than expected. The Cramer's V effect size was computed to be 0.719, which is interpreted to be a large or strong effect. This effect size helps to bolster the significant p-value despite violation of chi-square test of association assumptions.

Thus, it seems that the relationship between motif type and architectural context over time does contain a trend, but it is a small one. During the Formative period, it appears that stamps with Nature motifs were more common in public spaces than in residential areas. However, there is no evidence that this trend continued beyond the Formative period. There is also no evidence that Metaphysical motifs were more common in any particular architectural context, and there is evidence that stamps with Nature motifs were not exclusively used in public areas during the Formative period. It is also worth noting that these results are very similar to the results of my chi-square test of association evaluating the relationship between stamp artifacts and the architectural contexts in which they were found throughout the time. Therefore, this result could be due to the fact that there were simply more stamps found in Public contexts rather than Residential contexts than expected in general during the Formative.

Stamp Motif Elaboration and Craftsmanship

The final characteristics of stamp iconography that I analyzed for trends were those of Elaboration and Craftsmanship. Within the Elaboration scale, stamps with Level 0 motifs have the least complexity and those with Level 5 motifs have the most complexity. This analysis was conducted to determine if there were any trends in the complexity of stamp motifs over time, which in turn might aid in the determination of stamp meanings as well as our knowledge of stamp production.

A chi-square test of association was conducted in order to determine the relationship between Elaboration Levels and time. The test was conducted using an alpha of 0.05. The assumption of an expected frequency of at least five per cell for at least 80% of cells was not met. Consequently, standardized residuals and effect sizes are also reported to increase confidence in statistically significant results. The assumption of independence was not met since the artifacts were not randomly selected, thus there is an increased probability of a Type I error.

Ultimately the chi-square test of association was statistically significant ($\chi^2=47.447$, $df=8$, $p\text{-value} < 0.001$). The standardized residuals suggest this result was driven by stamps with Level 1 elaborate motifs dating to the Formative, Classic, and Postclassic periods. Specifically, there were more Level 1 and 2 stamps during the Formative period than expected, more Level 1 stamps in the Classic period than expected, and fewer Level 1 stamps during the Postclassic period than expected. The Cramer's V effect size was computed to be 0.541, which is interpreted to be a large or strong effect. This effect size helps to bolster the significant p-value despite violation of chi-square test of association assumptions.

Essentially, this result implies that crude Level 1 stamp motifs were more common than Level 0 or 2-5 motifs during the Formative and Classic Periods. Then, during the Postclassic period, these Level 1 cruder stamp motifs became far less common than Levels 2-5. It can now be said that stamp motifs did increase in complexity and elaboration over time, though cruder stamps were not abandoned at any point in time. These results have particular significance when one considers them in terms of stamp production. The fact that stamp motifs increase in complexity and elaboration over time is a sign of technological advancement and shift in stamp production scale, which is further supported by several stamps from the Late Postclassic period being identical in design. However, crude stamp designs infer a less formal and homemade production process and since they do not disappear in the archaeological record, it seems that even when stamps were possibly being mass produced they were also still being made in domestic areas for personal use.

In regard to the Craftsmanship, the only trends indicated by my initial comparative analysis were that Postclassic period stamps with Rank 4 and Rank 5 motifs appeared to be the most common by far, and that motifs of Ranks 0 and 1 were never very common at all. A chi-square test of association was conducted in order to statistically determine the relationship between Craftsmanship and Time. The test was conducted using an alpha of 0.05. The assumption of an expected frequency of at least five per cell for at least 80% of cells was not met. Consequently, standardized residuals and effect sizes are also reported to increase confidence in statistically significant results. The assumption of independence was not met since the artifacts were not randomly selected, thus there is an increased probability of a Type I error.

It should be noted once again that stamps shaped to match their motifs, such as those in Figures 81 and 82 below, were automatically placed within Rank 4 or 5.



Figure 79: Late Terminal Formative Period stamp from Rio Viejo shaped to match its scorpion motif

Photo Source: Elizabeth R. Peabody



Figure 80: Late Postclassic Period stamp from Nonoalco shaped to match its Quetzalcoatl motif

Source: Catalogue No. 30.2/2017, Courtesy of the Division of Anthropology, American Museum of Natural History

Ultimately the chi-square test of association was statistically significant ($\chi^2=34.144$, $df=8$, $p\text{-value} < 0.001$). The standardized residuals suggest this result was driven statistically by stamps with Rank 1 craftsmanship motifs dating to the Classic period. Specifically, the data suggests there were more Rank 1 stamps during the Classic period than expected. The Cramer's V effect size was computed to be 0.459, which is interpreted to be a medium or moderate effect. This effect size helps to bolster the significant p-value despite violation of chi-square test of association assumptions. Thus, the null hypothesized relationship between Rank 1 motifs and time was partially rejected at the 0.05 level of significance.

However, while these results indicate that simple and crude motifs on stamps became far less common by the Postclassic period, it should be noted that this may not be the case since I lack any Rank 1 stamps dating to the Postclassic period within my sample. Thus, the lack of Rank 1 stamps during the Postclassic may be due to the fact that my sample is not fully representative of stamps in all of ancient Mexico. It is also worth noting that while they did not statistically drive my result, there were more stamps with Craftsmanship Ranks 4 and 5 dating to the Postclassic period than expected.

Together, these results for Elaboration and Craftsmanship could indicate that the means and scale of production had at least partially changed from personally hand crafting stamps to making stamps with molds over time. While the art of handcrafting never completely fell out of fashion in ancient Mexico, the number of highly Elaborate and well-made stamps in the Postclassic indicate that stamps at some point began to be made using a mold, which in turn could indicate an increase in the scale of stamp production. This is because the intensity of the labor required to create designs of such complexity and intricate detail in such a clean and uniform manner would have been rather high; such an item would have been an item of at least moderate value. Nothing in my research indicates that stamps were particularly valued commodities worthy of such labor.

In addition, a few of the stamps in my sample with extremely complex motifs are almost identical to each other, an intensely difficult feat if they were hand-crafted. One last thread of support for the theory of stamps being mass produced is that items made in such a manner are meant to be exchanged. This is of import because items that portray elite symbols, such as stamps with Quetzalcoatl motifs, but that are found in both elite and non-elite contexts suggest

that such items were traded in markets (Hirshman 2008:307). Thus, the likelihood of stamps produced cheaply and en masse via a mold is rather strong. Indeed, the American Museum of Natural History in New York has 10 artifacts they label specifically as possible stamp molds in their collection that dates to the Postclassic period, including the two examples shown in Figure 84 below.



Figure 81: Two Possible Stamp Molds from the American Museum of Natural History Collection

Source: Catalogue Nos. 30.0/2542, 30.2/8786, Courtesy of the Division of Anthropology, American Museum of Natural History

Conclusion

What can now be empirically stated about Mesoamerican ceramic stamps is quite substantial. These artifacts were certainly used for over 3,000 years, from at least the Early Formative through the Late Postclassic periods of Mexico. They were also used throughout

Mexico, from Southern Oaxaca to Tenochtitlan and beyond. There is also evidence they were used in Guatemala, Honduras, and other Mesoamerican regions (Halperin 2008).

Stamping practices appear to have transcended social status, as they are found in elite, non-elite, and ritual contexts. There is a trend where they seem have been used more commonly by in ritual status contexts in the Formative period than by those of ritual status in the Postclassic period.

Another point we can definitively make is that stamps were used in both Residential and Public contexts. They also appear to have been used more commonly in public spaces during the Formative period but became more common in residential areas over time. There is no evidence that stamps were placed in burials, temples, agricultural areas, or caches.

It is extremely unlikely that stamps were considered valuable objects to their owners and users. They may be rare archaeologically, but there is no evidence of them being well cared for or preserved. In addition, they are not found in temples or other socially important areas, nor are they found with other objects of high value. In short, they appear to have been easily made, easily accessed, and easily discarded.

In terms of the iconography of ceramic stamps, the amount of legitimate information we now have also outstrips previous works. While there is a plethora of motif designs for stamps, there is no evidence of stamps bearing symbols representing death, calendar signs, or prey animals, among others. While Metaphysical and Nature motifs are by far the most common type of design to find on stamps, no motif type seems to have increased or decreased in popularity over time.

There is also no difference in types of motifs found in different status contexts. Like stamps themselves, stamp motifs appear to not be highly regulated and transcend social status. There is also no meaningful difference in types of motifs found in different architectural contexts. Formative period stamps bearing Nature motifs are statistically more common in public spaces than residential areas. However, they were never exclusive to public contexts and this trend does not seem to have continued in the Classic and Postclassic periods.

Motifs do increase in complexity and elaboration over time though. While simple motifs do not appear to have ever been completely abandoned, overall stamp motifs are more complex, necessitating more incisions and incorporating more elements into the complete design in the Postclassic period than in the Formative or Classic periods. In addition, while the craftsmanship of stamps and their motifs increased greatly over time, the only statistically significant trend to be found was that less well-made stamps were more common in the Classic period than anticipated. There is also evidence that stamps were being mass-produced using molds during the Postclassic period and thus some were standardized.

While none of these analyses have been able to definitively determine the function and meaning of Mexican ceramic stamps, this was not the true aim of this study in the first place. The main goal of this investigation was to provide a springboard of legitimate data about the characteristics and trends of Mesoamerican stamps so that future studies could begin to empirically untangle the mystery of stamp function and meaning. My second goal was to highlight that previous scholars who described stamps were making statements that had little scientific basis. And indeed, I have found no categorical evidence of stamps being used to decorate the human body, textiles, codices, or any other type of surface. There is some evidence

that stamps were used to decorate pottery, but there is no evidence that this was a widespread or common function of stamps. It is most likely that stamps were multipurpose artifacts that were used on a variety of possible surfaces. Essentially, what can empirically and legitimately be said about ancient Mexican stamps and stamping practices is now greater than it has ever been, but also serves to highlight the fact that scholars generally cannot currently support the claims they make when it comes to these fascinating artifacts.

CHAPTER SIX: CONCLUSION

At the beginning of this work, I posed three research questions pertaining to Mesoamerican ceramic stamps that have been chiefly overlooked within academia. First, what are the chronological, spatial, and design characteristics of stamps? Second, are there any trends or patterns in the distribution of these stamp characteristics over time? Third, do these findings align with what has been previously published about stamp characteristics and practices? In order to answer these questions, I compiled a sample of 83 stamps with well-documented proveniences from the Rio Verde Project in Oaxaca, Mexico, and the collections of the American Museum of Natural History and the Robert S. Peabody Museum of Archaeology. The sample was then subjected to in-depth identification, categorization, and comparative analysis in addition to statistical analysis in pertinent situations. Ultimately, I believe that my research has substantially contributed to determining the chronological, contextual, and iconographic characteristics of Mesoamerican stamps, but it has also uncovered more questions to ask and further areas in need of scholarly attention.

This study has, for the first time, empirically proven that stamps were used across Mexico for over 3,000 years, from at least the Early Formative Period until the Spanish Conquest. I have also discovered that stamps appear to have transcended social status, used essentially equally by elites and non-elites alike. People from varying statuses also appear to have used stamps in both public and residential spaces, though it is likely they were used predominantly in residential contexts. In an interesting turn, my research has also ascertained that stamp artifacts are not found in burials, temples, or architectural caches. Additionally, I have also discovered that

stamps with motifs usually associated with elites, such as Quetzalcoatl and Ehecatl, appear in both elite and non-elite contexts. When an artifact shares such traits as these simultaneously, it is appropriate to extrapolate that stamps were unlikely to be considered valuable objects. Thus, my work has illuminated that stamps were likely objects of low-value to the people who used them.

Contrary to my expectations, I was able to identify only a few trends in the distribution of these characteristics through time. Stamps appear to have been used by professional ritual practitioners, individuals whose elite status lay in performing a necessary role in communal rituals, more in the Formative period than in the Postclassic period. I also uncovered evidence that stamps were used less in public contexts and more commonly in residential contexts over time. These trends prove that these artifacts became more popular and more common over time, a shift which could have been caused by a decrease in the importance, or value, of stamps or stamping practices within the society. Further investigation as to the possible meaning of these trends is one area in need of future study.

In regard to the characteristics and trends in stamp iconography, this study has again contributed much to our knowledge of these artifacts. Stamps do indeed depict a myriad of motif designs, though this study has demonstrated certain motifs were not depicted, such as death symbols, calendar signs, or prey animals. I discovered that the most common images found on stamps are metaphysical and nature motifs. In addition, I have found that there appears to be no difference in the types of motifs depicted on stamps that can be linked with status. Likewise, there seems to be no great difference in motif types based on the architectural context in which the stamp was found. People of all statuses and in all places in which stamps were found were using the same motifs on whatever they were stamping.

As with the spatial and chronological characteristics of stamps, I found very few trends within the characteristics of stamp iconography over time. Overall no type of motif appears to have increased or decreased in popularity over time. However, I did shed light upon the fact that nature motifs were more common in public contexts than residential ones during the Formative period. There is also a trend in which stamps with Nature motifs were more common in public than in domestic areas during the Formative Period. I also determined stamp motifs increased in design complexity and elaboration over time. And in fact, it seems that stamps with a moderate to high level of craftsmanship were more common in the Classic period than expected. However, stamps with crudely made and simple motifs never completely dropped out of use.

The fact that stamp motifs increase in design complexity, elaboration, and uniformity over time could be indicative of advances in ceramic technology and production over time. Specifically, this trend of increasingly common and available identical complex stamp motifs could indicate a shift in stamp production from primarily hand-made stamps intended for individual use to primarily mass-produced mold-made stamps. This is another area in which further study into the meaning of these findings is indeed necessary.

In regard to how my findings align with the statements of previous authors on the subject of stamps, the conclusions are mixed. I have found the basic chronological and geographical characteristics of stamps to be in line with past studies. As to characteristics of stamps related to status and architectural context, there were no previous studies to compare results with. However, I have found great discrepancies in regard to what scholars claim the function of these artifacts was in ancient times. I have found only one account in which it can be proved that stamps were used to decorate pottery (MacNeish 1970:190). At the very least it does not appear

to have been a primary or exclusive function of stamps. In addition, I have found no definitive evidence that stamps were used on human bodies, which is the most popular claim about stamp function. Thus, the idea that stamps contribute to our understanding of ancient Mexican decorative identity practices has been shown to be false. I have also found no conclusive evidence of stamps being used on textiles, paper, or indeed any other particular surface.

What I have been able to extrapolate from my data is that stamps were very likely multipurpose tools that served to decorate many surfaces. They could absolutely have been used to decorate textiles and pottery as well as paper. They also could have been used to decorate food or functioned as toys for children. Ultimately, they could have been used for all of these purposes and it seems highly unlikely that they possessed any single and exclusive function.

The meaning that these artifacts and their motifs held for their users also remains a mystery thus far. However, with this study we are certainly closer to determining their meaning than we have ever been before. We can resolutely state that stamp motifs come in an incredible variety, from concentric circle and step-fret geometric designs to scorpions, butterflies, monkeys, and birds to flowers, leaves, and suns, and many more. We now know that the most prevalent motifs found on stamps are those corresponding to metaphysical and nature elements. Within the category of metaphysical motifs, those related to the deities Ehecatl and Quetzalcoatl were most common followed by metaphysical nature symbols such as symbols representing Venus and metaphysical sun symbols. Within nature motifs those related to natural elements, particularly lightning and sun symbols, were most common. And fauna motifs, particularly butterflies and monkeys, were second-most common.

It is possible that these iconographic characteristics could indicate that stamp motifs held some form of religious importance, or that their meaning is intertwined with Mesoamerican cosmological beliefs. Ancient Mexican cosmology was highly complex and extraordinarily nature-based (Houston et al. 2006; Miller and Taube 1993; Sellen 2002). Natural elements such as earth, water, air, fire, planets, and stars feature heavily in Mesoamerican religion and ancient Mexican deities are always connected to and representative of one or more of these elements. It is possible that the stamps I have categorized as being strictly nature symbols rather than metaphysical nature motifs could still have held religious meaning to their users. However, this is only a tentative suggestion extrapolated from my particular sample and much further iconographic study and interpretation is required before archaeologists can state with any certainty what the meaning of stamp motifs truly might have been.

Despite the questions that remain, my research benefits the anthropological community first and foremost by providing a new dataset and new general knowledge on an unusual and yet widely found artifact class. In turn, this knowledge has enhanced our understanding of ancient lifeways, technologies, and economies. In a broader sense I have also taken the first steps along a new path to exploring household, identity, and possibly religious, practices in ancient Mexico via these artifacts. However, I believe it is equally important that my work has brought to light that many claims about stamps being stated as known fact in previous academic works are largely unsubstantiated. In the future archaeologists need to be more careful and discerning about their sources and the statements they make about these artifacts. All of this demands that further study on stamp artifacts, stamp function, and stamp meanings be conducted in the future.

Looking Forward

There are a number of areas in need of future research when it comes to Mesoamerican ceramic stamps. The archaeological record would indubitably benefit from further investigation of evidence of stamping practices in codices, on pottery (particularly *molcajete* bowls), and on textiles. Further study into the distributional patterns of stamps is also needed, particularly if it could be done with a larger and more representative sample. The determination of stamp function and meaning would also benefit from research on stamps from other Mesoamerican regions and cultures and comparisons were made. Future research could also focus on further study of Mexican household activities, rituals involving paper, and food preparation practices. In addition, further analysis and interpretation of stamp motifs is badly needed. I think it could be particularly helpful to further investigate whether motifs similar to those found on stamps' is found on other artifacts, such as pottery or murals. It would also be illuminating to identify the nature of the importance between what stamps do and do not depict. Altogether, there is a great deal the anthropological community could learn from stamps, as they have shown themselves to be fascinating and challenging artifacts that could help enlighten our understanding of ancient Mesoamerican life.

APPENDIX A: MUSEUMS WITH MESOAMERICAN STAMPS

Museum	Number of Stamps	Stamp Types	Provenance
American Museum of Natural History	340	Flat and Roller	Donated by M.H. Saville in 1896 and 1898 (expedition), William Niven in 1894 and 1897, Dr. Carl Lumholtz in 1897 (expedition), Dr. Ales Hrdlicka in 1898 (expedition), Gifted by Robert H. Lamborn Estate in 1900, Purchased from J. Dorenberg in 1901, Dr. Herbert J. Spinden 1911 (expedition), 1914, Purchased from Avon 1914, Purchased from Justo Armas in 1918, Permanent loan from MMA in 1923, Dr. George C. Vaillant 1931/32/36 (expedition), Dr. Junius Bird 1931 (expedition), Gifted by Clarence L. Hay in 1937, Dr. Gordon F. Elkholtz 1943 (expedition), Gifted by Anonymous in 1947, Gifted by Nina O'Neill in 1981,
The Metropolitan Museum of Art	14	Flat and Roller	Purchased in 1900 from Louis Petich Collection, Gifted by Michael C. Rockefeller Memorial Collection in 1965 & 1979,
Peabody Museum of Natural History at Yale	77	Flat and Roller	N/A
Dallas Museum of Art	9	Flat	Gifted by Nashers and Doziers
Gilcrease Museum	9	Flat	N/A
Field Museum	78	Flat and Roller	Martin A. Ryerson, C. B. Abadiano; Museo Nacional de Antropología - Mexico; W. H. Rice; O. F. Aldis; F. Starr, F. Starr;
Princeton University Library Graphic Arts Collection (Stored at Firestone Library)	147	Flat and Roller	Gifted by Gillett G. Griffin in 1966
The British Museum, London	62 w/ Media, ~20 w/o	Flat and Roller	Purchased from Joseph Pyke 1946, Purchased from Mr. Young 1855, Donated by Henry Christie 1860-1869, Purchased from Captain Evan Nepean in 1844. Some note "Field Collectors"
Robert S. Peabody Museum of Archaeology, Massachusetts	4	Flat	Excavated by Robert MacNeish,

Museum	Number of Stamps	Stamp Types	Provenance
Peabody Museum of Archaeology and Ethnology at Harvard University	137	Flat and Roller	N/A
University of Pennsylvania Museum of Archaeology	6 w/ media, 80 w/o	Flat and ?	Exchange with Field Museum 1931, Gifted by William Pepper 1888, Gifted by C. Maurice Keating 1953, Purchased from H.A. Monday in 1929,
Los Angeles County Museum of Art	6 w/ media, 1 w/o	Flat and Roller	Gifted by Camilla Chandler Frost and Stephen and Claudia Muñoz-Kramer in 2007, Gifted by Constance McCormick Fearing in 1986, Gifted by Joseph and Barbara Goldenberg in 2016
National Museum of the American Indian	15	Flat	Purchased from Frances Pratt 1969, Acquired from Dr. J.E. Austin in 1915, Purchased from H.H. Rice in 1919, Collected by Gregory Mason in 1932, Purchased from 'Unknown' in 1949, Donated by Edward Merrin in 1970
Denver Museum of Nature and Science	4	Roller	N/A
Snite Museum of Art, University of Notre Dame	49	Flat and Roller	Gifted by Peter David Joralemon in 1994, 1999, and 2003.
Hudson Museum, University of Maine	7	Flat and Roller	Gifted by William P. Palmer III 1965-1970
Museo de Antropologia de Xalapa	40	Flat and Roller	N/A
Museo Chileno de Arte Precolombino	8	Flat and Roller	N/A
Museo Nacional de Antropologia	?		
National Museum of Mexican Art, Chicago	?		

APPENDIX B: SAMPLE SET SPREADSHEETS

Spreadsheet of Sample Contextual Attributes

Thesis ID	Catalogue Number	Time Period	Site	Region	Architectural Context	Status Context	Donor
1	SL.e	Early Formative Period	San Lorenzo	Southern Mexico	Unknown	Unknown	Coe
2	200/1005	Early Formative Period	Puebla	Central Mexico	Residential	Unknown	MacNeish
3	30.1/8257	Late Formative	Ticomán	Central Mexico	Residential	Elite	Vaillant
4	30.0/9554	Late Formative	Ticomán	Central Mexico	Residential	Non-Elite	Vaillant
5	30.0/8000	Late Formative	Ticomán	Central Mexico	Residential	Non-Elite	Vaillant
6	30.0/6931	Late Formative	Zacatenco	Central Mexico	Burial/Midden Wash	Elite	Vaillant
7	30.0/9348	Late Formative	El Arbolillo	Central Mexico	Residential	Mixed	Vaillant
8	Y1	Early Terminal Formative	Yugue	Southern Mexico	Residential Midden	Non-Elite	PRV
9	3 8751	Terminal Formative	Cerro de la Virgen	Southern Mexico	Public	Elite	PRV
10	3 9117	Late Terminal Formative	Cerro de la Virgen	Southern Mexico	Public	Mixed	PRV
11	6424	Late Terminal Formative	Cerro de la Virgen	Southern Mexico	Residential	Elite	PRV
12	1744	Late Terminal Formative	Yugue	Southern Mexico	Public	Ritual Refuse	PRV
13	8168	Late Terminal Formative	Rio Viejo	Southern Mexico	Public fill	Ritual refuse	PRV

Thesis ID	Catalogue Number	Time Period	Site	Region	Architectural Context	Status Context	Donor
14	11701	Late Terminal Formative	Rio Viejo	Southern Mexico	Public and Ritual fill	Mixed	PRV
15	11748.1	Late Terminal Formative	Rio Viejo	Southern Mexico	Public fill	Non-Elite	PRV
16	11748.2	Late Terminal Formative	Rio Viejo	Southern Mexico	Public	Ritual refuse	PRV
17	12217	Late Terminal Formative	Rio Viejo	Southern Mexico	Public	Ritual Refuse	PRV
18	9511	Late Terminal Formative	Rio Viejo	Southern Mexico	Public construction fill	Non-Elite	PRV
19	12130	Late Terminal Formative	Rio Viejo	Southern Mexico	Public	Ritual Refuse	PRV
20	30.1/3746	Classic Period	San Juan Teotihuacan	Central Mexico	Public	Elite	Vaillant
21	30.1/3745	Classic Period	San Juan Teotihuacan	Central Mexico	Public	Elite	Vaillant
22	30.1/3744	Classic Period	San Juan Teotihuacan	Central Mexico	Public	Elite	Vaillant
23	30.1/3743*	Classic Period	San Juan Teotihuacan	Central Mexico	Public	Unknown	Vaillant
24	30.1/3742	Classic Period	San Juan Teotihuacan	Central Mexico	Residential	Unknown	Vaillant
25	3 12164	Late Classic Period	Loma Don Genaro	Southern Mexico	Residential	Elite	PRV
26	3 5421	Late Classic Period	Loma Don Genaro	Southern Mexico	Residential fill	Elite	PRV
27	3 12026	Late Classic Period	Rio Viejo	Southern Mexico	Residential	Elite	PRV
28	11079	Late Classic Period	Rio Viejo	Southern	Public	Ritual fill,	PRV

Thesis ID	Catalogue Number	Time Period	Site	Region	Architectural Context	Status Context	Donor
				Mexico		Mixed	
29	SL.a	Early Postclassic	San Lorenzo	Southern Mexico	Unknown	Unknown	Coe
30	SL.b	Early Postclassic	San Lorenzo	Southern Mexico	Unknown	Unknown	Coe
31	SL.c	Early Postclassic	San Lorenzo	Southern Mexico	Unknown	Unknown	Coe
32	SL.d	Early Postclassic	San Lorenzo	Southern Mexico	Unknown	Unknown	Coe
33	200/1220	Early Postclassic	Coxcatlan Road Site	Central Mexico	Public	Non-Elite, Mound	MacNeish
34	RV4	Early Postclassic	Rio Viejo	Southern Mexico	Residential	Elite	PRV
35	3 12185	Early Postclassic	Rio Viejo	Southern Mexico	Residential	Colluvium, Mound	PRV
36	5070	Early Postclassic	Rio Viejo	Southern Mexico	Residential	Non-Elite (fill)	PRV
37	30.2/2178	Late Postclassic	Nonoalco	Central Mexico	Backdirt	Non-Elite	Vaillant
38	30.2/689	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
39	30.2/690	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
40	30.2/691	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
41	30.2/692	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
42	30.2/693	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant

Thesis ID	Catalogue Number	Time Period	Site	Region	Architectural Context	Status Context	Donor
43	30.2/694	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
44	30.2/695	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
45	30.2/696	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
46	30.2/697	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
47	30.2/698	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
48	30.2/699	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
49	30.2/700	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
50	30.2/701	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
51	30.2/702	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
52	30.2/703	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
53	30.2/705	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
54	30.2/706	Late Postclassic	Chiconauhtla	Central Mexico	Residential	Elite (Palace)	Vaillant
55	30.2/2021	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
56	30.2/2020	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite, Mixed	Vaillant
57	30.2/2019	Late Postclassic	Nonoalco	Central	Residential	Non-Elite,	Vaillant

Thesis ID	Catalogue Number	Time Period	Site	Region	Architectural Context	Status Context	Donor
				Mexico		Mixed	t
58	30.2/2018	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite, Mixed	Vaillant
59	30.2/2017	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
60	30.2/2016	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
61	30.2/2015	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
62	30.2/2012	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
63	30.2/2011	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
64	30.2/2010	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
65	30.2/2009	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
66	30.2/2008	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite, Mixed	Vaillant
67	30.2/2007	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
68	30.2/2006	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
69	30.2/2005	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
70	30.2/2004	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
71	30.2/2003	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant

Thesis ID	Catalogue Number	Time Period	Site	Region	Architectural Context	Status Context	Donor
72	30.2/2002	Late Postclassic	Nonoalco	Central Mexico	Residential	Non-Elite	Vaillant
73	30.1/8186	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
74	30.1/8182	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
75	30.1/8181	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
76	30.1/8180	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
77	30.1/7080	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
78	30.1/8184	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
79	30.1/8183	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
80	30.1/8185	Late Postclassic	Santiago Ahuizotla	Central Mexico	Residential	~Elite	Vaillant
81	200/1219	Early Postclassic	Coxcatlan Road Site	Central Mexico	Public	Non-Elite	Vaillant
82	RV3	Early Postclassic	Rio Viejo	Southern Mexico	Residential fill	Non-Elite	Vaillant
83	30.1/6465	Late Postclassic	Santiago Ahuizotla	Central Mexico	Unknown	Unknown	Vaillant

Spreadsheet of Sample Iconographic Attributes

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
1	SL.e	Early Formative Period	San Lorenzo	Unknown	Unknown	Geometric	Step-Fret			2	2	Roller	
2	200/1005	Early Formative Period	Puebla	Residential	Unknown	Objects	Household	Hooks		1	3	Flat	2.9 x 4.3
3	30.1/8257	Late Formative	Ticomán	Residential	~Elite	Metaphysical Symbols	Nature/Astronomy	Star		2	2	Flat	
4	30.0/9554	Late Formative	Ticomán	Residential	Non-Elite	Human	Foot			1	2	Flat	3 x 2.2
5	30.0/8000	Late Formative	Ticomán	Residential	Non-Elite	Metaphysical Symbols	Numbers	Lines and Dots		1	2	Flat	4.5 x 3.5
6	30.0/6931	Late Formative	Zacatenco	Burial/Midden Wash	~Elite	Blank				0	0	Flat	3 x 2
7	30.0/9348	Late Formative	El Arbolillo	Residential	Mixed	Geometric	Circles			1	1	Roller	
8	Y1	Early Terminal Formative	Yugue	Residential	Non-Elite	Nature	Fauna	Mammal		1	2	Flat	2.12 x 2.41
9	3 8751	Terminal Formative	Cerro de la Virgen	Public	Elite, ~Religious	Nature	Fauna	Bird	Buzzard	1	3	Flat	2.62 x 1.3
10	3 9117	Late	Cerro de	Public	Mixed	Nature	Elements	Reeds		2	4	Flat	3.04 x

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
		Terminal Formative	la Virgen				and Landscape						4.6
11	6424	Late Terminal Formative	Cerro de la Virgen	Residential	Elite, ~offering	Metaphysical Symbols	Nature/Astronomy	Cruciform and Spirals	Water/Air/Stars/Sun Rays	4	5	Flat	5.81 x 4.37
12	1744	Late Terminal Formative	Yugue	Public	Ritual Refuse	Nature	Elements and Landscape	Sun or Lightning		2	3	Flat	3.77 x 2.39
13	8168	Late Terminal Formative	Rio Viejo	Public	~Ritual refuse	Metaphysical Symbols	Nature/Astronomy	Flora	Flower with breath scrolls	2	4	Flat	4.77 x 2.62
14	11701	Late Terminal Formative	Rio Viejo	Public	Mixed	Nature	Flora	Leaf		1	3	Flat	2.73 x 2.03
15	11748.1	Late Terminal Formative	Rio Viejo	Public	Non-Elite	Metaphysical Symbols	Numbers	Flag and Dots		2	3	Flat	4.71 x 4.4
16	11748.2	Late Terminal Formative	Rio Viejo	Public	~Ritual refuse	Fragment				1	3	Flat	7.19 x 4.23
17	12217	Late	Rio Viejo	Public	Ritual	Nature	Flora	Leaf		1	3	Flat	3.25 x

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
		Terminal Formative			Refuse								2.79
18	9511	Late Terminal Formative	Rio Viejo	Public	Non-Elite	Nature	Fauna	Insectoids	Scorpion	2	4	Flat	1.26 x 1.51
19	12130	Late Terminal Formative	Rio Viejo	Public	Ritual Refuse	Fragment				1	3	Flat	3.32 x 1.79
20	30.1/3746	Classic Period	San Juan Teotihuacan	Public	Elite	Blank				1	1	Flat	3 x 2
21	30.1/3745	Classic Period	San Juan Teotihuacan	Public	Elite	Blank				1	1	Flat	2 x 2
22	30.1/3744	Classic Period	San Juan Teotihuacan	Public	Elite	Metaphysical Symbols	Numbers	Lines and Dots		2	1	Flat	5.5 x 3.5
23	30.1/3743*	Classic Period	San Juan Teotihuacan	Public	Elite	Fragment				2	3	Flat	4 x 3.5
24	30.1/3742	Classic Period	San Juan Teotihuacan	Residential	Elite	Human	Foot			1	2	Flat	3 x 3
25	3 12164	Late Classic Period	Loma Don Genaro	Residential	Elite	Geometric	Triangles	Border		1	2	Flat	4.6 x 1.9
26	3 5421	Late Classic	Loma Don	Residential	~Elite	Nature	Elements and	Sun		1	3	Flat	3.76 x 2.83

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
		Period	Genaro				Landscape						
27	3 12026	Late Classic Period	Rio Viejo	Residential	~Elite	Objects	Architecture	Stairs and Platform		1	3	Flat	3.66 x 2.55
28	11079	Late Classic Period	Rio Viejo	Public	Ritual fill, Mixed	Nature	Fauna	Bird	Eagles	3	4	Flat	8.5 x 4.62
29	SL.a	Early Postclassic	San Lorenzo	Unknown	Unknown	Geometric	Concentric Circles			2	2	Flat	
30	SL.b	Early Postclassic	San Lorenzo	Unknown	Unknown	Fragment				2	3	Flat	
31	SL.c	Early Postclassic	San Lorenzo	Unknown	Unknown	Nature	Fauna	Insectoids	Ant	4	4	Flat	
32	SL.d	Early Postclassic	San Lorenzo	Unknown	Unknown	Nature	Fauna	Mammal		3	4	Flat	
33	200/1219	Early Postclassic	Coxcatlan Road Site	Public	Non-Elite	Geometric	Spirals			3	2	Roller	
34	RV3	Early Postclassic	Rio Viejo	Residential	Non-Elite	Geometric	Zig-Zag			5	2	Roller	
35	200/1220	Early Postclassic	Coxcatlan Road Site	Residential	Non-Elite, Mound	Nature	Fauna	Insectoids	Butterflies				
36	RV4	Early Postclassic	Rio Viejo	Residential	~Elite	Nature	Flora	Flower		2	2	Flat	3.23 x 4.95
37	3 12185	Early	Rio Viejo	Public	Colluvi	Geometric	Concentric			1	2	Flat	4.75 x

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
		Postclassic			um, Mound		Circles						2.39
38	5070	Early Postclassic	Rio Viejo	Residential	Non-Elite (fill)	Metaphysical Symbols	Nature/Astronomy	Reeds		2	2	Flat	3.43 x 1.42
39	30.2/2178	Late Postclassic	Nonoalco	Backdirt	Non-Elite	Fragment						Flat	5 x 3
40	30.2/689	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Metaphysical Symbols	Deities	Ehecatl		2	4	Flat	4.6 x 3.2
41	30.2/690	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Elements and Landscape	Lightning	with dot				
42	30.2/691	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Metaphysical Symbols	Deities	Quetzal coatl		3	4	Flat	6.5 x 3.2
43	30.2/692	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Elements and Landscape	Sun		3	4	Flat	3.5 x 3
44	30.2/693	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Metaphysical Symbols	Deities	4 Chaacs		5	5	Flat	4.1 x 3.2
45	30.2/694	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Elements and Landscape	Lightning Cloud		4	5	Flat	3.2 x 2.9
46	30.2/695	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Elements and Landscape	Lightning	with dot				

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
47	30.2/696	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Elements and Landscape	Lightning Cloud		4	5	Flat	2.8 x 2.8
48	30.2/697	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Fragment				0	0	Flat	3.5 x 2.8
49	30.2/698	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Metaphysical Symbols	Nature/Astronomy	Sun/Rain/?		5	5	Flat	5.3 x 4.1
50	30.2/699	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Fauna	Mammal	Monkey	4	4	Flat	4.3 x 4
51	30.2/700	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Fragment				1	3	Flat	2 x 2
52	30.2/701	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Fauna	Insects	Butterflies	5	2	Flat	7 x 6
53	30.2/702	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Metaphysical Symbols	Deities	Quetzalcoatl		4	5	Flat	5.7 x 2
54	30.2/703	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Nature	Elements and Landscape	Lightning?		2	4	Flat	3 x 2.4
55	30.2/705	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Fragment				1	2	Flat	4 x 2.5
56	30.2/706	Late Postclassic	Chiconauhtla	Residential	Elite (Palace)	Metaphysical Symbols	Nature/Astronomy	Flower/Sun?		5	3	Flat	5.3 x 1
57	30.2/2021	Late Postclassic	Nonoalco	Residential	Non-Elite	Nature	Elements and	Lightning or		3	5	Flat	5 x 4

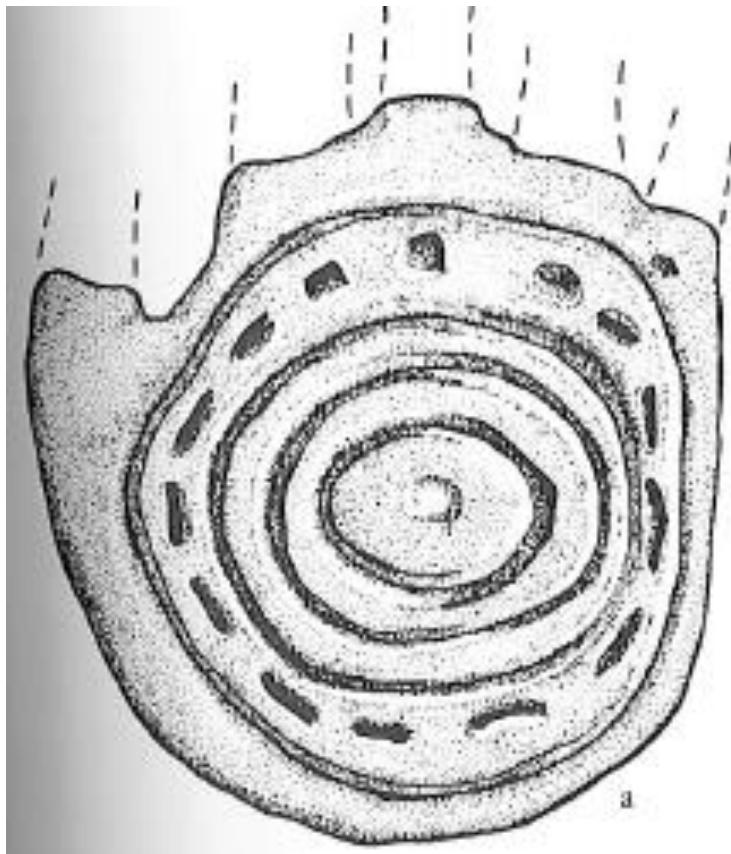
Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
							Landscape	Water					
58	30.2/2020	Late Postclassic	Nonoalco	Residential	Non-Elite, Mixed	Nature	Fauna	Insectoids	Butterflies and Flowers	5	5	Flat	
59	30.2/2019	Late Postclassic	Nonoalco	Residential	Non-Elite, Mixed	Objects	Household	Knot and Tassel		3	4	Flat	3 x 2
60	30.2/2018	Late Postclassic	Nonoalco	Residential	Non-Elite, Mixed	Metaphysical Symbols	Deities	Ehecatl	Aztec Sword	4	3	Flat	4 x 3
61	30.2/2017	Late Postclassic	Nonoalco	Residential	Non-Elite	Metaphysical Symbols	Deities	Quetzal coatl		5	5	Flat	
62	30.2/2016	Late Postclassic	Nonoalco	Residential	Non-Elite	Metaphysical Symbols	Deities	Quetzal coatl		4	5	Flat	4 x 3
63	30.2/2015	Late Postclassic	Nonoalco	Residential	Non-Elite	Metaphysical Symbols	Deities	Quetzal coatl		5	5	Flat	6 x 3
64	30.2/2012	Late Postclassic	Nonoalco	Residential	Non-Elite	Metaphysical Symbols	Deities	Ehecatl	Aztec Sword	5	5	Flat	

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
65	30.2/2011	Late Postclassic	Nonoalco	Residential	Non-Elite	Metaphysical Symbols	Deities	4 Chaacs		5	5	Flat	7 X 4
66	30.2/2010	Late Postclassic	Nonoalco	Residential	Non-Elite	Nature	Fauna	Mammal	Monkey w/ Aztec Sword	5	5	Flat	7 x 5
67	30.2/2009	Late Postclassic	Nonoalco	Residential	Non-Elite	Metaphysical Symbols	Deities	4 Chaacs		4	4	Flat	5 x 2
68	30.2/2008	Late Postclassic	Nonoalco	Residential	Non-Elite, Mixed	Metaphysical Symbols	Nature/Astronomy	Stars	Venus	4	5	Flat	4 x 3
69	30.2/2007	Late Postclassic	Nonoalco	Residential	Non-Elite	Unknown				5	4	Flat	4 x 3
70	30.2/2006	Late Postclassic	Nonoalco	Residential	Non-Elite	Nature	Fauna	Reptiles and Amphibians	Frog or Lizard	4	4	Flat	3 x 3
71	30.2/2005	Late Postclassic	Nonoalco	Residential	Non-Elite	Nature	Fauna	Reptiles and Amphibians	Lizard	3	4	Flat	4 x 3
72	30.2/2004	Late Postclassic	Nonoalco	Residential	Non-Elite	Nature	Elements and	Sun					

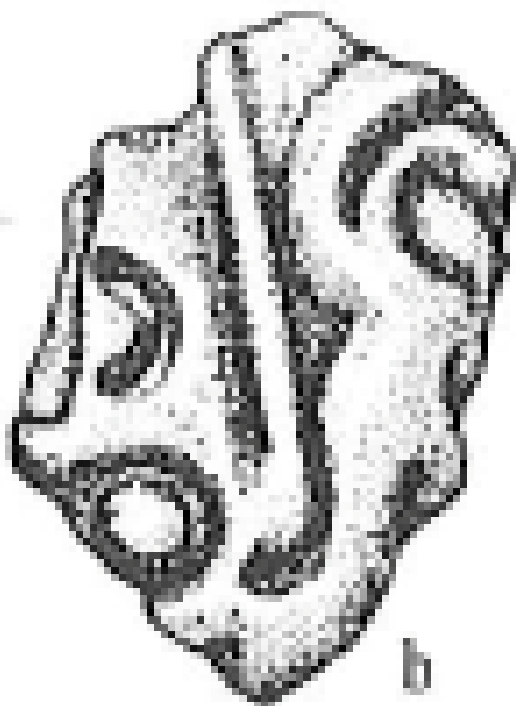
Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
							Landscape						
73	30.2/2003	Late Postclassic	Nonoalco	Residential	Non-Elite	Nature	Elements and Landscape	Sun		2	3	Flat	4 x 3
74	30.2/2002	Late Postclassic	Nonoalco	Residential	Non-Elite	Metaphysical Symbols	Deities	Ehecatl	Aztec Sword	5	5	Flat	6 x 5
75	30.1/8186	Late Postclassic	Santiago Ahuizotla	Residential	Elite	Nature	Flora	Flowers		3	5	Flat	4.4 x 2.5
76	30.1/8182	Late Postclassic	Santiago Ahuizotla	Residential	Elite	Metaphysical Symbols	Nature/Astronomy	Venus					
77	30.1/8181	Late Postclassic	Santiago Ahuizotla	Residential	Elite	Fragment				1	3	Flat	2 x 2.5
78	30.1/8180	Late Postclassic	Santiago Ahuizotla	Residential	Elite	Nature	Fauna	Bird	Eagle	3	5	Flat	4.1 x 2.7
79	30.1/7080	Late Postclassic	Santiago Ahuizotla	Residential	Elite	Metaphysical Symbols	Masked Figure						
80	30.1/8184	Late Postclassic	Santiago Ahuizotla	Residential	Elite	Nature	Elements and Landscape	Hill		5	4	Flat	4.7 x 3.2
81	30.1/8183	Late Postclassic	Santiago Ahuizotl	Residential	Elite	Nature	Elements and	Hill		4	5	Flat	4.9 x 3.4

Thesis ID	Catalogue Number	Time Period	Site	Architectural Context	Status Context	Primary Motif Category	Secondary Motif Category	Tertiary Motif Category		Level	Rank	Form	Size
			a				Landscape						
82	30.1/8185	Late Postclassic	Santiago Ahuitzotla	Residential	Elite	Nature	Elements and Landscape	Hill		4	4	Flat	5.1 x 4.1
83	30.1/6465	Late Postclassic	Santiago Ahuitzotla	Residential	Elite	Nature	Elements and Landscape	Suns or Flowers		5	4	Flat	5.6 x 2.1

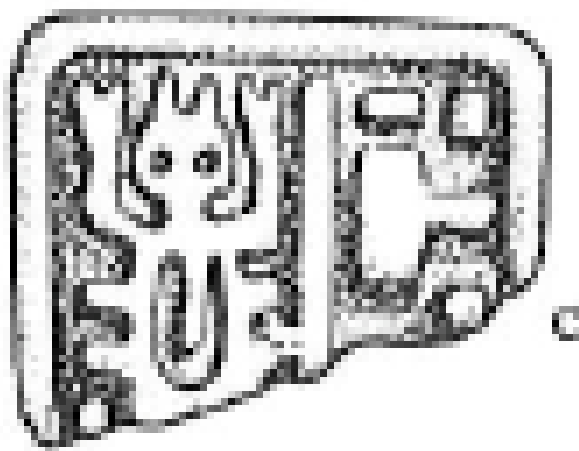
APPENDIX C: STAMP DATASET IMAGES



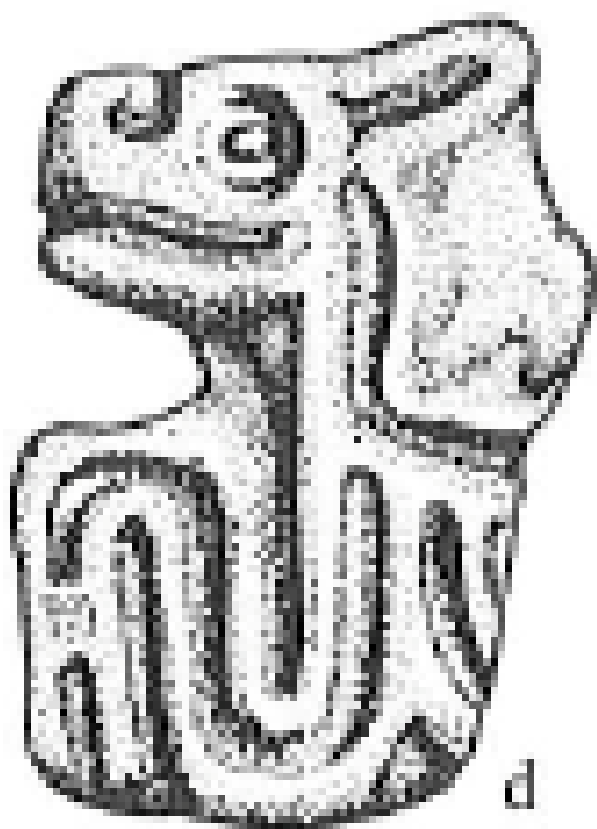
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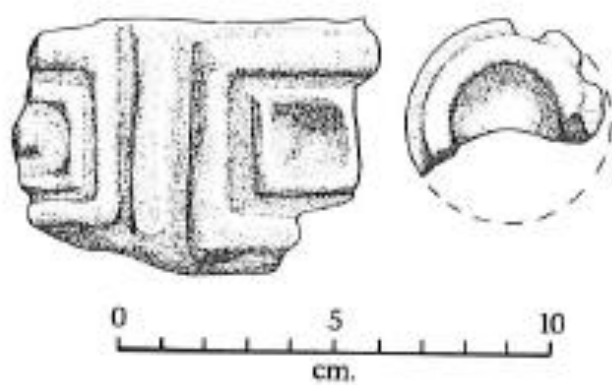
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Catalogue No.: SL.c (Coe and Diehl 1980:289, Figure 413)



Catalogue No.: SL.d (Coe and Diehl 1980:289, Figure 413)



Catalogue No.: Sl.e (Coe and Diehl 1980:289, Figure 412)



Catalogue No.: 200/1005, drawing of Item #200/1005 at the Robert S. Peabody Museum of Archaeology



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Catalogue No.: 30.1/3743, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 30.1/3742, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 3 12164, Photo Credit: Elizabeth R. Peabody



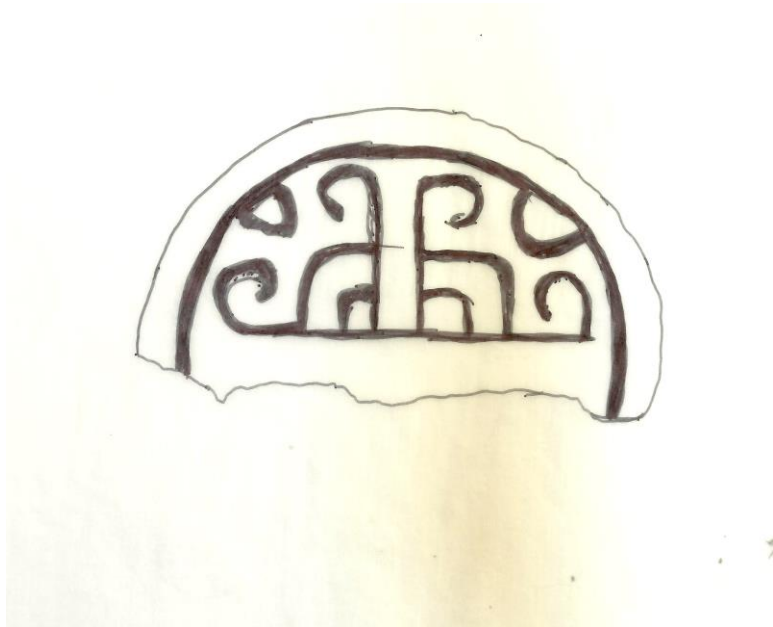
Catalogue No.: 3 5421, Photo Credit: Elizabeth R. Peabody



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Catalogue No.: 200/1220, drawing of Item # 200/1220 at the Robert S. Peabody Museum of Archaeology



Catalogue No.: RV4. Photo Credit: Elizabeth R. Peabody



Catalogue No.: 3 12185, Photo Credit: Elizabeth R. Peabody



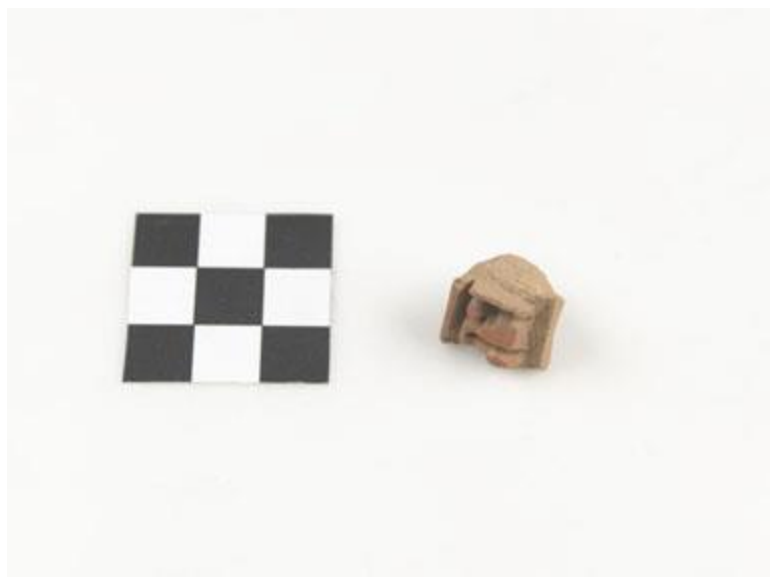
Catalogue No.: 5070, Photo Credit: Elizabeth R. Peabody



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Catalogue No.: 30.2/689, Courtesy of the Division of Anthropology, American Museum of Natural History



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Catalogue No.: 30.1/8182, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 30.1/8181, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 30.1/8180, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 30.1/7080, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 30.1/8184, Courtesy of the Division of Anthropology, American Museum of Natural History



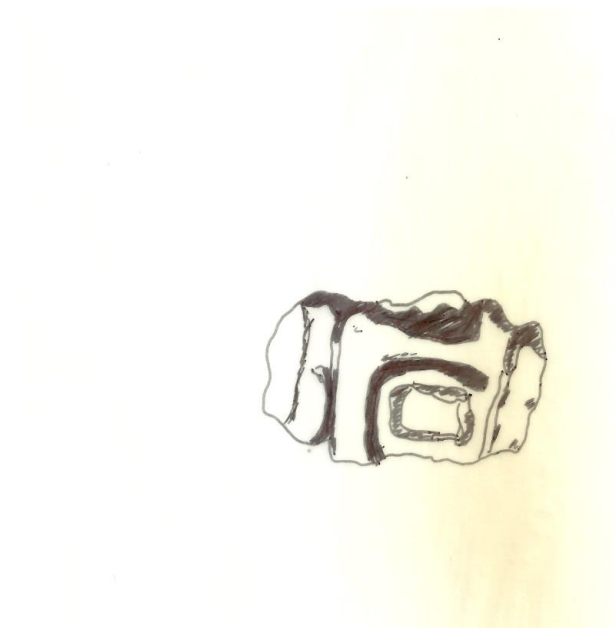
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Catalogue No.: 30.1/8185, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 30.0/9348, Courtesy of the Division of Anthropology, American Museum of Natural History



Catalogue No.: 200/1219, drawing of Item# 200/1219 at the Robert S. Peabody Museum of Archaeology



Catalogue No.: RV3, Photo Credit: Elizabeth R. Peabody



Catalogue No.: 30.1/6465, Courtesy of the Division of Anthropology, American Museum of Natural History

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City:	Orlando	State:	Florida	Zip:	32825
				Country:	USA
Phone:	267-207-8127		Fax:	Off	
Email:	epeabody@knights.ucf.edu				
Artifact catalog number(s) and description:					

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